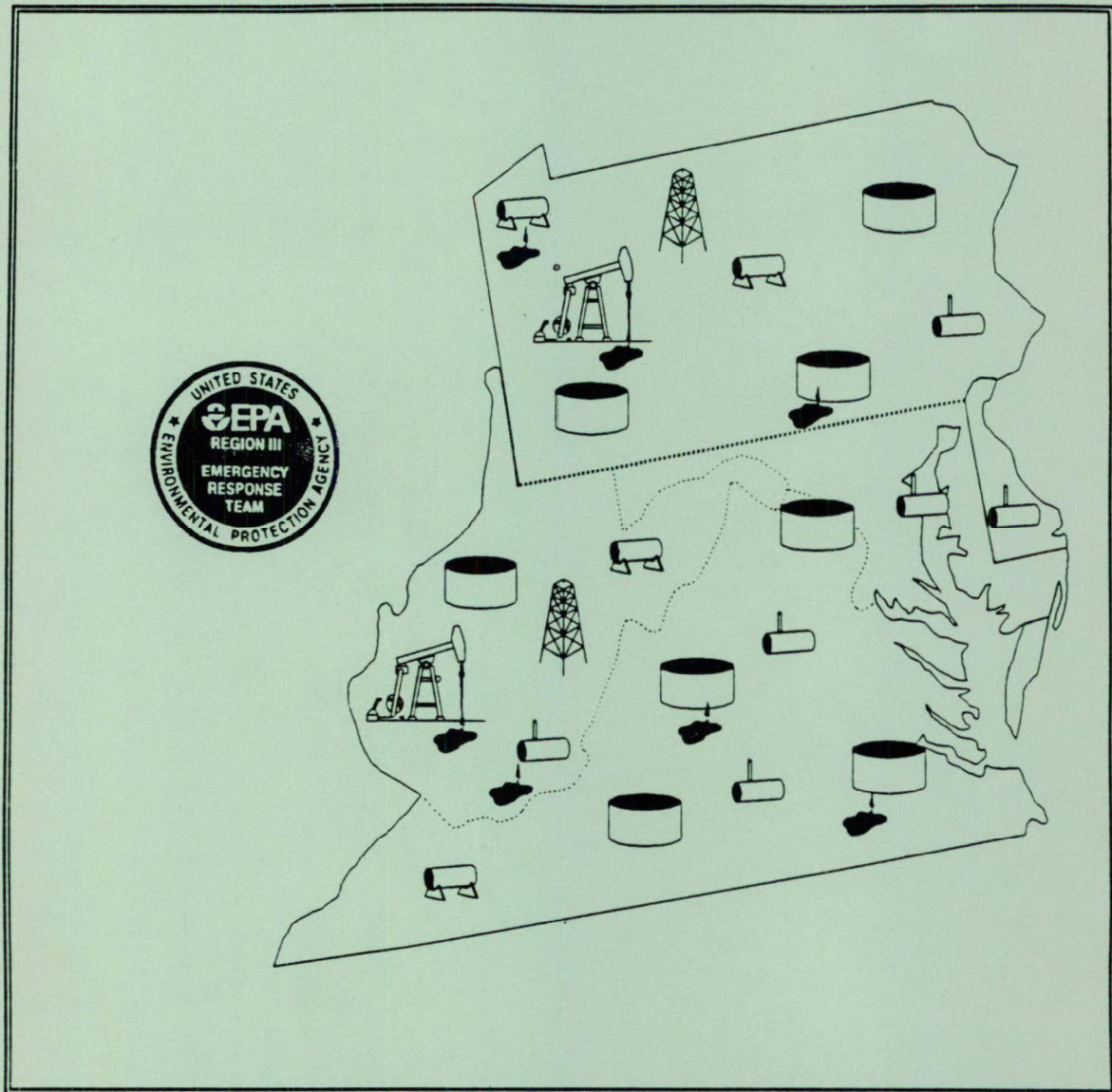


SPILL PREVENTION, CONTROL, AND COUNTERMEASURE (SPCC) INFORMATION GUIDE



AUGUST 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III, SUPERFUND REMOVAL BRANCH
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PHILADELPHIA, PA 19107

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FOREWORD

This document has been prepared by Region III of the U.S. Environmental Protection Agency to aid facilities in developing Spill Prevention, Control, and Countermeasure (SPCC) Plans as required under Title 40, Code of Federal Regulations, Part 112. The information contained in this manual has been compiled from existing regulations, EPA documents, and other guidance documents. This document should not be relied upon as the sole source in developing a site-specific SPCC Plan; it is intended to be used only as a guide in explaining the SPCC regulations. Title 40 CFR 112, which is included in Appendix E, is the standard against which SPCC Plans are judged and should be used as the primary guide in developing SPCC Plans.

For additional information concerning SPCC regulations, call or write the SPCC Coordinator as follows:

Vince Zenone, SPCC Coordinator
U.S. Environmental Protection Agency
Superfund Removal Branch
Oil and Title III Section (3HW34)
841 Chestnut Building
Philadelphia, PA 19107

(215) 597-3038

Should the SPCC Coordinator be unavailable to answer questions, please leave a message on the voice mail system.

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KEY POINTS OF PREVENTION REGULATION

The Environmental Protection Agency (EPA) Oil Pollution Prevention Regulation, Title 40, Code of Federal Regulations, Part 112 (40 CFR Part 112), addresses non-transportation-related facilities. The main requirement of facilities subject to the regulation is the preparation and implementation of a Plan to prevent any discharge of oil into waters of the United States. Such a Plan is referred to as a Spill Prevention, Control, and Countermeasure (SPCC) Plan.

The main thrust of the SPCC regulation is "prevention" of a discharge as opposed to "after-the-fact" (or "reactive") clean-up measures commonly described in spill contingency plans. The regulation applies to any facility engaged in drilling, producing, gathering, storing, processing, refining, transferring or consuming oil and oil products, providing that all three of the following conditions are met:

- The facility is non-transportation-related (see definition of "non-transportation" in Appendix E)..
- The aboveground storage capacity of single container is in excess of 660 gallons, or the aggregate aboveground storage capacity is greater than 1,320 gallons, or the total underground storage capacity is greater than 42,000 gallons.
- Due to its location, oil spilled at the facility could reasonably be expected to reach waters of the United States.

Facilities that are subject to 40 CFR Part 112 must prepare and implement an SPCC Plan in accordance with guidelines outlined in the regulation. The persons actually responsible for preparing and implementing the Plan are owners or operators of facilities subject to regulation, including persons in charge of departments, agencies, and instrumentalities of the Federal or state governments.

GENERAL REQUIREMENTS OF THE SPCC PLAN

There is no rigid format for an SPCC Plan. The guidelines in 40 CFR Part 112 state that the SPCC Plan must be carefully thought out, prepared in accordance with good engineering practices, and approved by management at a level with the authority to commit the resources necessary to implement the Plan.

The SPCC Plan should clearly address three areas:

- Operating procedures to prevent the occurrence of oil spills.
- Control measures to prevent a spill from entering navigable waters.
- Countermeasures to contain, clean up and mitigate the effects of an oil spill that impacts navigable water.

SPILL PREVENTION

An essential element of an SPCC Plan is a description of measures designed to prevent operational error and equipment failure, which cause most spills. Operational errors can be minimized through training programs to maintain a high level of personnel efficiency and awareness of the importance of spill prevention. Equipment failures can be minimized through proper initial selection and construction of processing and storage vessels and pipelines. Regular maintenance of structural integrity and function, and frequent inspections (visual and mechanical) to detect leaks around tank seams, gaskets, rivets and bolts, flange joints, expansion joints, valves, catch pans, and so forth should be conducted.

While personnel training and equipment maintenance programs are based on industry standards and sound engineering practices, the full support of management is essential to develop and implement effective facility-specific programs for training and maintenance.

SPILL CONTROL

Another important element of the SPCC Plan is spill control. EPA Region III is generally concerned with prevention of spills from facilities where positive containment devices and systems are practicable and effective. Dikes, retaining walls, curbing, spill diversion ponds, sumps, etc., fall into the category of positive containment. Only where it is not practicable to provide positive containment does the facility have the option of taking the "contingency" plan approach to spill control. In such a case, the facility owner/operator must clearly demonstrate the impracticability of providing positive containment. The owner/operator must also provide a strong Oil Spill Contingency Plan following the provision of 40 CFR Part 109 (see Appendix C) and a written commitment of personnel, equipment, and materials required to expeditiously control and remove any harmful quantity of oil discharged.

"Impracticability" pertains mainly to those cases where severe space limitations may preclude installation of structures or equipment to prevent oil from reaching water. Demonstrating "impracticability" on the basis of financial considerations is unacceptable because the commitment of resources required to control, remove, and dispose of spilled oil expeditiously would not normally offer any significant economic advantage over providing positive containment.

SPILL COUNTERMEASURES

Contingency plans are considered "reactive" in nature in that they generally describe after-the-fact actions (spill countermeasures) that when properly performed can be expected to mitigate the effects of a spill after it occurs. The aim of the SPCC regulation is to keep spills from occurring, therefore, spill prevention and spill control measures must be given first priority consideration in the preparation of the SPCC Plan.

AMENDMENTS TO THE SPCC PLAN

Once an SPCC Plan has been developed, it may be amended by the U.S. EPA Regional Administrator under certain circumstances or by the facility owner or operator. The Regional Administrator may require amendments to the Plan following a single discharge at the facility in excess of 1,000 gallons, or following two discharges in "harmful quantities" that occur within any twelve-month period and are reportable under the Federal Water Pollution Control Act.

The SPCC regulation requires the owner or operator to amend the Plan whenever there is a change in facility design, construction, operation, or maintenance that materially affects the facility's potential for discharging oil. Such amendments must be fully implemented not later than six months after the change occurs. The regulation also requires the owner or operator to review and evaluate the SPCC Plan every three years, and amending the Plan may be part of this review. Within six months following the review, the owner or operator may amend the Plan to incorporate more effective control and prevention technology if the technology will significantly reduce the likelihood of a release, and the technology has been field proven at the time of the review.

All amendments must be certified by a registered professional engineer per Section 112.5 of the SPCC regulation.

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ELEMENTS OF AN SPCC PLAN

While each SPCC Plan is unique, there are certain elements that must be included almost without exception to make the SPCC Plan comply with the provisions of 40 CFR Part 112. These elements include, but may not be limited to, the following:

1. Name of Facility - The name of the facility may be different from the name of the company that the facility operates under. Include both names if they are different.
2. Type of Facility - Describe briefly the purpose of the facility and the type of activities conducted there.
3. Date of Initial Operation - Provide the date that the facility began operation.
4. Location of the Facility - Provide either a description of the location or an address that can be supported by area maps. Location and topographic maps should be included in the Plan as they can be critical in determining the adverse consequences of an oil spill. Sources for such maps include: the U.S. Geological Survey, state highway department, county highway engineer, local land surveys, and city engineer.
5. Name and Address of Owner - The address of the owner may be the same as or different from the facility location.
6. Designated Person Responsible for Oil Spill Prevention - Provide the name and title of the person with overall responsibility for the facility's spill prevention program. This person should be thoroughly familiar with the SPCC regulation and with the facility's SPCC Plan.
7. Oil Spill History - Provide a detailed history of significant spill events, if any, that occurred in the twelve-month period (from January 10, 1973 to January 10, 1974) prior to the effective date of the regulation. For each spill that occurred within the period, include the following information:

- a. Type and amount of oil spilled.
 - b. Location, date and time of spill(s).
 - c. Watercourse affected.
 - d. Description of physical damage.
 - e. Cost of damage.
 - f. Cost of clean-up.
 - g. Cause of spill.
 - h. Action taken to prevent recurrence.
8. **Management Approval** - Provide a statement about the facility's commitment to the Plan, signed by a person with the authority to commit management to implementation of the SPCC Plan.
 9. **Certification** - Provide a statement of SPCC Plan certification under the seal and signature of a registered professional engineer. The state of registration and the registration number of the certifying engineer must also be provided. The certifying engineer is not required to be registered in the state in which the facility is located.
 10. **Facility Analysis** - Describe the facility operation and indicate the largest magnitude of spill possible. The description should include a discussion of the amount and type of storage, normal increments of transfer or patterns of usage, distribution, processes, etc. In the analysis the direction of flow of spilled oil should be indicated along with any factors that are pertinent or influence spill potential. It is appropriate to support this type of information by charts, tables, plot plans, etc., to aid clarity or promote brevity.
 11. **Facility Inspection** - Incorporate an up-to-date inspection report covering the facility in terms of equipment, containment, operation, drainage, security, etc., if available. An inspection report would best serve more complex facilities and is not necessarily considered an element common to all SPCC Plans.
 12. **Review of the SPCC Plan** - Provide documentation of Plan reviews conducted by the owner or operator. The facility owner or operator must review the SPCC Plan at least once every three years. These reviews must be documented.
 13. **Amendments to the SPCC Plan** - Make amendments of the completed Plan as required by the SPCC regulation.

The complete SPCC Plan, which must follow the sequence outlined in Section 112.7 of the regulation, must include a discussion of the facility's site-specific conformance with the relevant guidelines in the regulation. The SPCC Plan must be certified by a registered professional engineer.

A copy of the entire SPCC Plan must be maintained at the facility if the facility is normally attended at least eight hours per day, or at the nearest field office if the facility is not so attended. The SPCC Plan must be made available to the EPA

Regional Administrator, or to a duly authorized representative, for on-site review during normal working hours.

SPCC PLAN GUIDELINES

Several industrial trade associations have developed suggested guidelines for use by their members in preparing SPCC Plans. Generally, such guidelines are available for particular types of facilities and may be very helpful. For example, the American Petroleum Institute has prepared a bulletin entitled "Suggested Procedure for Development of Spill Prevention Control and Countermeasure Plans" (API Bulletin D 16). This bulletin, designed primarily for oil production facilities, may be used in addition to the regulations and other guidance documents to develop an SPCC Plan. Care should be taken, however, to not rely completely on any standardized format. Each SPCC Plan must be unique to the facility. Development of a unique Plan requires detailed knowledge of the facility and of the potential impact that any spill may have.

An example SPCC Plan for a modest-sized oil storage facility is included as Appendix A.

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QUESTIONS FREQUENTLY ASKED

What is the U.S. Environmental Protection Agency's Oil Pollution Prevention Regulation?

It is a regulation that tries to prevent a discharge of oil into or upon the navigable waters of the United States by establishing certain requirements for owners or operators of facilities that drill, produce, gather, store, process, refine, transfer, or consume oil. The text of the regulation is found in Title 40 of the Code of Federal Regulations, Part 112 (40 CFR Part 112).

What does the regulation require a facility to do?

The regulation requires that all subject facilities have a fully prepared and implemented Spill Prevention Control and Countermeasure (SPCC) Plan. Facilities in existence at the time the regulation went into effect in 1974 were required to have a Plan prepared within six months of the effective date of the regulation, and to have implemented the Plan within one year of the effective date of the regulation. New facilities must prepare an SPCC Plan within six months of the date they commence operations; they must implement the Plan within one year of the date operations begin.

What constitutes an SPCC Plan?

An SPCC Plan is a detailed, site-specific written description of how a facility's operation complies with the guidelines in the regulation (Section 112.7).

Who is required to prepare an SPCC Plan?

The owner or operator of the facility subject to regulation is required to prepare a written SPCC Plan, which must be certified by a registered professional engineer (Section 112.3 and 112.7).

When did this regulation go into effect?

The regulation was promulgated on December 11, 1973, and went into effect on January 10, 1974.

Which facilities are subject to the regulation?

A facility is subject to the regulation if it is a non-transportation-related facility (either onshore or offshore), if due to its location it could reasonably be expected to discharge oil into waters of the United States if a spill should occur and if it has:

1. Total aboveground oil storage capacity in excess of 1,320 gallons or a single container (tank, drum, transformer, etc.) in excess of 660 gallons; or
2. Total underground oil storage capacity in excess of 42,000 gallons.

The facility must address all aboveground and underground storage capacities once subject to 40 CFR Part 112.

A facility may be exempt from the regulation if due to its location it could not reasonably be expected to discharge oil into or upon the navigable waters of the United States. The exemption determination is based on consideration of such geographical aspects of the facility as proximity to navigable waters, land contour, drainage, and so forth. The determination must exclude consideration of man-made features such as dikes, equipment, or other structures that would inhibit a discharge from reaching navigable waters.

What is a non-transportation-related facility?

All fixed facilities, including support equipment, but excluding interstate pipelines, railroad tank cars en route, transport trucks en route and terminals associated with the transfer of bulk oil to or from a water transportation vessel, are considered non-transportation-related facilities.

The term also includes mobile or portable facilities such as onshore drilling or workover rigs, barge-mounted offshore drilling or workover rigs, and portable fueling facilities while they are in a fixed, operating mode. In fact, such facilities may not operate unless the SPCC Plan has been implemented.

What is a transportation-related facility?

Any facility that transfers and transports oil beyond the boundaries of a facility is considered a transportation-related facility. Examples of such facilities are pipeline systems, including related pumps and appurtenances; in-line or break-out storage tanks needed for the continuous operation of the system; and highway vehicles and railroad cars that are used for oil transport off of the facility grounds.

Can a facility be both transportation and non-transportation related?

Yes. Part of a facility's operation may be transportation-related and part may be non-transportation-related. Those parts that are non-transportation-related are subject to the SPCC regulation.

What determines the reasonability of a discharge to navigable waters?

Reasonability is determined on the basis of the location of the facility in relation to a stream, ditch, or storm sewer; the volume of material likely to be spilled; drainage patterns; soil conditions; and so forth. The presence of manmade structures that would inhibit the flow of oil is not considered when making the determination.

Is a facility still subject to the regulation if it is located in such a manner that any spill that may occur would not be expected to discharge into the waters of the United States?

No. However, the determination of exemption should be made very carefully. If any oil could reach a sewer line, drainage ditch, etc., that discharges into navigable waters, either directly or indirectly, then the facility is subject to the regulation.

Who determines whether or not a facility would reasonably be expected to discharge oil into navigable waters?

The facility owner or operator makes the determination.

What if the owner or operator decides the facility is exempt from the regulation and the decision is wrong?

The facility could be subject to the penalty provisions of the regulation for failure to comply.

What are the requirements for certifying the Plan by a registered professional engineer (P.E.)?

The engineer should be familiar with the provisions of 40 CFR Part 112, must have examined the facility and be a registered professional engineer in at least one state. The engineer need not be registered in the state in which the facility is located. The engineer's name, registration number, and state of registration must be included as part of the SPCC Plan (Section 112.3). In addition, the engineer's seal must be affixed to the Plan as part of the certification.

When the SPCC Plan is completed and certified, is it sent to EPA for review?

No. A certified copy of the SPCC Plan is required to be available at the facility for EPA on-site review if the facility is attended at least eight hours a day. If the

facility is attended less than eight hours a day, then the SPCC Plan must be kept at the nearest company office. However, if the facility has a single discharge of more than 1,000 gallons or two discharges of harmful quantities in any twelve month period, the Plan must be sent to the EPA for review.

Who reviews the SPCC Plan and how often is the SPCC Plan reviewed?

The owner or operator is required to review the SPCC Plan at least once every three years. The review must be documented.

Who can amend an SPCC Plan?

The owner or operator of a facility may amend an SPCC Plan to include updated information and to reflect changes in procedure. In certain cases, the EPA Regional Administrator may require the amendment of a facility's SPCC Plan.

When must an SPCC Plan be amended by the facility operator?

The regulation requires the owner or operator to amend the Plan within six months following a review to incorporate more effective control and prevention technologies if the technology will significantly reduce the likelihood of a release, and the technology has been field proven at the time of the review. The owner or operator must also amend the SPCC Plan whenever there is a change in the facility design, construction, operation or maintenance that materially affects the facility's potential for discharge into navigable waters of the United States or adjoining shorelines (Section 112.5). Such amendments must be fully implemented no later than six months after the change occurs.

Amendments must be certified by a registered professional engineer in accordance with Section 112.3 of the regulation.

When might an SPCC Plan be amended by the EPA?

The U.S. EPA Regional Administrator may amend the Plan following a single discharge at the facility in excess of 1,000 gallons, or following two discharges within any twelve-month period that are in "harmful quantities" and are reportable under the Federal Water Pollution Control Act. Within 60 days following such a discharge(s), the facility owner or operator must submit the SPCC Plan to the Regional Administrator and to the state agency in charge of water pollution control activities. The owner or operator must also submit a description of the causes of the spill and the corrective actions taken. Additional information pertaining to the Plan or spill event that the Regional Administrator may reasonably require must also accompany the Plan.

After review of the SPCC Plan, the Regional Administrator may inform the facility owner or operator that amendments to the Plan are proposed as deemed necessary to prevent any future discharges. Within 30 days of notification of

the Regional Administrator's decision, the owner or operator may submit written information, views, and arguments on the proposal. The Regional Administrator will consider this new information and may either notify the owner or operator of any amendments required or rescind the original proposal. Any required amendments must become part of the facility's SPCC Plan within 30 days after notification and must be implemented within six months after the amendments become part of the Plan.

Amendments made in this manner must also be certified by a registered professional engineer in accordance with Section 112.3 of the regulation.

When a production lease consists of several operations, such as wells, oil/water separators, collection systems, tank batteries, etc., does each operation require a separate SPCC Plan?

No. One SPCC Plan may include all operations within a single geographical area; however, each operation must be addressed in the SPCC Plan.

Is every loss of oil or oil product subject to a penalty?

A discharge is defined in the Federal Water Pollution Control Act as including, but not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping that enters the waters of the U.S. or the adjoining shorelines in harmful quantities.

1. If a spill occurs and enters the water, a penalty will be assessed.
2. If a spill occurs and is prevented from entering the water, a penalty may or may not be assessed.

What is considered to be a harmful quantity?

A harmful quantity of oil is a discharge that results in a violation of applicable water quality standards; causes a film or sheen upon the water or adjoining shorelines; discolors the water or adjoining shorelines or causes an emulsion or sludge to be deposited beneath the surface of the water or upon adjoining shorelines.

What are considered navigable waters?

Navigable waters of the U.S. are defined in Section 502(7) of the Federal Water Pollution Control Act (FWPCA), and include:

- 1) All navigable waters of the U.S., as defined in judicial decisions prior to the passage of the 1972 amendments to the FWPCA, and the tributaries of such waters;
- 2) Interstate waters, including interstate wetlands;

- 3) Intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and
- 4) Intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

What penalties are assessed for failure to comply with the regulation?

Section 112.6 of 40 CFR Part 112 authorizes the U.S. EPA Regional Administrator to assess a civil penalty up to \$5,000 per day of violation.

The guidance for determining penalties is addressed in 40 CFR Part 114.

When should the National Response Center (800-424-8802, toll free) be called?

Any discharge of oil involving U.S. waters must be reported to the National Response Center by the person in charge of the vessel, facility or vehicle from which the discharge occurs. Threats of discharges or releases should also be reported. The procedures for such notifications are set forth in 33 CFR Part 153, 40 CFR Part 110, 40 CFR Part 112 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

Does a state spill plan meet the requirements of a Federal SPCC Plan?

Not necessarily. If the state spill plan is intended to be used as the Federal SPCC Plan, it must meet or exceed all the requirements under 40 CFR Part 112. The state spill plan must express clearly that it addresses both the state and Federal regulations.

What counts toward storage capacity?

Storage capacity includes the capacity of all tanks with openings that are not permanently sealed closed; it also includes smaller containers such as 55-gallon drums, 5-gallon buckets, etc. The capacity of any empty tanks or containers that are used to store oil and are not permanently sealed are also counted in the facility total storage capacity.

Does the term "oil" include vegetable oil, transformer oil, and other non-petroleum based oil?

Yes. "Oil" is defined in 40 CFR Section 112.2 as oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil. This definition has been interpreted to include vegetable oil, mineral oil, transformer oil and other oils.

Are transformers covered under SPCC regulation?

Electrical transformers and similar equipment are covered by the SPCC regulation provided that they contain sufficient quantities of oil, and, due to location, can reasonably be expected to spill their oil into navigable waters or adjoining shorelines.

If the drainage from a facility discharges into a sewer system, is this facility required to have an SPCC Plan?

If the sewer is a storm sewer or combined sewer and the spill could reasonably be expected to reach navigable waters, a Plan would be required. If the flow from the sewer is entirely treated in a sewage treatment plant, then an engineering assessment should be made by the owner or operator as to whether or not the treatment system could handle the maximum possible volume of oil without exceeding the permitted amount at the plant. If the system could not handle the oil, then an SPCC Plan would be required.

Are SPCC Plans required for hazardous substances or hazardous wastes?

Only in the event that the hazardous substances or hazardous wastes are mixed with oil.

Must secondary containments be provided for transfer operations (i.e., for a tanker truck loading/unloading fuel at a facility)?

Yes. The secondary containment system should be designed to hold at least maximum capacity of any single compartment of a tank car or tank truck loading or unloading at the facility. This is not to say that a truck must park within a diked area for loading/unloading. The regulation allows flexibility here for diversion structures such as curbing or diking to channel a potential spill to a secondary containment structure. Transfer of oil to water transportation vessels is not covered under the SPCC regulations.

If a tank is taken out of service, what measures must a facility take in order to be exempt from SPCC regulations?

Any tank taken out of service must have all pipes and fittings sealed in order to be excluded from facility storage capacity calculations. If, after the tanks are taken out of service, the facility storage capacity is below regulatory amounts as described in the answer to question 3, then the facility will be exempt from the SPCC regulations.

Do the SPCC regulations spell out design requirements for diking, curbing, etc?

The SPCC regulations require diked areas for storage tanks to be sufficiently impervious to contain any spilled oil. All bulk storage tank installations should be constructed so that a secondary means of containment is provided for the

entire contents of the largest single tank plus sufficient freeboard to allow for precipitation. Containment curbs and pits are sometimes used as secondary containments, but they may not always be appropriate.

Are double walled tanks and other alternative aboveground storage tanks satisfactory to meet the secondary containment requirements for SPCC?

Double walled tanks may provide adequate secondary containment; however, the valving must be designed so that accidental release from the inner tank (from such occurrences as an inadvertent valve opening or a failure) are completely contained within the outer tank. The inner tank should be an Underwriters' Laboratory-listed steel tank, the outer wall should be constructed in accordance with nationally accepted industry standards (e.g., those codified by the American Petroleum Institute, the Steel Tank Institute, and American Concrete Institute), the tank should have an overfill alarm and an automatic flow restrictor or flow shut-off, and all product transfers should be constantly monitored.

Other "alternative aboveground storage tanks," such as small tanks with an attached shop-fabricated containment dike, with capacities less than 12,000 gallons, may be satisfactory in meeting the secondary containment requirements for SPCC. If "alternative aboveground storage tanks" are utilized, an SPCC Plan must still be prepared and certified by a registered professional engineer. If the engineer does not certify that these tanks will provide adequate secondary containment, other containment systems must be implemented.

Must each tank, drum, or other oil storage container have individual secondary containment?

Not necessarily. A single dike may be used for a group of containers. A dike for a tank battery is required to contain the volume of the largest single tank within the battery plus sufficient freeboard to allow for precipitation. The dike should be sufficiently impervious to contain any spilled oil from the tank battery.

Should tanks be inspected by the facility?

Yes. All aboveground tanks should be subject to periodic integrity testing, taking into account tank design and using such techniques as hydrostatic testing, visual inspection or a system of non-destructive shell thickness testing. Tank supports and foundations should be included in these inspections.

Buried storage tanks represent a potential for undetected spills. A new buried installation should be protected from corrosion by coatings. Buried tanks should at least be subject to regular pressure testing.

Is a partially buried tank or a tank in an underground basement or vault considered to be underground storage?

No. To qualify as buried storage, a tank must be completely covered by earth. Tanks that are in an underground basement or vault and those that are partially buried do not qualify as underground storage. Buried tanks have inherent release protection from the containing action of the surrounding earth, whereas vaulted and partially buried tanks do not.

What authorities do states have under SPCC regulation?

Section 311 of the Clean Water Act does not permit EPA to delegate the SPCC Program to the states. States may perform SPCC inspections at the request of the EPA; however, the overall review process of the inspection is the responsibility of the EPA. This review process is handled within the Regional EPA office.

Where can I get additional information concerning SPCC regulations?

Call or write the SPCC Coordinator as follows:

Vince Zenone, SPCC Coordinator - 3HW34
U.S. Environmental Protection Agency Region III
841 Chestnut Building
Philadelphia, PA 19107
(215) 597-3038

Should the SPCC Coordinator be unavailable to answer questions, please leave a message on the voice mail system.

APPENDIX A

EXAMPLE SPCC PLAN

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EXAMPLE

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

TEX'S BULK STORAGE TERMINAL

100 Everspill Road
Post Office Box 311 (K)
Oily City, USA 12345
Telephone (123) ~~222-2222~~

SJ Oil Company
P.O. Box 00002
Crude City, USA 77777

CONTACT
Steve Bob Doe, Manager

CERTIFICATION: I hereby certify that I have examined the facility, and, being familiar with the provisions of 40 CFR Part 112, attest that this SPCC Plan has been prepared in accordance with good engineering practices.

ENGINEER: Christopher Columbus

SIGNATURE:

REGISTRATION NUMBER: 98765

(seal)

STATE: Of the Union

DATE: June 11, 1974

1. NAME OF OWNERSHIP

Name: SJ Oil Company - Tex's Bulk Storage Terminal
100 Everspill Road
P.O. Box 311(K)
Oily City, USA 12345
Telephone: (123) 222-2222

Manager: Steve Bob Doe
505 Oil Road
Oily City, USA 12345
Telephone: (123) 222-3333

Owner: SJ Oil Company
P.O. Box 00002
Crude City, USA 77000

Other Personnel: Secretary-Bookkeeper
Dispatcher
Transport Driver
Delivery Personnel (3)

Service Area: North-West County

2. DESCRIPTION OF FACILITY

Tex's Bulk Storage Terminal of the SJ Oil Company handles, stores, and distributes petroleum products in the form of motor gasoline, kerosene, and No. 2 fuel oil. The accompanying drawing shows the property boundaries and adjacent highway drainage ditches, buildings on site, and oil-handling facilities.

Fixed Storage:

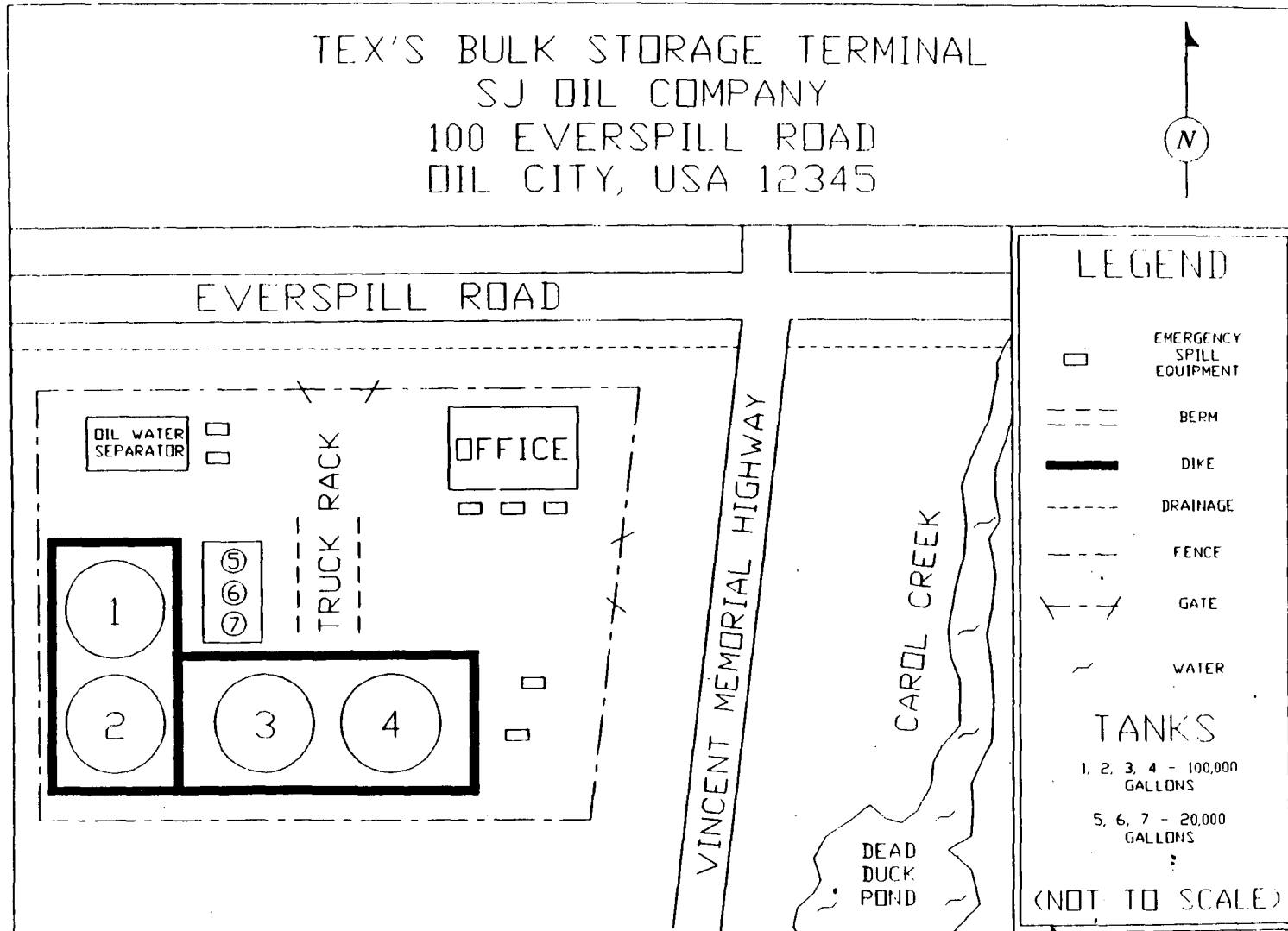
- (2) 100,000-gallon vertical tanks (premium gasoline)
- (2) 100,000-gallon vertical tanks (regular gasoline)
- (2) 20,000-gallon vertical tanks (No. 2 fuel oil)
- (1) 20,000-gallon vertical tank (kerosene)

Total: 460,000 gallons

Vehicles:

- (1) Transport truck
- (4) Tankwagon delivery trucks

DRAWING OF TEX'S BULK STORAGE TERMINAL - FACILITY LAYOUT



3. POTENTIAL SPILL VOLUMES AND RATES

<u>Potential Event</u>	<u>Volume Released</u>	<u>Spill Rate</u>
Complete failure of a full tank	100,000 gallons	Instantaneous
Partial failure of a full tank	1 to 99,000 gallons	Gradual to instantaneous
Tank overfill	1 to several gallons	Up to 1 gallon per minute
Pipe failure	Up to 20,000 gallons	4 gallons per second
Leaking pipe or valve packing	Several ounces to several gallons	Up to 1 gallon per minute
Leak during truck loading	1 to several gallons	Up to 1 gallon per minute

4. SPILL PREVENTION AND CONTROL

A. Storage Tanks

1. Each tank is UL-142 construction (aboveground use).
2. Each tank is equipped with a direct-reading gauge. Venting capacity is suitable for the fill and withdrawal rates.
3. A dike surrounds each tank installation. Each dike wall has been constructed and designed to local, state, and Federal engineering regulations. The contained volume (height versus area) is computed based on the single largest tank within (100,000 gallons) and allowance is made for all additional vertical tank displacement volumes below the dike height (estimated spill liquid level), and for precipitation. A 2-inch water drain is located at the lowest point within the dike enclosure, and it connects to a normally closed gate-valve outside the dike. The gate valve is manually operated. Rainwater contained within this dike is examined prior to release to ensure that harmful quantities of oil are not discharged.
4. After a fill pipe is used, a bucket is placed under it to catch any product that might drip from the pipe.
5. There are no buried or partially buried tanks at this facility.

6. Tanks are subject to periodic integrity testing and inspection. Tank supports, foundations, and piping are included in these inspections, and proper records are kept. The exterior of the tanks are examined frequently.
7. Materials stored on the site for spill countermeasures include bagged absorbent, sorbent pads, and booms. There is a sand-filled catchment basin for minor, routine spillage at loading pump intakes and loading racks. The catchment basin will contain greater than the largest compartment of the largest tank truck loaded or unloaded at this facility. Sand will be placed as needed, and any oil-contaminated sand is disposed of properly.
8. Failsafe engineering mechanisms are in place.
 - a. Tanks are equipped with high-level alarms.
 - b. Tanks are equipped with visual gauges.

B. FACILITY TRANSFER OPERATIONS

1. Buried pipes are properly protected against corrosion. If a section of buried pipe is exposed, it is examined for deterioration.
2. Pipelines not in service or on standby for an extended period are capped or blank-flagged, and marked as to their origin.
3. All pipe supports are properly designed to minimize abrasion and corrosion, and to allow for expansion and contraction.
4. Aboveground pipelines and valves are examined periodically to assess their condition.
5. Warning signs are posed as needed to prevent vehicles from damaging pipelines.
6. Curbing is installed at the vehicle loading racks.

5. SPILL COUNTERMEASURES

The front highway drainage ditch on the property's northern boundary crosses the highway through a culvert headed eastward and eventually leads to Carol Creek, located approximately one-half mile away. Emergency containment action will consist of erecting an earthen dam and placing absorbent materials at the entrance to the culvert. Sorbent boom will be strategically placed on Carol Creek, upstream of Dead Duck Pond, to contain oil that will be recovered and disposed of according to generally accepted procedures. Personnel, materials, equipment, are committed to ensuring that this contingency plan is

implemented in such a manner that no oil reaches Dead Duck Pond, which is an environmentally sensitive ecosystem.

6. PAST SPILL EXPERIENCE

None.

7. SECURITY

- a. The bulk plant is surrounded by steel security fencing, and the gate is locked when the plant is unattended.
- b. Tank drain valves and all other valves that will permit direct outward flow of a tank's contents are locked in the closed position when not in use. The electrical controls for the pumps are also locked in the closed position when not in use.
- c. The loading and unloading connections of pipelines are capped when not in service.
- d. Two area lights are located in such a position so as to illuminate the office and storage areas.

8. PERSONNEL

Facility personnel have been instructed by management in the following spill prevention and countermeasure plans:

- a. No tanks or compartments are to be filled without checking reserves prior to commencing the filling operation.
- b. No pump operations are to continue unless attended constantly.
- c. At appropriate locations are displayed warning signs to remind personnel to check line disconnections before vehicle departures.
- d. Training has been held on oil-spill prevention, containment, and retrieval methods. A "dry-run" drill for an on-site vehicular spill has been conducted.
- e. Instructions and phone numbers regarding the report of a spill to the National Response Center and the state have been publicized and posted at the office.
- f. Instructions and company regulations relating to oil spill prevention and countermeasure procedures have been posted conspicuously.

9. EMERGENCY TELEPHONE NUMBERS

A. NOTIFICATION PROCEDURES

1. Steve Bob Doe, Facility Manager (123) 222-3333
2. National Response Center (800) 424-8802
3. State Response Mechanism (123) 555-2221

B. CLEAN-UP CONTRACTORS

1. E-Z Clean Environmental (123) 222-3038
2. O.K. Engineers, Inc. (123) 222-2207

C. SUPPLIES AND EQUIPMENT

1. Oily City Equipment Co. (123) 222-8372
2. Northwestern Sorbent Co. (123) 222-9217

10. REVIEW DATES

6/08/77 (signature)

6/01/80 (signature)

6/10/83 (signature)

6/09/86 (signature)

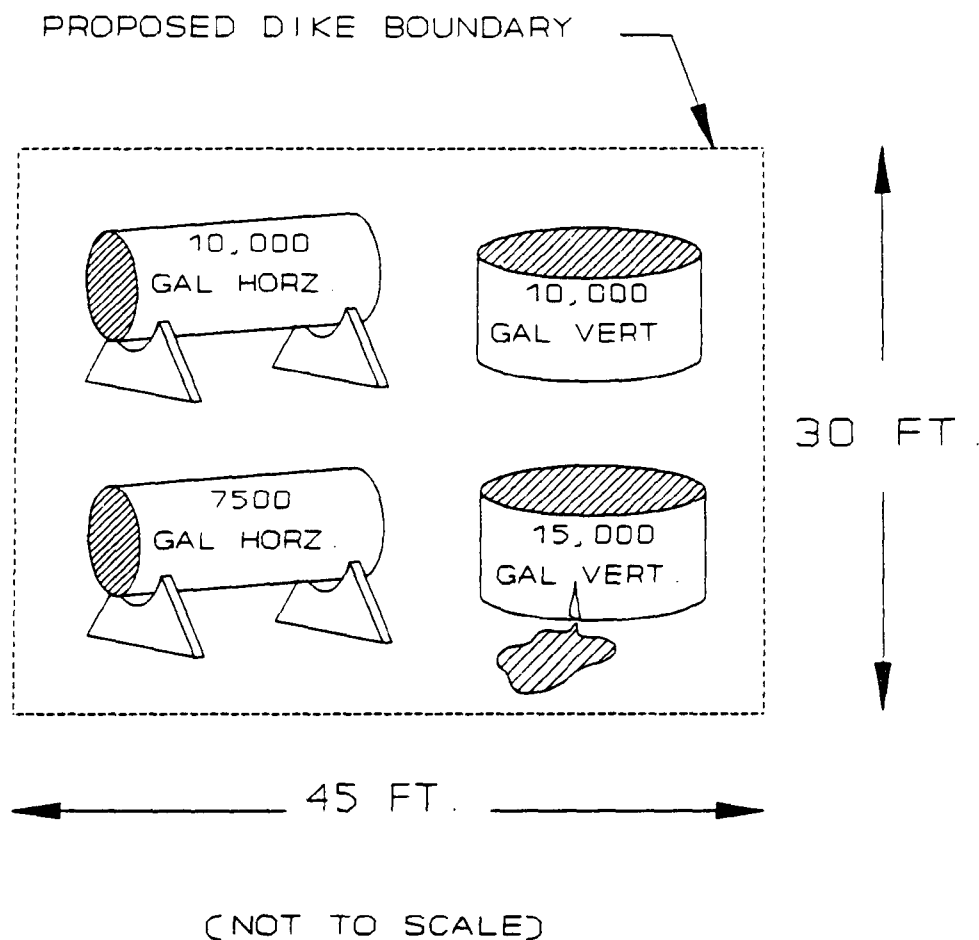
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APPENDIX B
DIKE DESIGNS

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1. SAMPLE DIKE HEIGHT CALCULATION:



Calculations for this example:

- a. Minimum Containment Volume (mCV) must be equal to the single largest tank volume within the diked area:

$$\text{mCV} = \text{tank gallons} \times 0.1337 \text{ cu. ft./gal}$$

$$\text{mCV} = 15,000 \text{ gal.} \times 0.1337 \text{ cu. ft./gal} = 2,006 \text{ cu. ft.}$$

$$\text{mCV} = \underline{2,006 \text{ cu. ft.}}$$

- b. Available Dike Area (DA) is the length times the width of the proposed dike boundary:

$$\text{DA} = \text{L} \times \text{W}$$

$$\text{DA} = 30 \text{ ft.} \times 45 \text{ ft.} = 1,350 \text{ sq. ft.}$$

$$\text{DA} = \underline{1,350 \text{ sq. ft.}}$$

- c. Dike wall height (H) can be calculated from the mCV and DA:

$$H = \frac{\text{mCV}}{\text{DA}}$$

$$H = \frac{2,006 \text{ cu. ft.}}{1,350 \text{ sq. ft.}} = 1.486 \text{ ft.}$$

$$H = \underline{1.486 \text{ ft.}}$$

- d. Note that the volume of the un-ruptured tanks within the diked area subtract from the minimum containment volume. Actual calculations should take this into account so the dike height should be larger to accommodate this and provide sufficient "freeboard" for precipitation.

APPENDIX C
40 CFR PART 109

PART 109—CRITERIA FOR STATE, LOCAL AND REGIONAL OIL REMOVAL CONTINGENCY PLANS**Sec.**

109.1 Applicability.

109.2 Definitions.

109.3 Purpose and scope.

109.4 Relationship to Federal response actions.

109.5 Development and implementation criteria for State, local and regional oil removal contingency plans.

109.5 Coordination.

AUTHORITY: Sec. 11(j)(1)(B), 84 Stat. 96, 33 U.S.C. 1161(j)(1)(B).

SOURCE: 36 FR 22485, Nov. 25, 1971, unless otherwise noted.

§ 109.1 Applicability.

The criteria in this part are provided to assist State, local and regional agencies in the development of oil removal contingency plans for the inland navigable waters of the United States and all areas other than the high seas, coastal and contiguous zone waters, coastal and Great Lakes ports and harbors and such other areas as may be agreed upon between the Environmental Protection Agency and the Department of Transportation in accordance with section 11(j)(1)(B) of the Federal Act, Executive Order No. 11548 dated July 20, 1970 (35 FR 11677) and § 306.2 of the National Oil and Hazardous Materials Pollution Contingency Plan (35 FR 8511).

§ 109.2 Definitions.

As used in these guidelines, the following terms shall have the meaning indicated below:

(a) *Oil* means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.

(b) *Discharge* includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping.

(c) *Remove or removal* refers to the removal of the oil from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare, including, but not limited to, fish, shellfish, wildlife, and public and private property, shorelines, and beaches.

(d) *Major disaster* means any hurricane, tornado, storm, flood, high water, wind-driven water, tidal wave, earthquake, drought, fire, or other catastrophe in any part of the United States which, in the determination of the President, is or threatens to become of sufficient severity and magnitude to warrant disaster assistance by the Federal Government to supplement the efforts and available resources of States and local governments and relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.

(e) *United States* means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Canal Zone, Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands.

(f) *Federal Act* means the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1151, et seq.

§ 109.3 Purpose and scope.

The guidelines in this part establish minimum criteria for the development and implementation of State, local, and regional contingency plans by State and local governments in consultation with private interests to insure timely, efficient, coordinated and effective action to minimize damage resulting from oil discharges. Such plans will be directed toward the protection of the public health or welfare of the United States, including, but not limited to, fish, shellfish, wildlife, and public and private property, shorelines, and beaches. The development and implementation of such plans shall be consistent with the National Oil and Hazardous Materials Pollution Contingency Plan. State, local and regional oil removal contingency plans shall provide for the coordination of the total response to an oil discharge so that contingency organizations established thereunder can function independently, in conjunction with each other, or in conjunction with the National and Regional Response Teams established by the National Oil and Hazardous Materials Pollution Contingency Plan.

§ 109.4 Relationship to Federal response actions.

The National Oil and Hazardous Materials Pollution Contingency Plan provides that the Federal on-scene commander shall investigate all reported spills. If such investigation shows that appropriate action is being taken by either the discharger or non-Federal entities, the Federal on-scene commander shall monitor and provide advice or assistance, as required. If appropriate containment or cleanup action is not being taken by the dis-

charger or non-Federal entities, the Federal on-scene commander will take control of the response activity in accordance with section 11(c)(1) of the Federal Act.

§ 109.5 Development and implementation criteria for State, local and regional oil removal contingency plans.

Criteria for the development and implementation of State, local and regional oil removal contingency plans are:

(a) Definition of the authorities, responsibilities and duties of all persons, organizations or agencies which are to be involved or could be involved in planning or directing oil removal operations, with particular care to clearly define the authorities, responsibilities and duties of State and local governmental agencies to avoid unnecessary duplication of contingency planning activities and to minimize the potential for conflict and confusion that could be generated in an emergency situation as a result of such duplications.

(b) Establishment of notification procedures for the purpose of early detection and timely notification of an oil discharge including:

(1) The identification of critical water use areas to facilitate the reporting of and response to oil discharges.

(2) A current list of names, telephone numbers and addresses of the responsible persons and alternates on call to receive notification of an oil discharge as well as the names, telephone numbers and addresses of the organizations and agencies to be notified when an oil discharge is discovered.

(3) Provisions for access to a reliable communications system for timely notification of an oil discharge and incorporation in the communications system of the capability for interconnection with the communications systems established under related oil removal contingency plans, particularly State and National plans.

(4) An established, prearranged procedure for requesting assistance during a major disaster or when the situation exceeds the response capability of the State, local or regional authority.

(c) Provisions to assure that full resource capability is known and can be committed during an oil discharge situation including:

(1) The identification and inventory of applicable equipment, materials and supplies which are available locally and regionally.

(2) An estimate of the equipment, materials and supplies which would be required to remove the maximum oil discharge to be anticipated.

(3) Development of agreements and arrangements in advance of an oil discharge for the acquisition of equipment, materials and supplies to be used in responding to such a discharge.

(d) Provisions for well defined and specific actions to be taken after discovery and notification of an oil discharge including:

(1) Specification of an oil discharge response operating team consisting of trained, prepared and available operating personnel.

(2) Predesignation of a properly qualified oil discharge response coordinator who is charged with the responsibility and delegated commensurate authority for directing and coordinating response operations and who knows how to request assistance from Federal authorities operating under existing national and regional contingency plans.

(3) A preplanned location for an oil discharge response operations center and a reliable communications system for directing the coordinated overall response operations.

(4) Provisions for varying degrees of response effort depending on the severity of the oil discharge.

(5) Specification of the order of priority in which the various water uses are to be protected where more than one water use may be adversely affected as a result of an oil discharge and where response operations may not be adequate to protect all uses.

(e) Specific and well defined procedures to facilitate recovery of damages and enforcement measures as provided for by State and local statutes and ordinances.

§ 109.6 Coordination.

For the purposes of coordination, the contingency plans of State and local governments should be developed and implemented in consultation with private interests. A copy of any oil removal contingency plan developed by State and local governments should be forwarded to the Council on Environmental Quality upon request to facilitate the coordination of these contingency plans with the National Oil and Hazardous Materials Pollution Contingency Plan.

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APPENDIX D
40 CFR PART 110

PART 110—DISCHARGE OF OIL

Sec.

- 110.1 Definitions.
- 110.2 Applicability.
- 110.3 Discharge into navigable waters of such quantities as may be harmful.
- 110.4 Discharge into contiguous zone of such quantities as may be harmful.
- 110.5 Discharge beyond contiguous zone of such quantities as may be harmful.
- 110.6 Discharge prohibited.
- 110.7 Exception for vessel engines.
- 110.8 Dispersants.
- 110.9 Demonstration projects.
- 110.10 Notice.
- 110.11 Discharge at deepwater ports.

AUTHORITY: Secs. 311 (b)(3) and (b)(4) and 501(a), Federal Water Pollution Control Act, as amended (33 U.S.C. 1321 (b)(3) and (b)(4) and 1361(a)); sec. 18(m)(3) of the Deepwater Port Act of 1974 (33 U.S.C. 1517(m)(3)); E.O. 11735, 38 FR 21243, 3 CFR Parts 1971-1975 Comp., p. 793.

SOURCE: 52 FR 10719, Apr. 2, 1987, unless otherwise noted.

§ 110.1 Definitions.

As used in this part, the following terms shall have the meaning indicated below:

Act means the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq., also known as the Clean Water Act;

Administrator means the Administrator of the Environmental Protection Agency (EPA);

Applicable water quality standards means State water quality standards adopted by the State pursuant to section 303 of the Act or promulgated by EPA pursuant to that section;

Contiguous zone means the entire zone established or to be established by the United States under article 24 of the Convention on the Territorial Sea and the Contiguous Zone;

Deepwater port means an offshore facility as defined in section (3)(10) of the Deepwater Port Act of 1974 (33 U.S.C. 1502(10));

Discharge, when used in relation to section 311 of the Act, includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping, but excludes (A) discharges in compliance with a permit under section 402 of the Act, (B) discharges resulting from circumstances identified and reviewed and made a part of the public record with respect to a permit issued or modified under section 402 of the Act, and subject to a condition in such permit, and (C) continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of the Act, that are caused by events occurring within the scope of relevant operating or treatment systems;

MARPOL 73/78 means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, Annex I, which regulates pollution from oil and which entered into

force on October 2, 1983;

Navigable waters means the waters of the United States, including the territorial seas. The term includes:

(a) All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;

(b) Interstate waters, including interstate wetlands;

(c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, and wetlands, the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) That are or could be used by interstate or foreign travelers for recreational or other purposes;

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce;

(3) That are used or could be used for industrial purposes by industries in interstate commerce;

(d) All impoundments of waters otherwise defined as navigable waters under this section;

(e) Tributaries of waters identified in paragraphs (a) through (d) of this section, including adjacent wetlands; and

(f) Wetlands adjacent to waters identified in paragraphs (a) through (e) of this section: Provided, That waste treatment systems (other than cooling ponds meeting the criteria of this paragraph) are not waters of the United States;

NPDES means National Pollutant Discharge Elimination System;

Offshore facility means any facility of any kind located in, on, or under any of the navigable waters of the United States, and any facility of any kind that is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel;

Oil, when used in relation to section 311 of the Act, means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil, when used in relation to section 18(m)(3) of the Deepwater Port Act of 1974, has the meaning provided in section 3(14) of the Deepwater Port Act of 1974;

Onshore facility means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under any land within the United States, other than submerged land;

Person includes an individual, firm, corporation, association, and a partnership;

Public vessel means a vessel owned or bareboat chartered and operated by the United States, or by a State or political subdivision thereof, or by a for-

eign nation, except when such vessel is engaged in commerce;

Sheen means an iridescent appearance on the surface of water;

Sludge means an aggregate of oil or oil and other matter of any kind in any form other than dredged spoil having a combined specific gravity equivalent to or greater than water;

United States means the States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands;

Vessel means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel; and

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include playa lakes, swamps, marshes, bogs and similar areas such as sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and natural ponds.

§ 110.2 Applicability.

The regulations of this part apply to the discharge of oil prohibited by section 311(b)(3) of the Act. This includes certain discharges into or upon the navigable waters of the United States or adjoining shorelines or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act). The regulations of this part also define the term "discharge" for purposes of section 18(m)(3) of the Deepwater Port Act of 1974, as provided under § 110.11 of this part.

§ 110.3 Discharge into navigable waters of such quantities as may be harmful.

For purposes of section 311(b) of the Act, discharges of oil into or upon the navigable waters of the United States or adjoining shorelines in such quantities that it has been determined may be harmful to the public health or welfare of the United States, except as provided in § 110.7 of this part, include discharges of oil that:

(a) Violate applicable water quality standards, or

(b) Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

§ 110.4 Discharge into contiguous zone of such quantities as may be harmful.

For purposes of section 311(b) of the Act, discharges of oil into or upon the waters of the contiguous zone in such quantities that it has been determined may be harmful to the public health or welfare of the United States, except as provided in § 110.7, include discharges of oil that:

(a) Violate applicable water quality standards, or

(b) Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

§ 110.5 Discharge beyond contiguous zone of such quantities as may be harmful.

For purposes of section 311(b) of the Act, discharges of oil into or upon waters seaward of the contiguous zone in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act) in such quantities that it has been determined may be harmful to the public health or welfare of the United States, except as provided in § 110.7, include discharges of oil that:

(a) Violate applicable water quality standards, or

(b) Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

§ 110.6 Discharge prohibited.

As provided in section 311(b)(3) of the Act, no person shall discharge or cause or permit to be discharged into or upon the navigable waters of the United States or adjoining shorelines or into or upon the waters of the contiguous zone or into or upon waters seaward of the contiguous zone in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act) any oil in such quantities as may be harmful as determined in §§ 110.3, 110.4, and 110.5, except as the same may be permitted in the contiguous zone and seaward under MARPOL 73/78, Annex I, as provided in 33 CFR 151.09.

§ 110.7 Exception for vessel engines.

For purposes of section 311(b) of the Act, discharges of oil from a properly

functioning vessel engine are not deemed to be harmful, but discharges of such oil accumulated in a vessel's bilges shall not be so exempt.

§ 110.8 Dispersants.

Addition of dispersants or emulsifiers to oil to be discharged that would circumvent the provisions of this part is prohibited.

§ 110.9 Demonstration projects.

Notwithstanding any other provisions of this part, the Administrator may permit the discharge of oil, under section 311 of the Act, in connection with research, demonstration projects, or studies relating to the prevention, control, or abatement of oil pollution.

§ 110.10 Notice.

Any person in charge of a vessel or of an onshore or offshore facility shall, as soon as he or she has knowledge of any discharge of oil from such vessel or facility in violation of § 110.6, immediately notify the National Response Center (NRC) (800-424-8802; in the Washington, DC metropolitan area, 426-2675). If direct reporting to the NRC is not practicable, reports may be made to the Coast Guard or EPA predesignated On-Scene Coordinator (OSC) for the geographic area where the discharge occurs. All such reports shall be promptly relayed to the NRC. If it is not possible to notify the NRC or the predesignated OCS immediately, reports may be made immediately to the nearest Coast Guard unit, provided that the person in charge of the vessel or onshore or offshore facility notifies the NRC as soon as possible. The reports shall be made in accordance with such procedures as the Secretary of Transportation may prescribe. The procedures for such notice are set forth in U.S. Coast Guard regulations, 33 CFR part 153, subpart B and in the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR part 300, subpart E. (Approved by the Office of Management and Budget under the control number 2050-0046)

§ 110.11 Discharge at deepwater ports.

(a) Except as provided in paragraph (b) below, for purposes of section 18(m)(3) of the Deepwater Port Act of 1974, the term "discharge" shall include but not be limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping into the marine environment of quantities of oil that:

(1) Violate applicable water quality standards, or

(2) Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or

upon adjoining shorelines.

(b) For purposes of section 18(m)(3) of the Deepwater Port Act of 1974, the term "discharge" excludes:

(1) Discharges of oil from a properly functioning vessel engine, (including an engine on a public vessel), but not discharges of such oil accumulated in a vessel's bilges (unless in compliance with MARPOL 73/78, Annex I); and

(2) Discharges of oil permitted under MARPOL 73/78, Annex I.

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APPENDIX E

40 CFR PART 112

PART 112—OIL POLLUTION PREVENTION

Sec.

- 112.1 General applicability.
- 112.2 Definitions.
- 112.3 Requirements for preparation and implementation of Spill Prevention Control and Countermeasure Plans.
- 112.4 Amendment of SPCC Plans by Regional Administrator.
- 112.5 Amendment of Spill Prevention Control and Countermeasure Plans by owners or operators.
- 112.6 Civil penalties for violation of oil pollution prevention regulations.
- 112.7 Guidelines for the preparation and implementation of a Spill Prevention Control and Countermeasure Plan.

APPENDIX—MEMORANDUM OF UNDERSTANDING BETWEEN THE SECRETARY OF TRANSPORTATION AND THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

AUTHORITY: Secs. 311(j)(1)(C), 311(j)(2), 501(a), Federal Water Pollution Control Act (sec. 2, Pub. L. 92-500, 86 Stat. 816 et seq. (33 U.S.C. 1251 et seq.)); sec. 4(b), Pub. L. 92-500, 86 Stat. 897; 5 U.S.C. Reorg. Plan of 1970 No. 3 (1970), 35 FR 15623, 3 CFR 1966-1970 Comp.; E.O. 11735, 38 FR 21243, 3 CFR.

SOURCE: 38 FR 34165, Dec. 11, 1973, unless otherwise noted.

§ 112.1 General applicability.

(a) This part establishes procedures, methods and equipment and other requirements for equipment to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable waters of the United States or adjoining shorelines.

(b) Except as provided in paragraph (d) of this section, this part applies to owners or operators of non-transportation-related onshore and offshore facilities engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing or consuming oil and oil products, and which, due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in part 110 of this chapter, into or upon the navigable waters of the United States or adjoining shorelines.

(c) As provided in section 313 (86 Stat. 875) departments, agencies, and instrumentalities of the Federal government are subject to these regulations to the same extent as any person, except for the provisions of § 112.6.

..(d) This part does not apply to:

(1) Facilities, equipment or operations which are not subject to the jurisdiction of the Environmental Protection Agency, as follows:

(i) Onshore and offshore facilities, which, due to their location, could not reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines. This determination shall be based solely upon a consideration of the geographical, locational aspects

of the facility (such as proximity to navigable waters or adjoining shorelines, land contour, drainage, etc.) and shall exclude consideration of man-made features such as dikes, equipment or other structures which may serve to restrain, hinder, contain, or otherwise prevent a discharge of oil from reaching navigable waters of the United States or adjoining shorelines; and

(ii) Equipment or operations of vessels or transportation-related onshore and offshore facilities which are subject to authority and control of the Department of Transportation, as defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, 36 FR 24000.

(2) Those facilities which, although otherwise subject to the jurisdiction of the Environmental Protection Agency, meet both of the following requirements:

(i) The underground buried storage capacity of the facility is 42,000 gallons or less of oil, and

(ii) The storage capacity, which is not buried, of the facility is 1,320 gallons or less of oil, provided no single container has a capacity in excess of 660 gallons.

(e) This part provides for the preparation and implementation of Spill Prevention Control and Countermeasure Plans prepared in accordance with § 112.7, designed to complement existing laws, regulations, rules, standards, policies and procedures pertaining to safety standards, fire prevention and pollution prevention rules, so as to form a comprehensive balanced Federal/State spill prevention program to minimize the potential for oil discharges. Compliance with this part does not in any way relieve the owner or operator of an onshore or an offshore facility from compliance with other Federal, State or local laws.

[38 FR 34165, Dec. 11, 1973, as amended at 41 FR 12657, Mar. 26, 1976]

§ 112.2 Definitions.

For the purposes of this part:

(a) *Oil* means oil of any kind or in any form, including, but not limited to petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil.

(b) *Discharge* includes but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping. For purposes of this part, the term *discharge* shall not include any discharge of oil which is authorized by a permit issued pursuant to section 13 of the River and Harbor Act of 1899 (30 Stat. 1121, 33 U.S.C. 407), or sections 402 or 405 of the FWPCA Amendments of 1972 (86 Stat. 816 et seq., 33 U.S.C. 1251 et seq.).

(c) *Onshore facility* means any facility

ty of any kind located in, on, or under any land within the United States, other than submerged lands, which is not a transportation-related facility.

(d) *Offshore facility* means any facility of any kind located in, on, or under any of the navigable waters of the United States, which is not a transportation-related facility.

(e) *Owner or operator* means any person owning or operating an onshore facility or an offshore facility, and in the case of any abandoned offshore facility, the person who owned or operated such facility immediately prior to such abandonment.

(f) *Person* includes an individual, firm, corporation, association, and a partnership.

(g) *Regional Administrator*, means the Regional Administrator of the Environmental Protection Agency, or his designee, in and for the Region in which the facility is located.

(h) *Transportation-related and non-transportation-related* as applied to an onshore or offshore facility, are defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, 36 FR 24080.

(i) *Spill event* means a discharge of oil into or upon the navigable waters of the United States or adjoining shorelines in harmful quantities, as defined at 40 CFR part 110.

(j) *United States* means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Canal Zone, Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands.

(k) The term *navigable waters* of the United States means *navigable waters* as defined in section 502(7) of the FWPCA, and includes:

(1) All navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972 Amendments to the FWPCA (Pub. L. 92-500), and tributaries of such waters;

(2) Interstate waters;

(3) Intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and

(4) Intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

(l) *Vessel* means every description of watercraft or other artificial contrivance used, or capable of being used as a means of transportation on water, other than a public vessel.

§ 112.3 Requirements for preparation and implementation of Spill Prevention Control and Countermeasure Plans.

(a) Owners or operators of onshore and offshore facilities in operation on or before the effective date of this

part that have discharged or, due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR part 110, into or upon the navigable waters of the United States or adjoining shorelines, shall prepare a Spill Prevention Control and Countermeasure Plan (hereinafter "SPCC Plan"), in writing and in accordance with § 112.7. Except as provided for in paragraph (f) of this section, such SPCC Plan shall be prepared within six months after the effective date of this part and shall be fully implemented as soon as possible, but not later than one year after the effective date of this part.

(b) Owners or operators of onshore and offshore facilities that become operational after the effective date of this part, and that have discharged or could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR part 110, into or upon the navigable waters of the United States or adjoining shorelines, shall prepare an SPCC Plan in accordance with § 112.7. Except as provided for in paragraph (f) of this section, such SPCC Plan shall be prepared within six months after the date such facility begins operations and shall be fully implemented as soon as possible, but not later than one year after such facility begins operations.

(c) Owners or operators of onshore and offshore mobile or portable facilities, such as onshore drilling or workover rigs, barge mounted offshore drilling or workover rigs, and portable fueling facilities shall prepare and implement an SPCC Plan as required by paragraphs (a), (b) and (d) of this section. The owners or operators of such facility need not prepare a new SPCC Plan each time the facility is moved to a new site. The SPCC Plan may be a general plan, prepared in accordance with § 112.7, using good engineering practice. When the mobile or portable facility is moved, it must be located and installed using the spill prevention practices outlined in the SPCC Plan for the facility. No mobile or portable facility subject to this regulation shall operate unless the SPCC Plan has been implemented. The SPCC Plan shall only apply while the facility is in a fixed (non-transportation) operating mode.

(d) No SPCC Plan shall be effective to satisfy the requirements of this part unless it has been reviewed by a Registered Professional Engineer and certified to by such Professional Engineer. By means of this certification the engineer, having examined the facility and being familiar with the provisions of this part, shall attest that the SPCC Plan has been prepared in accordance with good engineering practices. Such certification shall in no way relieve the owner or operator of an onshore or offshore facility of

his duty to prepare and fully implement such Plan in accordance with § 112.7, as required by paragraphs (a), (b) and (c) of this section.

(e) Owners or operators of a facility for which an SPCC Plan is required pursuant to paragraph (a), (b) or (c) of this section shall maintain a complete copy of the Plan at such facility if the facility is normally attended at least 8 hours per day, or at the nearest field office if the facility is not so attended, and shall make such Plan available to the Regional Administrator for on-site review during normal working hours.

(f) Extensions of time.

(1) The Regional Administrator may authorize an extension of time for the preparation and full implementation of an SPCC Plan beyond the time permitted for the preparation and implementation of an SPCC Plan pursuant to paragraph (a), (b) or (c) of this section where he finds that the owner or operator of a facility subject to paragraphs (a), (b) or (c) of this section cannot fully comply with the requirements of this part as a result of either nonavailability of qualified personnel, or delays in construction or equipment delivery beyond the control and without the fault of such owner or operator or their respective agents or employees.

(2) Any owner or operator seeking an extension of time pursuant to paragraph (f)(1) of this section may submit a letter of request to the Regional Administrator. Such letter shall include:

(i) A complete copy of the SPCC Plan, if completed;

(ii) A full explanation of the cause for any such delay and the specific aspects of the SPCC Plan affected by the delay;

(iii) A full discussion of actions being taken or contemplated to minimize or mitigate such delay;

(iv) A proposed time schedule for the implementation of any corrective actions being taken or contemplated, including interim dates for completion of tests or studies, installation and operation of any necessary equipment or other preventive measures.

In addition, such owner or operator may present additional oral or written statements in support of his letter of request.

(3) The submission of a letter of request for extension of time pursuant to paragraph (f)(2) of this section shall in no way relieve the owner or operator from his obligation to comply with the requirements of § 112.3 (a), (b) or (c). Where an extension of time is authorized by the Regional Administrator for particular equipment or other specific aspects of the SPCC Plan, such extension shall in no way affect the owner's or operator's obligation to comply with the requirements of § 112.3 (a), (b) or (c) with respect to other equipment or other specific aspects of the SPCC Plan for which an

extension of time has not been expressly authorized.

[38 FR 34165, Dec. 11, 1973, as amended at 41 FR 12657, Mar. 26, 1976]

§ 112.4 Amendment of SPCC Plans by Regional Administrator.

(a) Notwithstanding compliance with § 112.3, whenever a facility subject to § 112.3 (a), (b) or (c) has: Discharged more than 1,000 U.S. gallons of oil into or upon the navigable waters of the United States or adjoining shorelines in a single spill event, or discharged oil in harmful quantities, as defined in 40 CFR part 110, into or upon the navigable waters of the United States or adjoining shorelines in two spill events, reportable under section 311(b)(5) of the FWPCA, occurring within any twelve month period, the owner or operator of such facility shall submit to the Regional Administrator, within 60 days from the time such facility becomes subject to this section, the following:

(1) Name of the facility;

(2) Name(s) of the owner or operator of the facility;

(3) Location of the facility;

(4) Date and year of initial facility operation;

(5) Maximum storage or handling capacity of the facility and normal daily throughput;

(6) Description of the facility, including maps, flow diagrams, and topographical maps;

(7) A complete copy of the SPCC Plan with any amendments;

(8) The cause(s) of such spill, including a failure analysis of system or subsystem in which the failure occurred;

(9) The corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements;

(10) Additional preventive measures taken or contemplated to minimize the possibility of recurrence;

(11) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or spill event.

(b) Section 112.4 shall not apply until the expiration of the time permitted for the preparation and implementation of an SPCC Plan pursuant to § 112.3 (a), (b), (c) and (f).

(c) A complete copy of all information provided to the Regional Administrator pursuant to paragraph (a) of this section shall be sent at the same time to the State agency in charge of water pollution control activities in and for the State in which the facility is located. Upon receipt of such information such State agency may conduct a review and make recommendations to the Regional Administrator as to further procedures, methods, equipment and other requirements for equipment necessary to prevent and to contain discharges of oil from such fa-

cility.

(d) After review of the SPCC Plan for a facility subject to paragraph (a) of this section, together with all other information submitted by the owner or operator of such facility, and by the State agency under paragraph (c) of this section, the Regional Administrator may require the owner or operator of such facility to amend the SPCC Plan if he finds that the Plan does not meet the requirements of this part or that the amendment of the Plan is necessary to prevent and to contain discharges of oil from such facility.

(e) When the Regional Administrator proposes to require an amendment to the SPCC Plan, he shall notify the facility operator by certified mail addressed to, or by personal delivery to, the facility owner or operator, that he proposes to require an amendment to the Plan, and shall specify the terms of such amendment. If the facility owner or operator is a corporation, a copy of such notice shall also be mailed to the registered agent, if any, of such corporation in the State where such facility is located. Within 30 days from receipt of such notice, the facility owner or operator may submit written information, views, and arguments on the amendment. After considering all relevant material presented, the Regional Administrator shall notify the facility owner or operator of any amendment required or shall rescind the notice. The amendment required by the Regional Administrator shall become part of the Plan 30 days after such notice, unless the Regional Administrator, for good cause, shall specify another effective date. The owner or operator of the facility shall implement the amendment of the Plan as soon as possible, but not later than six months after the amendment becomes part of the Plan, unless the Regional Administrator specifies another date.

(f) An owner or operator may appeal a decision made by the Regional Administrator requiring an amendment to an SPCC Plan. The appeal shall be made to the Administrator of the United States Environmental Protection Agency and must be made in writing within 30 days of receipt of the notice from the Regional Administrator requiring the amendment. A complete copy of the appeal must be sent to the Regional Administrator at the time the appeal is made. The appeal shall contain a clear and concise statement of the issues and points of fact in the case. It may also contain additional information from the owner or operator, or from any other person. The Administrator or his designee may request additional information from the owner or operator, or from any other person. The Administrator or his designee shall render a decision within 60 days of receiving the appeal and shall notify the owner or operator of his decision.

[38 FR 34165, Dec. 11, 1973, as amended at 41 FR 12658, Mar. 26, 1976]

§ 112.5 Amendment of Spill Prevention Control and Countermeasure Plans by owners or operators.

(a) Owners or operators of facilities subject to § 112.3 (a), (b) or (c) shall amend the SPCC Plan for such facility in accordance with § 112.7 whenever there is a change in facility design, construction, operation or maintenance which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shore lines. Such amendments shall be fully implemented as soon as possible, but not later than six months after such change occurs.

(b) Notwithstanding compliance with paragraph (a) of this section, owners and operators of facilities subject to § 112.3 (a), (b) or (c) shall complete a review and evaluation of the SPCC Plan at least once every three years from the date such facility becomes subject to this part. As a result of this review and evaluation, the owner or operator shall amend the SPCC Plan within six months of the review to include more effective prevention and control technology if: (1) Such technology will significantly reduce the likelihood of a spill event from the facility, and (2) if such technology has been field-proven at the time of the review.

(c) No amendment to an SPCC Plan shall be effective to satisfy the requirements of this section unless it has been certified by a Professional Engineer in accordance with § 112.3(d).

§ 112.6 Civil penalties for violation of oil pollution prevention regulations.

Owners or operators of facilities subject to § 112.3 (a), (b) or (c) who violate the requirements of this part 112 by failing or refusing to comply with any of the provisions of § 112.3, § 112.4 or § 112.5 shall be liable for a civil penalty of not more than \$5,000 for each day such violation continues. Civil penalties shall be imposed in accordance with procedures set out in part 114 of this subchapter D.

(Secs. 311(j), 501(a), Pub. L. 92-500, 86 Stat. 868, 885 (33 U.S.C. 1321(j), 1361(a)))
[39 FR 31802, Aug. 29, 1974]

§ 112.7 Guidelines for the preparation and implementation of a Spill Prevention Control and Countermeasure Plan.

The SPCC Plan shall be a carefully thought-out plan, prepared in accordance with good engineering practices, and which has the full approval of management at a level with authority to commit the necessary resources. If the plan calls for additional facilities

or procedures, methods, or equipment not yet fully operational, these items should be discussed in separate paragraphs, and the details of installation and operational start-up should be explained separately. The complete SPCC Plan shall follow the sequence outlined below, and include a discussion of the facility's conformance with the appropriate guidelines listed:

(a) A facility which has experienced one or more spill events within twelve months prior to the effective date of this part should include a written description of each such spill, corrective action taken and plans for preventing recurrence.

(b) Where experience indicates a reasonable potential for equipment failure (such as tank overflow, rupture, or leakage), the plan should include a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each major type of failure.

(c) Appropriate containment and/or diversionary structures or equipment to prevent discharged oil from reaching a navigable water course should be provided. One of the following preventive systems or its equivalent should be used as a minimum:

- (1) Onshore facilities:
 - (i) Dikes, berms or retaining walls sufficiently impervious to contain spilled oil;
 - (ii) Curbing;
 - (iii) Culverting, gutters or other drainage systems;
 - (iv) Weirs, booms or other barriers;
 - (v) Spill diversion ponds;
 - (vi) Retention ponds;
 - (vii) Sorbent materials.
- (2) Offshore facilities:
 - (i) Curbing, drip pans;
 - (ii) Sumps and collection systems.

(d) When it is determined that the installation of structures or equipment listed in § 112.7(c) to prevent discharged oil from reaching the navigable waters is not practicable from any onshore or offshore facility, the owner or operator should clearly demonstrate such impracticability and provide the following:

(1) A strong oil spill contingency plan following the provision of 40 CFR part 109.

(2) A written commitment of manpower, equipment and materials required to expeditiously control and remove any harmful quantity of oil discharged.

(e) In addition to the minimal prevention standards listed under § 112.7(c), sections of the Plan should include a complete discussion of conformance with the following applicable guidelines, other effective spill prevention and containment procedures (or, if more stringent, with State rules, regulations and guidelines):

(1) *Facility drainage (onshore); (excluding production facilities).* (i) Drainage from diked storage areas

should be restrained by valves or other positive means to prevent a spill or other excessive leakage of oil into the drainage system or inplant effluent treatment system, except where plan systems are designed to handle such leakage. Diked areas may be emptied by pumps or ejectors; however, these should be manually activated and the condition of the accumulation should be examined before starting to be sure no oil will be discharged into the water.

(ii) Flapper-type drain valves should not be used to drain diked areas. Valves used for the drainage of diked areas should, as far as practical, be of manual, open-and-closed design. When plant drainage drains directly into water courses and not into wastewater treatment plants, retained storm water should be inspected as provided in paragraphs (e)(2)(iii) (B), (C) and (D) of this section before drainage.

(iii) Plant drainage systems from undiked areas should, if possible, flow into ponds, lagoons or catchment basins, designed to retain oil or return it to the facility. Catchment basins should not be located in areas subject to periodic flooding.

(iv) If plant drainage is not engineered as above, the final discharge of all in-plant ditches should be equipped with a diversion system that could, in the event of an uncontrolled spill, return the oil to the plant.

(v) Where drainage waters are treated in more than one treatment unit, natural hydraulic flow should be used. If pump transfer is needed, two "lift" pumps should be provided, and at least one of the pumps should be permanently installed when such treatment is continuous. In any event, whatever techniques are used facility drainage systems should be adequately engineered to prevent oil from reaching navigable waters in the event of equipment failure or human error at the facility.

(2) *Bulk storage tanks (onshore); (excluding production facilities).* (i) No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature, etc.

(ii) All bulk storage tank installations should be constructed so that a secondary means of containment is provided for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spilled oil. Dikes, containment curbs, and pits are commonly employed for this purpose, but they may not always be appropriate. An alternative system could consist of a complete drainage trench enclosure arranged so that a spill could terminate and be safely confined in an inplant catchment basin or holding pond.

(iii) Drainage of rainwater from the diked area into a storm drain or an effluent discharge that empties into an open water course, lake, or pond, and bypassing the in-plant treatment system may be acceptable if:

(A) The bypass valve is normally sealed closed.

(B) Inspection of the run-off rain water ensures compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR part 110.

(C) The bypass valve is opened, and resealed following drainage under responsible supervision.

(D) Adequate records are kept of such events.

(iv) Buried metallic storage tanks represent a potential for undetected spills. A new buried installation should be protected from corrosion by coatings, cathodic protection or other effective methods compatible with local soil conditions. Such buried tanks should at least be subjected to regular pressure testing.

(v) Partially buried metallic tanks for the storage of oil should be avoided, unless the buried section of the shell is adequately coated, since partial burial in damp earth can cause rapid corrosion of metallic surfaces, especially at the earth/air interface.

(vi) Aboveground tanks should be subject to periodic integrity testing, taking into account tank design (floating roof, etc.) and using such techniques as hydrostatic testing, visual inspection or a system of non-destructive shell thickness testing. Comparison records should be kept where appropriate, and tank supports and foundations should be included in these inspections. In addition, the outside of the tank should frequently be observed by operating personnel for signs of deterioration, leaks which might cause a spill, or accumulation of oil inside diked areas.

(vii) To control leakage through defective internal heating coils, the following factors should be considered and applied, as appropriate.

(A) The steam return or exhaust lines from internal heating coils which discharge into an open water course should be monitored for contamination, or passed through a settling tank, skimmer, or other separation or retention system.

(B) The feasibility of installing an external heating system should also be considered.

(viii) New and old tank installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to avoid spills. Consideration should be given to providing one or more of the following devices:

(A) High liquid level alarms with an audible or visual signal at a constantly manned operation or surveillance station; in smaller plants an audible air

vent may suffice.

(B) Considering size and complexity of the facility, high liquid level pump cutoff devices set to stop flow at a predetermined tank content level.

(C) Direct audible or code signal communication between the tank gauger and the pumping station.

(D) A fast response system for determining the liquid level of each bulk storage tank such as digital computers, telepulse, or direct vision gauges or their equivalent.

(E) Liquid level sensing devices should be regularly tested to insure proper operation.

(ix) Plant effluents which are discharged into navigable waters should have disposal facilities observed frequently enough to detect possible system upsets that could cause an oil spill event.

(x) Visible oil leaks which result in a loss of oil from tank seams, gaskets, rivets and bolts sufficiently large to cause the accumulation of oil in diked areas should be promptly corrected.

(xi) Mobile or portable oil storage tanks (onshore) should be positioned or located so as to prevent spilled oil from reaching navigable waters. A secondary means of containment, such as dikes or catchment basins, should be furnished for the largest single compartment or tank. These facilities should be located where they will not be subject to periodic flooding or washout.

(3) *Facility transfer operations, pumping, and in-plant process (onshore); (excluding production facilities).* (i) Buried piping installations should have a protective wrapping and coating and should be cathodically protected if soil conditions warrant. If a section of buried line is exposed for any reason, it should be carefully examined for deterioration. If corrosion damage is found, additional examination and corrective action should be taken as indicated by the magnitude of the damage. An alternative would be the more frequent use of exposed pipe corridors or galleries.

(ii) When a pipeline is not in service, or in standby service for an extended time the terminal connection at the transfer point should be capped or blank-flanged, and marked as to origin.

(iii) Pipe supports should be properly designed to minimize abrasion and corrosion and allow for expansion and contraction.

(iv) All aboveground valves and pipelines should be subjected to regular examinations by operating personnel at which time the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces should be assessed. In addition, periodic pressure testing may be warranted for piping in areas where facility drainage is such that a failure might lead to a spill

event.

(v) Vehicular traffic granted entry into the facility should be warned verbally or by appropriate signs to be sure that the vehicle, because of its size, will not endanger above ground piping.

(4) *Facility tank car and tank truck loading/unloading rack (onshore).* (i) Tank car and tank truck loading/unloading procedures should meet the minimum requirements and regulation established by the Department of Transportation.

(ii) Where rack area drainage does not flow into a catchment basin or treatment facility designed to handle spills, a quick drainage system should be used for tank truck loading and unloading areas. The containment system should be designed to hold at least maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded in the plant.

(iii) An interlocked warning light or physical barrier system, or warning signs, should be provided in loading/unloading areas to prevent vehicular departure before complete disconnect of flexible or fixed transfer lines.

(iv) Prior to filling and departure of any tank car or tank truck, the lowermost drain and all outlets of such vehicles should be closely examined for leakage, and if necessary, tightened, adjusted, or replaced to prevent liquid leakage while in transit.

(5) *Oil production facilities (onshore)*—(i) *Definition.* An onshore production facility may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) *Oil production facility (onshore) drainage.* (A) At tank batteries and central treating stations where an accidental discharge of oil would have a reasonable possibility of reaching navigable waters, the dikes or equivalent required under § 112.7(c)(1) should have drains closed and sealed at all times except when rainwater is being drained. Prior to drainage, the diked area should be inspected as provided in paragraphs (e)(2)(iii) (B), (C), and (D) of this section. Accumulated oil on the rainwater should be picked up and returned to storage or disposed of in accordance with approved methods.

(B) Field drainage ditches, road ditches, and oil traps, sumps or skimmers, if such exist, should be inspected at regularly scheduled intervals for accumulation of oil that may have escaped from small leaks. Any such accumulations should be removed.

(iii) *Oil production facility (onshore) bulk storage tanks.* (A) No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(B) All tank battery and central treating plant installations should be provided with a secondary means of containment for the entire contents of the largest single tank if feasible, or alternate systems such as those outlined in § 112.7(c)(1). Drainage from undiked areas should be safely confined in a catchment basin or holding pond.

(C) All tanks containing oil should be visually examined by a competent person for condition and need for maintenance on a scheduled periodic basis. Such examination should include the foundation and supports of tanks that are above the surface of the ground.

(D) New and old tank battery installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to prevent spills. Consideration should be given to one or more of the following:

(1) Adequate tank capacity to assure that a tank will not overfill should a pumper/gauger be delayed in making his regular rounds.

(2) Overflow equalizing lines between tanks so that a full tank can overflow to an adjacent tank.

(3) Adequate vacuum protection to prevent tank collapse during a pipeline run.

(4) High level sensors to generate and transmit an alarm signal to the computer where facilities are a part of a computer production control system.

(iv) *Facility transfer operations, oil production facility (onshore).* (A) All above ground valves and pipelines should be examined periodically on a scheduled basis for general condition of items such as flange joints, valve glands and bodies, drip pans, pipeline supports, pumping well polish rod stuffing boxes, bleeder and gauge valves.

(B) Salt water (oil field brine) disposal facilities should be examined often, particularly following a sudden change in atmospheric temperature to detect possible system upsets that could cause an oil discharge.

(C) Production facilities should have a program of flowline maintenance to prevent spills from this source. The program should include periodic examinations, corrosion protection, flowline replacement, and adequate records, as appropriate, for the individual facility.

(6) *Oil drilling and workover facilities (onshore).* (i) Mobile drilling or workover equipment should be positioned or located so as to prevent spilled oil from reaching navigable waters.

(ii) Depending on the location, catchment basins or diversion structures may be necessary to intercept and contain spills of fuel, crude oil, or oily drilling fluids.

(iii) Before drilling below any casing string or during workover operations,

a blowout prevention (BOP) assembly and well control system should be installed that is capable of controlling any well head pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(7) *Oil drilling, production, or workover facilities (offshore).* (i) Definition: "An oil drilling, production or workover facility (offshore)" may include all drilling or workover equipment, wells, flowlines, gathering lines, platforms, and auxiliary nontransportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) Oil drainage collection equipment should be used to prevent and control small oil spillage around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and allied equipment. Drains on the facility should be controlled and directed toward a central collection sump or equivalent collection system sufficient to prevent discharges of oil into the navigable waters of the United States. Where drains and sumps are not practicable oil contained in collection equipment should be removed as often as necessary to prevent overflow.

(iii) For facilities employing a sump system, sump and drains should be adequately sized and a spare pump or equivalent method should be available to remove liquid from the sump and assure that oil does not escape. A regular scheduled preventive maintenance inspection and testing program should be employed to assure reliable operation of the liquid removal system and pump start-up device. Redundant automatic sump pumps and control devices may be required on some installations.

(iv) In areas where separators and treaters are equipped with dump valves whose predominant mode of failure is in the closed position and pollution risk is high, the facility should be specially equipped to prevent the escape of oil. This could be accomplished by extending the flare line to a diked area if the separator is near shore, equipping it with a high liquid level sensor that will automatically shut-in wells producing to the separator, parallel redundant dump valves, or other feasible alternatives to prevent oil discharges.

(v) Atmospheric storage or surge tanks should be equipped with high liquid level sensing devices or other acceptable alternatives to prevent oil discharges.

(vi) Pressure tanks should be equipped with high and low pressure sensing devices to activate an alarm and/or control the flow or other acceptable alternatives to prevent oil discharges.

(vii) Tanks should be equipped with

suitable corrosion protection.

(viii) A written procedure for inspecting and testing pollution prevention equipment and systems should be prepared and maintained at the facility. Such procedures should be included as part of the SPCC Plan.

(ix) Testing and inspection of the pollution prevention equipment and systems at the facility should be conducted by the owner or operator on a scheduled periodic basis commensurate with the complexity, conditions and circumstances of the facility or other appropriate regulations.

(x) Surface and subsurface well shut-in valves and devices in use at the facility should be sufficiently described to determine method of activation or control, e.g., pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms. Detailed records for each well, while not necessarily part of the plan should be kept by the owner or operator.

(xi) Before drilling below any casing string, and during workover operations a blowout preventer (BOP) assembly and well control system should be installed that is capable of controlling any well-head pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(xii) Extraordinary well control measures should be provided should emergency conditions, including fire, loss of control and other abnormal conditions, occur. The degree of control system redundancy should vary with hazard exposure and probable consequences of failure. It is recommended that surface shut-in systems have redundant or "fail close" valving. Subsurface safety valves may not be needed in producing wells that will not flow but should be installed as required by applicable State regulations.

(xiii) In order that there will be no misunderstanding of joint and separate duties and obligations to perform work in a safe and pollution free manner, written instructions should be prepared by the owner or operator for contractors and subcontractors to follow whenever contract activities include servicing a well or systems appurtenant to a well or pressure vessel. Such instructions and procedures should be maintained at the offshore production facility. Under certain circumstances and conditions such contractor activities may require the presence at the facility of an authorized representative of the owner or operator who would intervene when necessary to prevent a spill event.

(xiv) All manifolds (headers) should be equipped with check valves on individual flowlines.

(xv) If the shut-in well pressure is greater than the working pressure of

the flowline and manifold valves up to and including the header valves associated with that individual flowline, the flowline should be equipped with a high pressure sensing device and shut-in valve at the wellhead unless provided with a pressure relief system to prevent over pressuring.

(xvi) All pipelines appurtenant to the facility should be protected from corrosion. Methods used, such as protective coatings or cathodic protection, should be discussed.

(xvii) Sub-marine pipelines appurtenant to the facility should be adequately protected against environmental stresses and other activities such as fishing operations.

(xviii) Sub-marine pipelines appurtenant to the facility should be in good operating condition at all times and inspected on a scheduled periodic basis for failures. Such inspections should be documented and maintained at the facility.

(8) *Inspections and records.* Inspections required by this part should be in accordance with written procedures developed for the facility by the owner or operator. These written procedures and a record of the inspections, signed by the appropriate supervisor or inspector, should be made part of the SPCC Plan and maintained for a period of three years.

(9) *Security (excluding oil production facilities).* (i) All plants handling, processing, and storing oil should be fully fenced, and entrance gates should be locked and/or guarded when the plant is not in production or is unattended.

(ii) The master flow and drain valves and any other valves that will permit direct outward flow of the tank's content to the surface should be securely locked in the closed position when in non-operating or non-standby status.

(iii) The starter control on all oil pumps should be locked in the "off" position or located at a site accessible only to authorized personnel when the pumps are in a non-operating or non-standby status.

(iv) The loading/unloading connections of oil pipelines should be securely capped or blank-flanged when not in service or standby service for an extended time. This security practice should also apply to pipelines that are emptied of liquid content either by draining or by inert gas pressure.

(v) Facility lighting should be commensurate with the type and location of the facility. Consideration should be given to: (A) Discovery of spills occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (the general public, local police, etc.) and (B) prevention of spills occurring through acts of vandalism.

(10) *Personnel, training and spill prevention procedures.* (i) Owners or operators are responsible for properly instructing their personnel in the op-

eration and maintenance of equipment to prevent the discharges of oil and applicable pollution control laws, rules and regulations.

(ii) Each applicable facility should have a designated person who is accountable for oil spill prevention and who reports to line management.

(iii) Owners or operators should schedule and conduct spill prevention briefings for their operating personnel at intervals frequent enough to assure adequate understanding of the SPCC Plan for that facility. Such briefings should highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures.

APPENDIX—MEMORANDUM OF UNDERSTANDING BETWEEN THE SECRETARY OF TRANSPORTATION AND THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

SECTION II—DEFINITIONS

The Environmental Protection Agency and the Department of Transportation agree that for the purposes of Executive Order 11548, the term:

(1) "Non-transportation-related onshore and offshore facilities" means:

(A) Fixed onshore and offshore oil well drilling facilities including all equipment and appurtenances related thereto used in drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(B) Mobile onshore and offshore oil well drilling platforms, barges, trucks, or other mobile facilities including all equipment and appurtenances related thereto when such mobile facilities are fixed in position for the purpose of drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(C) Fixed onshore and offshore oil production structures, platforms, derricks, and rigs including all equipment and appurtenances related thereto, as well as completed wells and the wellhead separators, oil separators, and storage facilities used in the production of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(D) Mobile onshore and offshore oil production facilities including all equipment and appurtenances related thereto as well as completed wells and wellhead equipment, piping from wellheads to oil separators, oil separators, and storage facilities used in the production of oil when such mobile facilities are fixed in position for the purpose of oil production operations, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(E) Oil refining facilities including all equipment and appurtenances related thereto as well as in-plant processing units, storage units, piping, drainage systems and waste treatment units used in the refining of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to

or from a vessel.

(F) Oil storage facilities including all equipment and appurtenances related thereto as well as fixed bulk plant storage, terminal oil storage facilities, consumer storage, pumps and drainage systems used in the storage of oil, but excluding inline or break-out storage tanks needed for the continuous operation of a pipeline system and any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(G) Industrial, commercial, agricultural or public facilities which use and store oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(H) Waste treatment facilities including in-plant pipelines, effluent discharge lines, and storage tanks, but excluding waste treatment facilities located on vessels and terminal storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels and associated systems used for off-loading vessels.

(I) Loading racks, transfer hoses, loading arms and other equipment which are appurtenant to a nontransportation-related facility or terminal facility and which are used to transfer oil in bulk to or from highway vehicles or railroad cars.

(J) Highway vehicles and railroad cars which are used for the transport of oil exclusively within the confines of a nontransportation-related facility and which are not intended to transport oil in interstate or intrastate commerce.

(K) Pipeline systems which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce, but excluding pipeline systems used to transfer oil in bulk to or from a vessel.

..(2) "Transportation-related onshore and offshore facilities" means:

(A) Onshore and offshore terminal facilities including transfer hoses, loading arms and other equipment and appurtenances used for the purpose of handling or transferring oil in bulk to or from a vessel as well as storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels, but excluding terminal waste treatment facilities and terminal oil storage facilities.

(B) Transfer hoses, loading arms and other equipment appurtenant to a nontransportation-related facility which is used to transfer oil in bulk to or from a vessel.

(C) Interstate and intrastate onshore and offshore pipeline systems including pumps and appurtenances related thereto as well as in-line or breakout storage tanks needed for the continuous operation of a pipeline system, and pipelines from onshore and offshore oil production facilities, but excluding onshore and offshore piping from wellheads to oil separators and pipelines which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce or to transfer oil in bulk to or from a vessel.

(D) Highway vehicles and railroad cars which are used for the transport of oil in interstate or intrastate commerce and the equipment and appurtenances related thereto, and equipment used for the fueling of locomotive units, as well as the rights-of-way on which they operate. Excluded are high-

way vehicles and railroad cars and motive power used exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended for use in interstate or intrastate commerce.

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APPENDIX F

33 CFR PART 153.201

Subpart B—Notice of the Discharge of Oil or a Hazardous Substance

§ 153.201 Purpose.

The purpose of this subpart is to prescribe the manner in which the notice required in section 311(b)(5) of the Act is to be given and to list the government officials to receive that notice.

§ 153.203 Procedure for the notice of discharge.

Any person in charge of a vessel or of an onshore or offshore facility shall, as soon as they have knowledge of any discharge of oil or a hazardous substance from such vessel or facility in violation of section 311(b)(3) of the Act, immediately notify the National Response Center (NRC), U.S. Coast Guard, 2100 Second Street, SW., Washington, DC 20593, toll free telephone number 800-424-8802 (in Washington, DC metropolitan area, (202) 267-2675). If direct reporting to the NRC is not practicable, reports may be made to the Coast Guard or EPA pre-designated OSC for the geographic area where the discharge occurs. All such reports shall be promptly relayed to the NRC. If it is not possible to notify the NRC or the pre-designated OSC immediately, reports may be made immediately to the nearest Coast Guard unit, provided that the person in charge of the vessel or onshore or offshore facility notifies the NRC as soon as possible.

NOTE: Geographical jurisdiction of Coast Guard and EPA OSC's are specified in the applicable Regional Contingency Plan. Regional Contingency Plans are available at Coast Guard District Offices and EPA Regional Offices as indicated in Table 2. Addresses and telephone numbers for these offices are listed in Table 1.

[CGD 84-067, 51 FR 17966, May 16, 1986, as amended by CGD 88-052, 53 FR 25121, July 1, 1988]

§ 153.205 Fines.

Section 311(b)(5) of the Act prescribes that any person who fails to notify the appropriate agency of the United States Government immediately of a discharge is, upon conviction, subject to a fine of not more than \$10,000, or to imprisonment of not more than one year, or both.

TABLE 1—ADDRESSES AND TELEPHONE NUMBERS OF COAST GUARD DISTRICT OFFICES AND EPA REGIONAL OFFICES

	Address	Telephone
EPA Regional Offices		
Region:		
I.....	John F. Kennedy Federal Bldg., Boston, MA 02203.	617-565-3715
II.....	26 Federal Plaza, New York, NY 10278.	212-264-2525
III.....	841 Chestnut Street, Philadelphia, PA 19107.	215-597-9800
IV.....	345 Courtland Street, NE, Atlanta, GA 30365.	404-347-4727
V.....	230 S. Dearborn Street, 13th Floor, Chicago, IL 60604.	312-353-2000
VI.....	1445 Ross Ave., 12th Floor, Suite 1200, Dallas, TX 75202.	214-655-6444
VII.....	726 Minnesota Avenue, Kansas City, KS 66101.	913-236-2800
VIII.....	999 18th St., Suite 500, Denver, CO 80202-2405.	303-293-1803
IX.....	215 Fremont Street, San Francisco, CA 94105.	415-974-8071
X.....	1200 6th Avenue, Seattle, WA 98101.	206-442-5810
Coast Guard District Offices		
District:		
1st.....	408 Atlantic Ave., Boston, MA 02110-2209.	617-223-8444
2nd.....	1430 Olive St., St. Louis, MO 63103.	314-425-4655
5th.....	Federal Bldg., 431 Crawford St., Portsmouth, VA 23705-5004.	804-398-6638
7th.....	Federal Bldg., Room 1221, 51 S.W. 1st Ave., Miami, FL 33130.	305-536-5651
8th.....	Hele Boggs Federal Bldg., 500 Camp St., New Orleans, LA 70130-3396.	504-589-6801
9th.....	1240 East 9th St., Cleveland, OH 44199.	216-522-3919
11th.....	Union Bank Bldg., 400 Oceangate, Long Beach, CA 90822-5399.	213-499-5330
13th.....	Federal Bldg., 915 Second Ave., Seattle, WA 98174.	206-442-5850
14th.....	Prince Kalamansole Federal Bldg., 300 Ala Moana Blvd., 9th Floor, Honolulu, HI 96850.	808-541-2114
17th.....	P.O. Box 3-5000, Juneau, AK 99802.	907-586-7195

TABLE 2—STANDARD ADMINISTRATIVE REGIONS OF STATES AND CORRESPONDING COAST GUARD DISTRICTS AND EPA REGIONS

States and EPA region	Coast Guard district
Region I:	
Maine.....	1st
New Hampshire.....	1st
Vermont.....	
All except Northwestern portion.....	1st
Northwestern portion.....	1st
Massachusetts.....	1st
Connecticut.....	1st
Rhode Island.....	1st
Region II:	
New York:	
Coastal area and Eastern portion.....	1st
Great Lakes area and other portions.....	5th
New Jersey:	
Upper portion.....	1st
Lower portion.....	5th

Environmental Protection Agency

TABLE 2—STANDARD ADMINISTRATIVE REGIONS OF STATES AND CORRESPONDING COAST GUARD DISTRICTS AND EPA REGIONS—Continued

States and EPA region	Coast Guard district
Puerto Rico.....	7th
Virgin Islands.....	7th
Region III:	
Pennsylvania:	
Eastern portion.....	5th
Great Lakes area.....	9th
Southwestern portion.....	2nd
Maryland.....	5th
Delaware.....	5th
West Virginia.....	2nd
Virginia.....	5th
District of Columbia.....	5th
Region IV:	
Kentucky.....	2nd
Tennessee.....	2nd
North Carolina.....	5th
South Carolina.....	7th
Georgia.....	7th
Florida:	
Atlantic and Gulf coasts.....	7th
Panhandle area.....	8th
Alabama:	
Southern.....	8th
Northern.....	2nd
Mississippi:	
Southern.....	8th
Northern.....	2nd
Region V:	
Minnesota:	
Great Lakes area.....	9th
Inland rivers area.....	2nd
Wisconsin:	
Great Lakes area.....	9th
Inland rivers area.....	2nd
Michigan.....	9th
Illinois:	
Great Lakes area.....	9th
Inland rivers area.....	2nd
Indiana:	
Great Lakes area.....	9th
Inland rivers area.....	2nd
Ohio:	
Great Lakes area.....	9th
Inland rivers area.....	2nd
Region VI:	
New Mexico.....	8th
Texas.....	8th
Oklahoma.....	2nd
Arkansas.....	2nd
Louisiana.....	8th
Region VII:	
Nebraska.....	2nd
Iowa.....	2nd
Kansas.....	2nd
Missouri.....	2nd
Region VIII:	
Montana.....	13th
Wyoming.....	2nd
Utah.....	11th
Colorado.....	2nd
North Dakota.....	2nd
South Dakota.....	2nd
Region IX:	
California.....	11th
Nevada.....	11th
Arizona.....	11th
Hawaii.....	14th
Guam.....	14th
American Samoa.....	14th
Trust Territory of the Pacific Islands.....	14th
Northern Mariana Islands.....	14th
Region X:	
Washington.....	13th
Oregon.....	13th
Idaho.....	13th
Alaska.....	17th

[CGD 84-067, 51 FR 17967, May 16, 1986, as amended by CGD 88-052, 53 FR 25121, July 1, 1988]

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Federal Register

Tuesday
October 22, 1991

Part II

Environmental Protection Agency

40 CFR Part 112

Oil Pollution Prevention; Non-
transportation-related Onshore and
Offshore Facilities; Proposed Rules



Printed on Recycled Paper

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 112

[SW H-FRL-3671-4]

RIN 2050-AC62

Oil Pollution Prevention; Non-transportation-related Onshore and Offshore Facilities

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The U.S. Environmental Protection Agency is proposing to revise the Oil Pollution Prevention regulation (40 CFR part 112) promulgated under section 311(j)(1)(C) of the Clean Water Act (CWA), as amended by the Oil Pollution Act of 1990. This proposed rule establishes requirements for Spill Prevention, Control, and Countermeasures (SPCC). Plans to prevent spills of oil by non-transportation-related onshore and offshore facilities into the waters of the United States or adjoining shorelines. The proposed revision involves changes in the applicability of the regulation and the required procedures for the completion of SPCC Plans, as well as the addition of a facility notification provision. The proposed rule also reflects changes in the jurisdiction of section 311 of the CWA made by 1977 and 1978 amendments to the CWA.

DATES: EPA will consider comments submitted on or before December 23, 1991.

ADDRESSES:

Comments: Comments should be submitted in triplicate to: Emergency Response Division, Attention: Superfund Docket Clerk, Docket Number SPCC-1P, Superfund Docket, room M2427, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460.

Docket: Copies of materials relevant to this rulemaking are contained in the Superfund Docket, room M2427 at the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 [Docket Number SPCC-1P]. The docket is available for inspection between the hours of 9 a.m. and 4 p.m., Monday through Friday, excluding Federal holidays. Appointments to review the docket should be made by calling 1-202/260-3046. The public may copy a maximum of 267 pages from any regulatory docket at no cost. If the number of pages copied exceeds 267, however, a charge of 15 cents will be incurred for each page after 100 pages.

FOR FURTHER INFORMATION CONTACT: Monica L. McEaddy, Response

Standards and Criteria Branch, Emergency Response Division (OS-210), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 at 1-202-260-1358 or Bobbie Lively-Diebold at 1-703-356-8774; the ERNS/SPCC Information line at 1-202-260-2342; or RCRA/Superfund Hotline at 1-800-424-9346 (in the Washington, DC metropolitan area, 1-703-920-9810). The Telecommunications Device for the Deaf (TDD) Hotline number is 1-800-553-7672 (in the Washington, DC metropolitan area, 1-703-486-3323).

SUPPLEMENTARY INFORMATION: The contents of today's preamble are listed in the following outline:

- I. Introduction
 - A. Statutory Authority
 - B. Background of this Rulemaking
 - C. The Oil Pollution Act of 1990 (OPA)
- II. General Issues
 - A. Notification
 - B. Contingency Planning
 - C. New Discretionary Provisions
- III. Proposed Changes in Each Section of 40 CFR Part 112
 - A. Section 112.1—General Applicability and Notification
 - B. Section 112.2—Definitions
 - C. Section 112.3—Requirements to Prepare and Implement a Spill Prevention, Control, and Countermeasures Plan
 - D. Section 112.4—Amendment of SPCC Plans by Regional Administrator
 - E. Section 112.5—Amendment of SPCC Plans by Owners or Operators
 - F. Section 112.6—Civil Penalties for Violation of the Oil Pollution Prevention Regulation
 - G. Section 112.7—Spill Prevention, Control, and Countermeasures Plan General Requirements
 - H. Section 112.8—Spill Prevention, Control, and Countermeasures Plan Requirements for Onshore Facilities (Excluding Production Facilities)
 - I. Section 112.9—Spill Prevention, Control, and Countermeasures Plan Requirements for Onshore Oil Production Facilities
 - J. Section 112.10—Spill Prevention, Control, and Countermeasures Plan Requirements for Onshore Oil Drilling and Workover Facilities
 - K. Section 112.11—Spill Prevention, Control, and Countermeasures Plan Requirements for Offshore Oil Drilling, Production, or Workover Facilities
- IV. Relationship to Other Programs
 - A. Underground Storage Tanks
 - B. State Programs
 - C. Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III Integration With Local Emergency Planning
 - D. Wellhead Protection
 - E. Flood-Related Requirements
 - F. Occupational Safety and Health Administration
- V. Request for Comments
- VI. Regulatory Analyses
 - A. Economic Analyses

- B. Executive Order No. 12291
 - C. Regulatory Flexibility Act
 - D. Paperwork Reduction Act
- List of Subjects

I. Introduction

A. Statutory Authority

Section 311(j)(1)(C) of the Federal Water Pollution Control Act, 33 U.S.C. 1251 *et seq.*, also known as the Clean Water Act (CWA), authorizes the President to issue regulations establishing procedures, methods, equipment, and other requirements to prevent discharges of oil from vessels and facilities and to contain such discharges. The authority to regulate non-transportation-related onshore and offshore facilities under section 311(j)(1)(C) of the CWA was delegated by the President to the Administrator of the U.S. Environmental Protection Agency (EPA or the Agency) by Executive Order 11735. In this same Executive Order, authority over onshore and offshore transportation-related facilities and vessels was delegated to the department in which the U.S. Coast Guard (USCG) is operating (currently, the U.S. Department of Transportation). A Memorandum of Understanding (MOU) between the Secretary of Transportation and the EPA Administrator, dated November 24, 1971 (36 FR 24080), establishes the responsibilities of EPA and the Department of Transportation for purposes of administering their respective spill prevention programs. The definitions set forth in this MOU (i.e., the definitions of "non-transportation-related onshore and offshore facilities" and "transportation-related onshore and offshore facilities") are included as an appendix to 40 CFR part 112.

B. Background of This Rulemaking

The Oil Pollution Prevention regulation, also known as the Spill Prevention, Control, and Countermeasures (SPCC) regulation, was originally promulgated on December 11, 1973 (38 FR 34164), under the authority of section 311(j)(1)(C) of the CWA. The regulation established spill prevention procedures, methods, and equipment requirements for non-transportation-related facilities with aboveground (non-buried) oil storage capacity greater than 1,320 gallons (or greater than 660 gallons aboveground in a single tank) or buried underground oil storage capacity greater than 42,000 gallons. Regulated facilities were also limited to those that, because of their location, could reasonably be expected to discharge oil into the navigable

waters of the United States or adjoining shorelines.

In addition to the Oil Pollution Prevention regulation, EPA has promulgated related regulations defining oil discharges that may be harmful (40 CFR part 110) and procedures for imposing the civil penalties provided for in the Oil Pollution Prevention regulation (40 CFR part 114). As described below, penalty provisions have been revised by the Oil Pollution Act of 1990 (OPA). The USCG has promulgated regulations on oil pollution prevention for vessel transfer facilities (the USCG regulations do not apply to pipelines or other modes of transportation) (33 CFR part 154), pursuant to the November 24, 1971, MOU described above. The USCG also has promulgated requirements for the reporting of oil discharges (33 CFR part 153), and regulations relating to discharges from ships (33 CFR part 155).

Two previous revisions have been made to the Oil Pollution Prevention regulation. On August 29, 1974, the regulation was amended (39 FR 31602) to set out the Agency's policy on civil penalties for violation of the CWA section 311 requirements. On March 26, 1976, 40 CFR part 112 was again amended (41 FR 12567), primarily to clarify the criteria for determining whether or not a facility is subject to the regulation. Other revisions made in the March 26, 1976, rule clarified that SPCC Plans must be in written form and specified the procedures for development of SPCC Plans for mobile facilities.

Implementation of the regulation since the 1976 revisions has indicated a need for other changes, primarily for purposes of clarification and simplification. Changes in 40 CFR part 112 also have been made necessary by amendments to CWA section 311.

On May 20, 1980 (45 FR 33814), EPA proposed revisions to the Oil Pollution Prevention regulation similar to revisions proposed today. These proposed revisions would have reflected changes in the jurisdiction of CWA section 311 made by the 1977 CWA amendments. Also proposed were requirements concerning new facilities, the content of SPCC Plans, the availability of SPCC Plans for review by EPA personnel, and the review of SPCC Plans by owners or operators.

One of the revisions proposed on May 20, 1980, was a clarification that certain "guidelines" in § 112.7 are mandatory rather than discretionary. Based on a subsequent decision by the Agency that the proposed modifications to 40 CFR part 112 were not required at that time, the revisions proposed on May 20, 1980,

were not finalized. As described below, however, continuing experience with administering this program demonstrates a need for the clarifications to 40 CFR 112.7. Accordingly, the Agency is proposing certain changes to 40 CFR 112.7 that are similar to those proposed on May 20, 1980.

On January 2, 1988, the collapse of a four-million-gallon aboveground storage tank owned by the Ashland Oil Company in Floreffe, Pennsylvania, resulted in a spill of approximately 3.8 million gallons of diesel fuel. Of this amount, approximately 750,000 gallons of diesel fuel were released into the Monongahela River. This event led to the formation of an Oil Spill Prevention, Control, and Countermeasures Program Task Force (the SPCC Task Force) to examine Federal government regulations governing spills of oil from aboveground storage tanks. The SPCC Task Force was composed of senior personnel from EPA Headquarters, Regional offices, other Federal agencies, and State offices with significant oil spill response responsibilities. The Task Force issued its findings and recommendations in a May 13, 1988, report.¹ The Task Force report focused on the prevention of large catastrophic spills, but made recommendations on many aspects of the Federal oil spill prevention, control, and countermeasures program.

The SPCC Task Force recommended that EPA clarify that certain provisions described in the Oil Pollution Prevention regulation in terms that could be interpreted as guidelines are required practices. The Task Force also recommended that EPA establish additional technical requirements for all facilities subject to the regulation, and that EPA expand the scope of the regulation to include requirements for facility-specific oil spill contingency planning. The Task Force further found that EPA does not have an adequate inventory of facilities subject to the regulation and recommended that EPA gather specific information about these facilities (e.g., the number of aboveground storage tanks at a facility). The Task Force also recommended strengthening the facility inspection program to better identify violations and enforce compliance. A subsequent General Accounting Office (GAO) report contained similar recommendations.²

¹ U.S. Environmental Protection Agency, "The Oil Spill Prevention, Control, and Countermeasures Program Task Force Report," Interim Final Report, May 13, 1988. This document is available for inspection at the Superfund Docket, room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

² General Accounting Office, "Inland Oil Spills: Stronger Regulation and Enforcement Needed to

As a result of major oil spills such as the Ashland Oil Company spill discussed previously and the findings from the SPCC Task Force and the GAO reports, EPA is today proposing revisions to 40 CFR part 112.

EPA has decided to address the SPCC Task Force findings and recommendations, together with OPA requirements, in two phases. A two-phase approach has been chosen because several of the Task Force recommendations require further information gathering and analysis before determining specific additional changes to the existing regulation, whereas other recommendations can be implemented more readily. Phase One revisions, which include provisions that generally do not require substantial additional Agency data gathering (e.g., technical amendments to clarify regulatory language, notification requirements), are being proposed today. Phase Two revisions, which will be addressed in a separate rulemaking and proposed at a later date, will address other, more substantive regulatory recommendations, such as facility-specific contingency planning and aboveground storage tank integrity testing requirements. Phase Two will also implement applicable requirements of the OPA. For further discussion of the Phase Two revisions as they relate to the OPA, see Section I.C. of this preamble.

After consideration of comments received in response to this proposed rule, a final rule will be promulgated. In addition to a general request for comments, the Agency requests comments on specific proposed revisions throughout the preamble. The provisions are also summarized in Section V of this preamble. If the comments received indicate sufficient need, the Agency will consider holding a public hearing on the proposed revisions to permit further expression of views prior to the final rulemaking. EPA will publish a notice of its intent to hold any such public hearing in the *Federal Register*. Any statements made at such a hearing would be included in the public record of the rulemaking.

C. The Oil Pollution Act of 1990 (OPA)

The OPA was signed into law by the President on August 18, 1990. The OPA contains significant modifications to many of the provisions of section 311 of the CWA, including section 311(j). The

Avoid Future Incidents." February 1989 (GAO/RCED-89-65). This document is available for inspection at the Superfund Docket, room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

specific language of section 311(j)(1)(C), however, is not changed. The principal provisions of the OPA that will impact the SPCC program are summarized below.

Section 1004 of the OPA sets a number of limits on liability of owners or operators of vessels and facilities for oil spills to U.S. waters. The liability limits include \$350 million for onshore facilities and deepwater ports; \$75 million plus removal costs for offshore facilities; and \$1,200 per gross ton or up to \$10 million, whichever is greater, for tank vessels. The President must report to the Congress on the desirability of adjusting these liability limits, and EPA is addressing this issue for onshore, non-transportation-related facilities. There is no liability limit when spills are caused by willful misconduct or gross negligence or by violation of Federal safety, construction, or operating regulations; or in cases of failure or refusal to report the discharge, failure to cooperate in oil removal actions, or comply with orders issued by the Federal agency in charge of cleanup.

Under OPA section 1002, the scope of damages for which oil dischargers may be liable is expanded to include damages for injury to, or loss of subsistence use of, natural resources; damages for injury to property; loss of revenues, profits, or earning capacity; and costs of public services during or after oil removal activities.

The OPA establishes that the Oil Spill Liability Trust Fund under section 9509 of the Internal Revenue Code of 1986 shall be used to pay for removal costs and damages not recovered from responsible parties. The existing fund under CWA section 311(k) and other oil spill compensation and liability funds are dissolved; the assets and liabilities of these funds are consolidated in the Oil Spill Liability Trust Fund.

Section 4113 of the OPA requires the President to conduct a study on whether liners or other secondary means of containment should be used to prevent or help detect leaks from onshore bulk oil storage facilities. EPA is currently undertaking such a study and will prepare a Report to Congress on the results.

Under OPA section 4201(a), Federal authority under the CWA for the removal of oil and hazardous substances defined under the CWA is expanded; for example, the Federal government is required to direct removal actions for discharges posing a substantial threat to the public health or welfare of the U.S. Also, new discretionary authority to direct the spiller's removal actions under other

circumstances has been added to existing authorities.

OPA section 4202 amends CWA section 311(j) to require the development of Area Contingency Plans to help ensure the removal of a worst-case spill from a vessel or facility in or near the area covered by the plan. The President must designate inland and coastal areas for which plans are to be prepared; and for each of these areas, an Area Committee must be established consisting of qualified Federal, State, and local officials. Each Area Committee in inland areas must prepare an Area Contingency Plan and submit it to the President. The President must then review each plan and either approve or require amendments to it.

Section 4202 of the OPA also amends CWA section 311(j) to require that the President issue regulations for owners or operators of certain facilities and vessels to prepare response plans for worst-case oil and hazardous substances discharges. Onshore facilities that can cause "substantial harm" in the event of a worst-case spill must submit their plans to the President. Of these plans, the President must review and issue determinations on plans for onshore facilities that can cause "significant and substantial harm."

Although the changes to the SPCC regulation proposed today do not directly incorporate requirements of the OPA, the notification requirement proposed today will assist in the implementation of many of these OPA requirements. This requirement will provide information on the number and location of facilities, as well as the size and number of tanks at each one. EPA expects that implementation of many of the OPA provisions related to non-transportation-related facilities will be delegated to EPA in a forthcoming Executive Order. As described in section II.A of this preamble, the facility data developed as a result of the notification requirement will assist EPA in its implementation of the response planning provisions of OPA section 4202 in Phase Two.

The SPCC Task Force concluded that aboveground storage tanks without secondary containment pose a particularly significant threat to the environment. The Phase One modifications would retain the existing requirement for facility owners or operators who are unable to provide certain structures or equipment for oil spill prevention, including secondary containment, to prepare facility-specific oil spill contingency plans in lieu of the prevention systems. In developing the Phase Two modifications, EPA will

consider whether facility owners or operators with aboveground storage tanks, as well as others, should be required to prepare facility-specific contingency plans. Phase Two modifications will also address the requirements of a properly designed contingency plan and, as described above, will implement additional OPA requirements for facility response (contingency) plans, as appropriate.

Section 4301 of the OPA increases penalties under the CWA for violations resulting from discharges of oil or hazardous substances. Section 4301(a) amends the CWA to provide more stringent penalties for failure to notify the appropriate Federal agency of a discharge. The OPA provides for imprisonment of up to five years and a fine not exceeding \$250,000 for an individual, or not more than \$500,000 for an organization. Section 4301(b) establishes the penalty for failure to comply with regulations under CWA section 311(j) at \$25,000 per day of violation. In addition to these civil penalties, section 4301(b) establishes administrative penalties of \$10,000 per violation, not to exceed \$25,000 for Class I penalties, and \$10,000 per day per violation, not to exceed \$125,000 for Class II penalties.

Section 4301(c) provides that violations of the prohibition on discharges of oil or hazardous substances in amounts that may be harmful are subject to criminal penalties established under section 309(c) of the CWA. These penalties are \$2,500 to \$25,000 and up to one year imprisonment for negligent violations, \$5,000 to \$50,000 and up to three years imprisonment for knowing violations, and up to \$250,000 (or \$1 million for organizations) and up to 15 years imprisonment for knowing endangerment.

II. General Issues

A. Notification

The SPCC Task Force found in its review of the SPCC program that information concerning the numbers, storage capacities, and locations of above ground oil storage facilities is needed to effectively administer the SPCC program. Therefore, EPA is proposing to require that all facilities that are currently subject to the Oil Pollution Prevention regulation by virtue of their aboveground oil storage capacity, or that are otherwise subject to the CWA and have above ground storage capacity greater than 1,320 gallons (or greater than 660 gallons in a single container), notify the Agency of certain SPCC-related facility

characteristics. Partially buried tanks and bunkered tanks, as defined in proposed § 112.2, are included in determining the capacity of aboveground storage, and facilities with such tanks are subject to the notification requirement. In addition, EPA is proposing that all facilities that become subject to this regulation in the future by virtue of their aboveground oil storage capacity must notify the Agency prior to beginning operations at the facility. Many facilities subject to the Oil Pollution Prevention regulation by virtue of their underground storage capacity are already subject to notification requirements under the Underground Storage Tank (UST) program (40 CFR part 280), and EPA is proposing to exempt many such UST-regulated facilities from the Oil Pollution Prevention regulation. The remaining SPCC-regulated facilities with only underground storage tanks, as defined in proposed § 112.2(v), would not be subject to the proposed notification requirement. The proposed notification provision in § 112.1(e) would require that facility owners and operators furnish their names; the name and address of the facility; the number and size of aboveground oil storage tanks at the facility; the facility's total aboveground oil storage capacity; the distance of the facility to the nearest navigable waters; the facility's Dun & Bradstreet D-U-N-S number, if available; and the facility's primary Standard Industrial Classification, if applicable and available. This information is to be supplied using a proposed standard form, which is included as appendix B of today's proposed regulation. In addition, the Agency is considering requiring information on the latitude and longitude of the facility, location of environmentally sensitive areas and potable water supplies, presence of secondary containment, spill history, leak detection equipment and alarms, age of tanks, and potential for adverse weather. This additional information would assist in implementing the facility response plan requirements that are mandated by the OPA. The facility response plan requirements will be proposed in the Phase Two rulemaking. Specifically, the information may be useful in determining which facilities could reasonably be expected to cause "substantial harm" or "significant and substantial harm" by discharging into the navigable waters, adjoining shorelines, or the exclusive economic zone and, therefore, must submit their facility response plan. EPA requests comments on collecting this additional information through the notification

form. EPA also requests comments on additional information that could be used in developing Area Plans or in implementing the community right-to-know program described in section IV.C of this preamble.

The Agency proposes that the owner or operator of the facility would complete and send the form to the SPCC program office at EPA Headquarters within two months of the effective date of the final rule. The proposed notification would be a one-time requirement; a facility would not be required to notify EPA of changes in owner(s), operator(s), or the other required information elements. Any owner or operator who fails to notify or knowingly submits false information in a notification would be subject to a civil penalty. The Agency specifically requests comment on the proposed notification requirement and the proposed notification form.

The Agency expects to use data collected under the proposed notification requirement to develop a data base of facility-specific information. This data base may also include information on spills (obtained from spill reports submitted by facilities or from the Emergency Response Notification System (ERNS)) and various other types of information. The Agency will use the information in the data base to more effectively allocate SPCC program resources by prioritizing inspections and enforcement efforts and by determining the need for additional prevention requirements for certain categories of facilities (such as facilities with the potential to threaten major drinking water supplies or sensitive ecosystems).

The Agency is particularly interested in comment on alternate methods of facility notification. In particular, EPA is aware that facilities may already be required to submit Material Safety Data Sheets (MSDSs) and other information to State Emergency Response Commissions (SERCs), Local Emergency Planning Committees (LEPCs), and local fire departments under sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III). Comments are solicited concerning ways that these data submissions may be used to establish an inventory of facilities subject to this proposed rule.

B. Contingency Planning

EPA believes that facility-specific contingency planning in coordination with local authorities is an important part of any spill related preparedness program. The SPCC Task Force

recommended that the Oil Pollution Prevention regulation be revised to require the inclusion of contingency plans in facility SPCC Plans, and that these plans be coordinated with existing State and local contingency planning groups.

EPA believes that, in general, a facility-specific contingency plan should contain provisions for discovery of a spill, emergency notification procedures, the name of the spill response coordinator, procedures for identifying personnel and equipment that may be needed, available equipment lists, available personnel lists, an identification of hazards, a vulnerability analysis, and an event and fault tree analysis.

The vulnerability analysis identifies areas of immediate concern following a spill event and provides an estimate of the area most likely to be affected. Examples of areas to be identified in the vulnerability analysis include, but are not limited to, population centers, wetlands, wellhead protection areas, and areas that may be inhabited by endangered species. In addition, the vulnerability analysis should identify sensitive ecosystems requiring special protection and drinking water suppliers who must be notified if a release occurs.

An event and fault tree analysis will identify potential spill scenarios. It is usually based on prior spills at the facility and can be used to estimate possible sources of leaks, spill sizes, pathways, and causes of spills at other facilities. Case studies of major spills show that close attention should be paid to the methods by which equipment and personnel may be obtained. Finally, the contingency plan should address disposal of recovered oil, used sorbents, and other materials. The Agency's experience at various spill sites also demonstrates the importance of addressing the location of off-site spill pathways in the contingency plan. Above all, a contingency plan needs to be workable and easy to follow in emergency situations. Facility personnel should be trained in the contingency plan procedures to improve their understanding of the plan and ensure that it is properly followed in emergencies.

The Agency is proposing in today's notice only to require elementary contingency planning steps that are currently included in most existing SPCC Plans, such as the inclusion in a facility's Plan of a list of contacts (e.g., the facility response coordinator, the National Response Center (NRC)). EPA is also proposing to clarify an existing requirement that facilities without

secondary containment or diversionary measures complete a site-specific contingency plan. Because as part of Phase Two EPA is currently considering requirements for more comprehensive facility-specific contingency plans in response to the recommendations of the Task Force and the requirements of the OPA, the Agency wishes to provide an opportunity for commenters to submit additional information and recommendations on contingency planning during the development of such requirements. Therefore, EPA is requesting comments and supporting data on oil spill contingency planning needs.

C. New Discretionary Provisions

In addition to proposing changes to clarify and strengthen the Oil Pollution Prevention regulation, EPA is proposing a number of provisions as recommendations. These new provisions are described individually in Section III of this preamble. Among the new recommendations are the following two provisions:

- *Proposed § 112.8(d)(4).* It is recommended that facilities have all buried piping³ tested for integrity and leaks annually or have buried piping monitored monthly in accordance with the provisions of 40 CFR part 280. In addition, it is recommended that records of the testing or monitoring be kept for five years (does not apply to offshore facilities or production facilities).

- *Proposed § 112.8(d)(5).* It is recommended that facilities post vehicle weight restrictions to prevent damage to underground piping (does not apply to offshore facilities or production facilities).

EPA is proposing these two provisions and other provisions as recommendations rather than requirements. The Agency is concerned that these provisions may not for all facilities achieve the standard of provisions based on good engineering practice, which is the basic standard of the regulation. EPA, however, believes that implementation of these provisions at most facilities would contribute to the facilities' overall effort to prevent oil discharge and to mitigate those spills that may occur. Consequently, EPA is proposing these discretionary provisions so that the owners and operators of facilities subject to the Oil Pollution Prevention Regulation can decide whether the suggested practices are

warranted under the existing regulatory requirements. At many facilities the proposed provisions are consistent with the general requirement that the SPCC Plan be prepared in accordance with good engineering practices. At the same time, the Agency recognizes that for some facilities implementation of these provisions is inappropriate for technological or other reasons or is not necessary because of other facility-specific practices or circumstances. For such facilities, not implementing these discretionary provisions would be consistent with the existing requirement concerning good engineering practices.

The Agency requests comments and supporting data (including information on likely environmental impacts or benefits) regarding whether these discretionary provisions should be made requirements. EPA is particularly interested in receiving comments and information on the advisability of establishing the two provisions as requirements for large facilities, but as recommendations for small facilities. This is consistent with the SPCC Task Force recommendation that EPA regulate larger facilities more stringently than smaller facilities. EPA considered defining a "large facility" for this specific purpose as a facility with more than 42,000 gallons of SPCC-regulated storage capacity. The Agency believes that larger volumes of oil stored at a facility increases the chances of a spill occurring, and that spills from large-capacity facilities may be greater in magnitude than those from smaller facilities, thus posing a greater potential threat to the waters of the United States. Section 311(j)(1)(C) of the CWA, however, does not explicitly authorize differential requirements based on facility size. EPA is also requesting comment on the option of applying these provisions as requirements to all sizes of SPCC-regulated facilities under § 311(j)(1)(i) of the CWA.

In addition, EPA is requesting comments on two other practices that are not included in the proposed revisions. These practices are:

- That owners and operators of facilities affix a signed and dated statement to the SPCC Plan indicating that the revision has taken place and whether or not amendment of the Plan is required.

- That owners and operators of onshore facilities other than production facilities state the design capabilities of their drainage system in the SPCC Plan if the system is relied upon to control spills or leaks.

EPA believes that these practices may improve the quality of a facility's SPCC

Plan and may be appropriate to include in the Oil Pollution Prevention regulation as discretionary practices. The Agency has not included these practices in the proposed rule because of the lack of data for the benefits likely to result from these practices. EPA specifically requests comments regarding the extent to which these provisions would further improve the effectiveness of the Oil Pollution Prevention regulation.

III. Proposed Changes in Each Section of 40 CFR Part 112

In this section, the principal changes and clarifications being proposed today to each of the sections of 40 CFR part 112 are discussed and explained. Minor grammatical and editorial changes also have been made to the text of the proposed rule. To more effectively organize § 112.7, it has been divided into five separate sections (proposed §§ 112.7, 112.8, 112.9, 112.10, and 112.11), based on facility type. This reorganization will aid in the clarification of SPCC Plan requirements for different types of facilities.

A. Section 112.1—General Applicability and Notification

The geographic scope of the applicability of the Oil Pollution Prevention regulation, which is stated in paragraphs (a), (b), and (d) of § 112.1, is proposed to be extended to conform with the 1977 CWA amendments that extended the geographic scope of EPA's authority under CWA section 311. CWA section 311(b)(1) as amended in 1977, establishes a national policy prohibiting discharges of oil or hazardous substances into or upon the navigable waters of the United States or adjoining shorelines, or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act). As a result, the applicability of the SPCC regulations as stated in paragraphs (a) and (b) of § 112.1 and in subsequent paragraphs of the rule is proposed to be revised to reflect the statutory language.

In light of amendments to the CWA in 1978, EPA is revising the phrase "harmful quantities" in § 112.1(b). The revised phrase—"quantities that may be harmful, as described in part 110"—includes oil discharged in quantities that violate applicable water quality

³ The change from the use of "pipeline" to "piping" is to eliminate any possible confusion between the regulation's use of "pipeline", and "pipelines" regulated by DOT's Office of Pipeline Safety.

standards, cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines (40 CFR 110.3).⁴

Since the implementation of the SPCC regulation in 1973, EPA has received numerous questions concerning the scope of the definition of oil. Section 311(a)(1) of the CWA defines "oil" as "oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil." EPA interprets this definition to include crude oil and refined petroleum products as well as non-petroleum oils such as vegetable and animal oils. The Agency solicits comments on the appropriateness of this interpretation for the SPCC program.

The facilities, equipment, and operations that are exempt from this regulation are described in § 112.1(d). EPA is proposing several changes to this section. In proposed paragraph (d)(1)(i), a reference to proposed § 112.1(b)(1), which delineates the scope of the Oil Pollution Prevention rule, has been added.

To avoid duplicative and unnecessarily burdensome regulation, the Agency is proposing in the new § 112.1(d)(4) to exempt underground storage tanks (defined by proposed § 112.2(v)) that are now subject to the technical requirements of EPA's Underground Storage Tank (UST) program (40 CFR part 280). In addition, EPA is proposing in § 112.1(d)(2)(i) to exclude the capacity of UST-regulated underground storage tanks from the calculation of underground oil storage capacity made to determine whether a facility is subject to this regulation. Under proposed § 112.7(a)(3), however, any facility subject to this regulation must have the location and contents of all tanks marked on the facility diagram for informational purposes.

Notwithstanding differences in the scope and focus of the SPCC and UST programs, EPA believes that the UST technical requirements codified in 40 CFR part 280 are consistent with the underlying regulatory purposes of the SPCC program and are equally protective for purposes of preventing discharges of oil into waters of the United States. For example, under the UST program, new and existing tanks must meet specific corrosion protection requirements, be equipped with

catchment basins, automatic shutoff devices, and alarms, and be subjected to periodic tank tightness testing. These requirements achieve a level of protection needed to ensure that a discharge of oil will not reach bodies of water protected by the CWA.

It is important to note that the proposed § 112.1(d)(2)(i) and § 112.1(d)(4) exemptions apply only to UST-regulated tanks that meet the definition of "underground storage tank" proposed in § 112.2(v). The proposed rule makes this clear in § 112.1(b)(3), by providing that "bunkered tanks" and "partially buried tanks" (defined by the proposed § 112.2(c) and § 112.2(n), respectively), as well as tanks in subterranean vaults, are considered aboveground storage tanks for the purposes of this regulation and are subject to the requirements of the regulation. Compared to completely buried tanks, spills from these tanks are more likely to enter surface waters regulated under the CWA. For further discussion of the relationship of the SPCC program to the UST program, see Section IV.A. of this preamble.

EPA is proposing in both § 112.1(d)(2)(i) and (ii) to exempt from the calculation of storage capacity, tanks and facilities that are "permanently closed," as defined in the proposed § 112.2(o). This proposed approach results from experience gained by EPA in administering the SPCC program, which indicates that tanks and facilities properly closed on a permanent basis need not continue maintaining current SPCC Plans. Such tanks and facilities cannot reasonably be expected to discharge oil in quantities that may be harmful in the manner described in the proposed § 112.1(b)(1). Therefore, the Agency is proposing to exempt oil storage tanks meeting the criteria for being "permanently closed" in proposed § 112.2(o) and facilities at which all tanks are permanently closed. The Agency has considerable experience with applying the criteria to show that they are appropriate for defining SPCC-regulated facilities that do not represent a significant threat of a discharge of oil in quantities that may be harmful. However, the Agency specifically solicits comments on the appropriateness of these criteria, including supporting data and descriptions of suggested alternative criteria for defining "permanently closed" tanks.

Facilities with some permanently closed tanks, where other tanks contain sufficient capacity and are not permanently closed, remain subject to this regulation unless otherwise

exempted under § 112.1(d). The Agency has also found that, in contrast to facilities and tanks that are permanently closed, facilities and tanks used for standby storage, seasonal storage, or temporary storage can reasonably be expected to discharge oil as described in proposed § 112.1(b)(1). EPA is, therefore, clarifying in proposed § 112.1(b)(2) that such facilities and tanks are not considered permanently closed.

To avoid redundancy with the requirements of the U.S. Department of the Interior's Minerals Management Service (MMS), the Agency is proposing in § 112.1(d)(3) to exempt from this regulation offshore oil production or exploration facilities subject to MMS Operating Orders, notices, and regulations. This proposal is based on analysis of the MMS Operating Orders and the conclusion that they require adequate spill prevention, control, and countermeasures practices that are directed more specifically to the facilities subject to these requirements.

As described in section II.A of this preamble, EPA is proposing a new facility notification requirement as § 112.1(e). Notification would be provided to EPA on a standard form, which is proposed as appendix B of 40 CFR part 112.

EPA is proposing to amend current § 112.1(e) (redesignated as proposed § 112.1(f)) to clarify that adherence to the SPCC regulation does not relieve facility owners and operators from complying with applicable local, State, and Federal regulations. These regulations include, but are not limited to, those issued by the USCG, the Occupational Safety and Health Administration (OSHA), the Federal Emergency Management Agency (FEMA), and EPA's UST program. The Agency is also proposing that owners and operators consider current applicable regulations, standards, and codes, including certain standards and recommended practices established by the American Petroleum Institute (API) (series 12, 620, and 650), the National Fire Protection Association (NFPA) (30 and 30A), the American Society of Mechanical Engineers (ASME) Standards, the National Association of Corrosion Engineers (NACE) Standards, American National Standards Institute (ANSI) (B31.3), and Underwriters Laboratories (UL) Standards, in determining practices that may be required for particular facilities by the requirement that all SPCC Plans be prepared in accordance with good engineering practice. The standard of good engineering practice, which applies to all SPCC Plans, will require that

⁴ Amendments to the CWA made by the OPA in 1990 broaden the concept of quantities that may be harmful to include not only "the public health or welfare" but also "the environment."

appropriate provisions of applicable codes, standards, and regulations be incorporated into the SPCC Plan for a particular facility.

B. Section 112.2—Definitions

Definitions for the following terms have been proposed to be revised, added or modified as follows:

- A definition of "discharge" has been revised to reflect changes to the definition in the 1978 amendments to the CWA. Discharges in compliance with a permit under section 402 of the CWA are not considered a discharge for the purposes of this part.
- A definition of "navigable waters" has been revised to conform with revisions to the regulation on the discharge of oil (40 CFR part 110).
- A definition of "offshore facility" has been revised to conform with the CWA and the March 8, 1990, revisions to the NCP. Offshore facilities are any facility of any kind located in, on, or under any of the navigable waters of the United States, and any facility of any kind that is subject to the jurisdiction of the United States and is located in, on, or under any other waters.
- A definition of "United States" has been revised to conform with revisions to the definition of the United States in the 1978 amendments to the CWA. The Commonwealth of the Northern Mariana Islands has been added to the definition.
- A definition of "contiguous zone" has been added to conform with the amendments to the CWA in 1978 and the March 8, 1990, revisions to the NCP.
- A definition of "wetlands" has been added to define the term as used in the definition of "navigable waters." The definition conforms with the definition in the oil discharge regulation (40 CFR part 110).
- Definitions for the terms "breakout tank" and "bulk storage tank" have been added to clarify the distinction between facilities regulated by DOT and EPA. EPA regulates facilities with bulk storage tanks. Breakout tanks are used to compensate for pressure surges or control and maintain pressure through pipelines. These tanks are frequently in-line and are regulated by DOT.
- A definition of "bunkered tank" has been added to clarify that bunkered tanks are a subset of "partially buried tanks." Bunkered tank means a tank constructed or placed in the ground by cutting the earth and recovering in a manner whereby the tank breaks the natural grade of the land. As such, bunkered tanks are subject to the provisions of 40 CFR part 112 as aboveground tanks.
- A definition of "facility" has been added based on the MOU between the Secretary of Transportation and the EPA Administrator dated November 24, 1971 (36 FR 24080). More detailed discussion of the types of facilities covered is in Appendix A.
- Definitions of "oil production facilities (onshore)" and "oil drilling, production, or workover facilities (offshore)" have been moved from existing § 112.7(e)(5)(i) and § 112.7(e)(7)(i), respectively.
- A definition of "partially buried tank" has been added to clarify the distinction between partially buried tanks and

underground storage tanks, the latter being defined in this proposed rulemaking for SPCC purposes as those tanks completely covered with earth. Partially buried tanks are subject to the provisions of 40 CFR part 112 as aboveground tanks.

- A definition of "permanently closed" was added to clarify the scope of facilities and tanks excluded from coverage by this part. EPA solicits comments on the requirement to ensure that tank vapors remain below the lower explosive limit.
- A definition of "SPCC Plan" has been added to further explain its purpose and scope. The Plan provides a written explanation of a facility's compliance with the requirements of the regulation, including equipment, manpower, procedures, and steps to prevent, control, and provide adequate countermeasures to an oil spill.
- The definition of "spill event" was modified to correspond to the changes described in the applicability section of this rule relating to the expanded scope of CWA jurisdiction.
- A definition for "storage capacity" has been added to clarify that it includes the total capacity of a tank or container capable of storing oil or oil mixtures. Because the percentage of oil in a mixture is determined by the operator and can be changed at will, the total capacity of a tank or container is considered in determining applicability under this part, regardless of whether the tank or container is filled with oil or a mixture of oil and another substance, as long as the mixture would violate standards in 40 CFR part 110.
- A definition of "underground storage tank" has been added. The SPCC program defines the term more narrowly than the UST program under RCRA Subtitle I. Under the SPCC program, EPA proposes to regulate any tanks that are not completely buried as aboveground tanks, because tanks with exposed surfaces exhibit a potential to discharge into navigable waters and adjoining shorelines. See also the discussion in the preamble regarding the relationship between the SPCC and the UST programs.

EPA is not proposing any changes to the definition of "oil" (except its redesignation from § 112.2(a) to § 112.2(i)).

C. Section 112.3—Requirement to Prepare and Implement a Spill Prevention, Control, and Countermeasures Plan

This section describes the requirements for the preparation and implementation of SPCC Plans. Most of the proposed modifications to § 112.3 have been provided for clarification. However, in paragraph (b) of the current rule, a new facility is required to prepare a Plan within six months after operations begin and to implement the Plan within one year. In proposed paragraph (b), a new facility is required to prepare and fully implement a Plan before beginning operations, unless an extension has been granted by the Regional Administrator (proposed

§ 112.5(a) requires that Plans be amended before any change is made that materially affects the facility's potential for discharge of oil into the waters of the United States). Experience with the implementation of this regulation shows that many types of failures occur during or shortly following facility startup and that virtually all prevention, containment, and countermeasures practices are a part of the facility design or construction. Therefore, the Agency believes that new facilities should be required to plan and execute the provisions governing spill prevention prior to starting operations. EPA assumes for the purpose of this proposed provision that all existing facilities subject to this rule have had their SPCC Plans prepared since the regulation was issued, therefore, only new facilities would be affected by this proposed change in timing for the submittal of their Plans.

EPA also assumes in § 112.3(c) that owners/operators of existing onshore and offshore mobile or portable facilities have prepared and implemented a facility SPCC Plan as required by § 112.3(b); therefore, only new facilities are affected by the change in timing for the submission of the SPCC Plans.

Additional requirements concerning Plan certification by a Registered Professional Engineer are specified in § 112.3(d). The existing language states that "no SPCC Plan shall be effective to satisfy the requirements of this part unless it has been reviewed by a Registered Professional Engineer and certified to by such Professional Engineer. By means of this certification the engineer, having examined the facility and being familiar with the provisions of this part, shall attest that the SPCC Plan has been prepared in accordance with good engineering practices. Such certification shall in no way . . ."

This existing language states that the Professional Engineer (PE) must only be certified. The Agency is soliciting comments on the advantages and disadvantages associated with the PE being registered in the State in which the facility is located and the additional requirement that this PE should not be an employee of the facility or have any other direct financial interest in the facility.

The U.S. General Accounting Office (GAO), in a 1989 report, "Inland Oil Spills: Stronger Regulation and Enforcement Needed to Avoid Future Incidents" (GAO/RCED-89-85), recommended that EPA evaluate the advantages and disadvantages of

requiring facilities to obtain certification from independent engineers.

The Agency notes that not having the PE otherwise associated with the facility may avoid any potential conflicts of interest or appearance of conflicts of interest that could arise from allowing an employee of a regulated party to certify a SPCC Plan. The Agency also notes that a requirement that a PE be licensed in the State in which the facility is located would allow the State licensing board to more easily address the actions of the PE under its jurisdiction, and that the PE may have greater familiarity with the State and local requirements related to the facility under review.

The Agency notes that disadvantages associated with the above approaches have been expressed by several organizations, who object to such requirements as challenging the integrity of professional engineers. They also point out that these requirements would impose substantial costs without enhancing the integrity of the certification process.

To assist the Agency in addressing the GAO and Task Force recommendations cited above, EPA specifically solicits comments or data regarding the ramifications of requiring that the certifying professional engineer not be an employee of the owner or operator.

In addition, under the proposed rule, the Engineer must attest that required testing has been completed and that the Plan meets the requirements of regulation for the facility. These revisions promote the Agency's intent in the original promulgation of § 112.3(d) that SPCC Plans be certified by a Registered Professional Engineer exercising independent judgment. The Agency intends these new requirements to be met when a new Plan is prepared after promulgation of this proposed rule, or an existing Plan is amended, pursuant to § 112.5. During inspections for compliance with the current SPCC requirements, some facility owners and operators have argued that they have not interpreted the current regulatory language to require that the certifying Engineer physically visit the facility. EPA believes the current regulatory language (e.g., requiring the engineer to examine the facility) clearly requires the certifying Engineer to visit the facility prior to certifying the SPCC Plan. The proposed change clarifies this requirement by specifying that the Professional Engineer must be physically present to examine the facility.

As described in paragraph (e), the SPCC Plan must be available at a facility if the facility is normally

attended eight hours per day. Some owners or operators at facilities operating one shift per day have interpreted this requirement as not applying to a facility that is in operation only seven and one half hours per day, deducting a half hour for lunch. The Agency strongly believes that to be most useful in preventing and mitigating discharges, the SPCC Plan must be an integral part of manned facility operations. Therefore, the Agency has chosen a four-hour minimum attendance requirement in the proposed rule to ensure that facilities operating one shift per day are required to maintain SPCC plans at the facility.

In paragraph (f), the owner or operator of new facilities described in paragraph (b) may in defined circumstances apply for an extension of time to comply with the requirements of this part. Existing facilities described in paragraphs (a) and (c) have had since 1973 to comply with the requirement and have their SPCC Plans in place, and therefore, this provision does not apply to those facilities.

D. Section 112.4—Amendment of SPCC Plans by Regional Administrator

This section describes the review of a Plan by the Regional Administrator in the event of certain types of spills and procedures for requiring an amendment to the Plan. In proposed paragraph (a)(4), owners or operators are required to provide the Regional Administrator with information on the name and address of any registered agent. In some instances, a registered agent of the owner or operator may have information needed by the Regional Administrator. The Regional Administrator may also need to contact the agent with further questions or transmit his review of the Plan back to the agent.

In proposed paragraph (a)(10), information on the nature and volume of oil spilled is required, in addition to the information currently required. Information on the nature and volume of oil spilled provides the Agency with additional information to identify select problem areas where additional regulatory emphasis may be needed. EPA also believes that this information will assist the Regional Administrator in determining if amendment of the SPCC Plan is necessary and in determining future oil pollution prevention policies.

In proposed paragraph (b), the references to § 112.3(a), (b), and (c) have been deleted because the times allowed in these paragraphs for the preparation and implementation of the Plan are proposed for deletion.

Paragraph (c) of the current rule requires that a complete copy of all

information provided to the Regional Administrator be provided to the State agency in charge of water pollution control activities in which the facility is located. Proposed paragraph (c) would require that the information be sent to the State agency in charge of oil pollution control activities. The EPA is proposing this change because it is the appropriate agency to contact in many States.

In proposed § 112.4(d), a sentence has been added that discusses the review by the Regional Administrator of materials submitted under proposed § 112.7(d). Proposed § 112.7(d) requires, among other things, the owner or operator to submit to the Regional Administrator certain materials, such as a contingency plan, if the installation of structures or equipment listed in § 112.7(c) is not practicable.

E. Section 112.5—Amendment of SPCC Plans by Owners or Operators

EPA is proposing to revise § 112.5(a) to require that Plans be amended before any change is made in facility design, construction, operation, or maintenance affecting the facility's potential for discharge of oil into waters of the United States unless an extension has been granted by the Regional Administrator. This provision is consistent with the provision proposing that SPCC Plans for new facilities be prepared and implemented before facility operations begin. EPA is also proposing to clarify which changes require Plan amendments by listing the following types of changes as examples: (1) Commission or decommission of tanks; (2) replacement, reconstruction, or movement of tanks; (3) reconstruction, replacement, or installation of piping systems; (4) construction or demolition that might alter secondary containment structures; or (5) revision of standard operation or maintenance procedures at a facility. These examples are not an exclusive list of changes that require a Plan amendment.

The owner or operator of a facility subject to § 112.3(a), (b), or (c) is required by the current § 112.5(b) to review and evaluate the facility SPCC Plan at least every three years, and to amend the Plan within six months to include more effective prevention and control technology if: (1) Such technology will significantly reduce the likelihood of a spill from the facility; and (2) the technology has been field-proven at the time of the review.

The current § 112.5(c) states that, to be effective, all amendments to a facility's Plan must be certified by a

Professional Engineer in accordance with § 112.3(d). EPA is proposing an exception to this provision for any changes to the SPCC Plan emergency contact list (required by the proposed § 112.7(a)(3)(ix)). This change does not affect the technical/engineering aspects of the SPCC Plan, or the characteristics of the facility and, therefore, does not require certification by a Professional Engineer. It is important that the SPCC Plan emergency contact list be current in order to rapidly respond to spills.

F. Section 112.6—Civil Penalties for Violation of Oil Pollution Prevention Regulation

This section describes the penalties associated with failure to comply with certain listed sections of the rule. In this proposed rule, §§ 112.1(e), 112.7, 112.8, 112.9, 112.10, and 112.11 are added to the list of required provisions.

The OPA changes the penalty structure under the CWA (see Section I.C. of this preamble, Oil Pollution Act of 1990, for changes in liability limits and penalties). All violations of this regulation on or after August 18, 1990 are subject to the procedures set out in section 311 of the CWA as amended by the OPA. The Agency is reviewing the need for clarifying changes to § 112.6 and to 40 CFR part 114 in light of the OPA amendments.

G. Section 112.7—Spill Prevention, Control, and Countermeasures Plan General Requirements

The Agency is proposing to separate existing provisions of 40 CFR 112.7 into five sections (§§ 112.7, 112.8, 112.9, 112.10, and 112.11) based on facility type. Proposed § 112.7 provides general requirements for preparing SPCC Plans while §§ 112.8, 112.9, 112.10, and 112.11 address detailed Plan requirements for onshore facilities (excluding production facilities); onshore production facilities; onshore oil drilling and workover facilities; and offshore oil drilling, production, and workover facilities, respectively. The purpose of the reorganization of the current § 112.7 is for clarity and ease in using the regulation but is not intended to make substantive changes to the regulation; the new regulatory citations created by the reorganization do not by themselves require rewriting or recertification of SPCC Plans.

Section 112.3(a) of the current rule requires that SPCC Plans be prepared in accordance with § 112.7. The Agency believes, however, that clarification of the existing regulation is necessary because of confusion on the part of some owners or operators who have interpreted the current rule's use of the

words "should" and "guidelines" as indications that compliance with applicable provisions of § 112.7 is optional. The current regulation requires that all SPCC Plans be prepared in accordance with good engineering practice. The Agency originally promulgated § 112.7 (now reorganized as proposed §§ 112.7, 112.8, 112.9, 112.10, and 112.11) to require that SPCC Plans be prepared in accordance with the appropriate provisions in that section in the belief that such practices are good engineering practice for facilities described in the regulation. However, the regulatory language "should" was used in most provisions to provide flexibility for facilities with unique circumstances that could show that such practices do not represent good engineering practice.

To eliminate any misunderstanding, the words "requirements" and "shall" have generally been substituted for the words "guidelines" and "should" in the proposed revisions to §§ 112.7, 112.8, 112.9, 112.10, and 112.11.

Nevertheless, because of the differences in facility design, the Agency continues to recognize that it is not always feasible or consistent with good engineering practice to mandate the same requirements for every facility to prevent and to contain oil spills. Thus, the Agency has reviewed each of the provisions of proposed §§ 112.7, 112.8, 112.9, 112.10, and 112.11 and, where appropriate, is proposing the provision as a recommendation for consideration by facility owners or operators in evaluating the requirements of good engineering practice.

Furthermore, as is the case in the current regulation, the proposed revision continues to provide for deviation from the requirements of § 112.7 where the owners or operators cannot meet the specific requirements set forth in the rule. A new proposed technical waiver in § 112.7(a)(2) allows for the owner or operator to provide equivalent alternate protection that is not specified in §§ 112.7(c), 112.8, 112.9, 112.10, and 112.11. EPA, in the exercise of its authority to inspect facilities and SPCC plans, of course, retains the authority to find that such alternative methods of protection do not provide equivalent protection.

In addition to clarifying language, the Agency has proposed in today's rule two other series of changes. First, the Agency has specified many of the inspection and monitoring time periods referred to in §§ 112.7, 112.8, 112.9, 112.10, and 112.11. In the current rule, many time periods are determined by the owner or operator and listed in the SPCC Plan, in accordance with good

engineering practice. The Agency is proposing to define most of the time periods, while leaving only a few to interpretation by the owner or operator. By specifying time periods based on engineering practice, the Agency intends to provide the regulated community with greater certainty concerning its obligations. However, because of the diversity of facilities subject to this regulation, not all time periods can be standardized based on engineering practice.

Second, in various places in §§ 112.8 and 112.9 of the proposed rule, recommendations have been added to follow relevant industry standards or recommended practices, such as API series 12, 620, 650, and 2000; ASME B31.3, B96.1, and section VIII; NFPA 30, 31, and 31a; and UL 142. While the proposed rule does not specifically incorporate these standards, the Agency believes that adherence to appropriate industry standards is, in most cases, strong evidence of adherence to good engineering practice. The Agency recommends that these publications and others on recommended practices and procedures be consulted when developing a Plan.

The following discussion focuses on revised provisions, new requirements, and new recommendations in each paragraph in proposed § 112.7.

In § 112.7(a) of the current rule, facilities are required to include in the Plan information about spill events occurring prior to the effective date of the original Oil Pollution Prevention rule (1973). Because such information has little current relevance, the provision is proposed to be deleted. Proposed paragraph (a) includes a general description of the SPCC Plan, which is in the introductory text of § 112.7 of the current rule. Four new paragraphs have been proposed for addition to paragraph (a).

In proposed paragraph (a)(2), deviation from the requirements of paragraph (c) of this section and the requirements of §§ 112.8, 112.9, 112.10, and 112.11, which apply to a specific facility and which include specific provisions for structures and equipment, is allowed, as long as that equivalent protection is provided by other means. This provision is intended to provide much of the flexibility to incorporate differences in a diverse regulated community that was previously intended by the use of the regulatory language "should." Taken together with provisions clearly defined as requirements, this provision provides a clearer description of the Agency's

expectations for the purposes of Plan preparation.

Proposed paragraph (a)(3) clarifies the characteristics of a facility that must be described in the Plan, including unit-by-unit storage capacity, type and quantity of oil stored, estimates of quantity of oils potentially discharged, possible spill pathways, spill prevention measures, spill control measures, spill countermeasures, provisions for disposal of recovered materials, and a contact list with appropriate phone numbers. The description of the facility's physical plant must also include a facility diagram on which the location and contents of all tanks must be marked, regardless of whether the tanks are subject to all the provisions of 40 CFR part 280. A complete facility diagram will assist in response actions.

Proposed paragraph (a)(4) requires documentation in the Plan to enable a person reporting a spill to provide essential information (based on Agency experience) to organizations on the contact list. As the result of Agency experience during emergency conditions, proposed paragraph (a)(5) requires that portions of the Plan describing procedures to be used in emergency circumstances be organized in a manner to make them readily useable in an emergency.

Paragraph (b) of the proposed rule (§ 112.7(b) of the current rule) changes the "should" to "shall" for purposes of clarification. Section 112.7(c) of the current rule lists appropriate containment and diversionary structures and requires that dikes, berms, or retaining walls be sufficiently impervious to contain spilled oil. A proposed revision to this paragraph clarifies that the entire containment system, including walls and floor, must be impervious to oil for 72 hours. EPA believes that the specificity of a 72-hour standard provides the regulated community with greater clarification and flexibility than the phrase "sufficiently impervious" currently in the regulation.

The Agency recognizes that spills occur while facilities are unattended; however, EPA believes that most facilities are attended at some time during a 72-hour period. Therefore, a containment system that is impervious to oil for 72 hours will allow time for discovery and removal of an oil spill in most cases. This requirement is consistent with the provision for diked areas surrounding bulk storage tanks in proposed § 112.8(c)(2). Another proposed revision to this paragraph clarifies and further defines the phrase "containment system that is impervious to oil" as being a system constructed so

that spills will not permeate, drain or infiltrate or otherwise escape to surface waters before cleanup occurs.

The Agency is aware that for certain facilities, such as some electrical substations that have gravel beds surrounding equipment to prevent electrical and fire hazards, compliance with proposed § 112.7(c) may not be practicable. For these facilities, § 112.7(d) of the current rule describes the procedures for facilities where the installation of structures and equipment listed in paragraph (c) is not practicable. The Agency believes that the alternative requirements of § 112.7(d) provide the regulated community with additional flexibility on complying with the Oil Pollution Prevention regulation while fulfilling the intent of the CWA.

The proposed rule would add several new requirements. First, facilities would be required to conduct integrity testing of tanks every five years at a minimum. This is in contrast to the proposed requirement in § 112.8(c)(6) for integrity testing of tanks every ten years at facilities, that are able to incorporate secondary containment features. In addition, the proposed rule would require facilities without secondary containment to conduct integrity and leak testing of the valves and piping every year at a minimum. Annual testing has been proposed because valve and piping system failures are a major contributor to oil spills.⁶

The current § 112.7(d) requires that a strong oil spill contingency plan and a written commitment of manpower, equipment, and materials for spill control and removal be provided for facilities without secondary containment. Since these facilities do not have oil spill technology that uses secondary containment, prevention and countermeasures become of primary importance and these measures will have to be implemented immediately to prevent spills from reaching navigable waters. Proposed paragraph (d) clarifies that the contingency plan must be provided to the Regional Administrator. In addition, proposed paragraph (d) references proposed § 112.4(d), allows the Regional Administrator to approve the Plan or require amendment of the Plan.

The contingency plan is a subsection of an SPCC Plan. An SPCC Plan can be divided into two major concepts: (1) Design, operation, and maintenance procedures to prevent and control spills, and (2) how a facility's personnel are to

respond to a discharge. The contingency plan is designed to deal with the second concept. It is proposed that the contingency plan shall be a separate section of the SPCC Plan because it would be more accessible during emergencies.

One of the first steps in developing a contingency plan is to define the potential hazard. Requirements to define a hazard are in § 112.7(b). Typically, to determine the potential hazard, the following would be examined: Potential failures, the size of a spill resulting from each type of failure, how fast and long the spill event would take to occur, and what the spill might impact. To determine what the spill may impact, the potential spill size, rate of flow, and direction of travel needs to be analyzed. The OPA requires facilities that pose a substantial threat or harm (e.g., facilities without secondary containment) to the navigable waters to prepare a facility specific response plan. This requirement will be addressed in Phase II revisions to the SPCC regulation.

Paragraph (d)(1) of the current rule states that an oil contingency plan must follow the provisions of 40 CFR part 109. The proposed paragraph no longer refers to 40 CFR part 109, but, specifies basic requirements for an oil contingency plan. The proposed revisions to this paragraph would require that the Plan include a description of response plans, personnel needs, methods of mechanical containment, removal of spilled oil, and access and availability of sorbents, booms, and other equipment. Proposed paragraph (d)(1) would require that the Plan not rely upon response methods other than containment and physical removal of oil from the water, unless such response methods have been approved for the contingency plan by the Regional Administrator. The additional approval for the actual use of dispersants and other chemicals to respond to oil spills in navigable waters would continue to be governed by 40 CFR part 300, subpart J of the National Contingency Plan.

Proposed paragraph (d)(2) contains a recommendation that the facility owner or operator consider factors such as financial capability in making the written commitment of manpower, equipment, and materials.

Section 112.7(e) of the existing regulation lists the provisions specific to various types of facilities. This section has been reorganized and divided into §§ 112.8, 112.9, 112.10, and 112.11. The remaining paragraphs in proposed § 112.7 are discussed below.

Proposed Section 112.7(e): Inspection, tests and records. This is § 112.7(e)(8) in

⁶ Twelve percent of all releases are caused by pipe leaks and valve failures. "Aboveground Storage Tank Incident Information Project." API. Washington, DC, December 20, 1988.

the current regulation. A facility should continually conduct self-inspections and regular maintenance on its equipment. In the proposed rule, all records of inspections and tests are to be maintained with the SPCC Plan because these records need to be readily accessible to EPA personnel and the certifying PE. The proposed rule changes from three to five years the period for which records of inspections and all test results (along with the written procedures for performing the inspections and tests) must be maintained with the SPCC Plan. The records of tests, inspections, and maintenance should be updated continuously. If these records were part of the Plan, as stated in the existing rule, the Plan would need to be amended each time old records were removed and new records added. The use of "maintained with" is intended to eliminate this problem.

The proposed rule change from three to five years for retention of records of inspections, test results, and written procedures for performance is consistent with the Federal statute of limitations on assessment of civil penalties for SPCC regulatory violations. Extending this requirement to five years will ensure that facility owners or operators have records needed to establish compliance with the Oil Pollution Prevention regulation. The provision requiring inclusion of all records of test results is a clarification of what inspections include.

Proposed § 112.7(f): Personnel, training, and spill prevention procedures. This section is § 112.7(e)(10) in the current regulation. Included in this section are requirements for training facility personnel. A new recommendation that training exercises be conducted yearly and that new employees be trained within their first week of work is proposed in § 112.7(f)(1). A high percentage of spills are caused by operator error, therefore, training and briefings are important for the safe and proper functioning of a facility. Training encourages up-to-date planning for the control and response to a spill. Training courses help sharpen operating and response skills, introduce the latest ideas and techniques, and promote contact with the emergency response organization and familiarity with the SPCC Plan. Refresher training must be carried out in a consistent and regular manner to ensure currency and capability of employees. New employees may have a higher probability for operation errors and, therefore, need training as soon as possible after their employment. Facility

training in emergency response operations could be held in conjunction with local contingency planning efforts in accord with SARA Title III requirements.

Proposed § 112.7(g): Security (excluding oil production facilities). This section is § 112.7(e)(9) in the current regulation. Requirements for fencing, locks, lighting, and other security measures at facilities are described in this section.

Vandalism is a factor in many spills from facilities, therefore, there is a need for adequate and effective security to prevent access to the site by unauthorized persons and to prevent tampering with equipment and tanks. Paragraph (e)(9)(ii) of the current rule requires that master flow and drain valves be securely locked in the closed position when in non-operating or non-standby status. Because of changes in technology and the use of manual and electronic valving, the Agency believes that this provision should be clarified to require closure of valves; however, the method of securing valves is left to the discretion of the facility and good engineering practice, as described in proposed § 112.7(g)(2).

Paragraph (e)(9)(iv) of the current rule requires that the loading/unloading connections of oil pipelines be securely capped or blank-flanged when not in service or stand-by service for an extended time. Proposed paragraph (g)(4) clarifies "an extended time" to be a time greater than "six months." This time period is based on experience in the Regions. Regional personnel found that some spills were caused by loading or unloading oil through the wrong pipeline or turning the wrong valve when the pipeline in question was actually out-of-service. Since this rule applies to facilities and tanks operating seasonally and since a number of loading/unloading connections are used seasonally, a period of six months is proposed.

Proposed § 112.7(h): Facility tank car and tank truck loading/unloading rack (excluding offshore facilities). This section is § 112.7(e)(4) in the current regulation. Because many onshore facilities subject to the SPCC regulation have tank car and tank truck loading/unloading racks, this paragraph was kept in the general applicability section.

Proposed § 112.7(i). This section references conformance with the applicable provisions in proposed §§ 112.8, 112.9, 112.10, and 112.11 and if more stringent, with State rules, regulations, and guidelines.

H. Section 112.8: Spill Prevention, Control, and Countermeasures Plan Requirements for Onshore Facilities (Excluding Production Facilities)

This section combines §§ 112.7(e)(1), 112.7(e)(2), and 112.7(e)(3) of the current regulation. The word "plant" is changed to "facility" to clarify EPA's intent. Current § 112.7(e)(1) discusses facility drainage systems and is proposed to be renumbered as paragraph (b).

Proposed § 112.8(b)(3) clarifies that only undiked areas of a facility's property that are located such that they have a reasonable potential to be contaminated by an oil spill are required to drain into a pond, lagoon, or catchment basin. A good SPCC Plan should seek to separate reasonably foreseeable sources of contamination and non-contamination.

In proposed § 112.8(b)(4), "plant drainage" is changed to "facility drainage"; "ditches" is changed to "drainage" to clarify the meaning of the section. It is proposed that spilled oil shall be retained in the plant rather than returned to the plant. This change follows the spill prevention and control intent of this rule. Furthermore, it should be easier to retain spilled oil rather than retrieve oil that has been spilled and discharged from the facility. This should enhance efforts to prevent the discharge from reaching navigable waters.

Current § 112.7(e)(i)(v) is proposed as § 112.8(b)(5) and has been reworded to improve its clarity.

Proposed § 112.8(b)(6) includes a clarification that compliance with the SPCC regulation does not preclude the need for owners or operators to comply with the requirements of Federal, State and local agencies such as those for facilities in areas subject to flooding. The Plan should address these additional measures related to flooding. This is consistent with the FEMA promulgated requirements in 44 CFR part 60 for aboveground storage tanks located in flood hazard areas. For further discussion of FEMA's flood plain management requirements, see section IV.E. of this preamble.

Current § 112.7(e)(2) discusses bulk storage containers and is proposed to be renumbered as § 112.8(c). Proposed § 112.8(c)(1) contains a new recommendation that tanks conform with relevant industry standards as "good engineering practice". Paragraph (e)(2)(ii) of the current rule requires that tank installations include a secondary means of containment for the contents of the largest single tank and sufficient freeboard to allow for precipitation. Although the current rule and the

proposed revisions do not set a standard for "sufficient" freeboard. EPA recommends freeboard sufficient to contain a 25-year storm event. Certain facilities may have equipment such as electrical transformers that contain significant quantities of oil for operational purposes rather than storage purposes. EPA has determined for safety and other considerations that such oil filled equipment should not be subject to the provisions of proposed § 112.8(c) or § 112.9(d) addressing bulk storage containers at onshore facilities because the primary purpose of this equipment is not the storage of oil in bulk. Consequently, facilities with equipment containing oil for ancillary purposes do not need to provide secondary containment for this equipment nor implement the other provisions of proposed § 112.8(c) or § 112.9(d). Oil-filled equipment must meet other applicable SPCC requirements including the general requirements and the requirements of § 122.7, including § 112.7(c), to provide appropriate containment and or diversionary structures to prevent discharged oil from reaching a navigable water course. The general requirement for secondary containment, which can be provided by various means including drainage systems, spill diversion ponds, etc., will provide for safety and also meet the goals of section 311(j)(1)(c) of the CWA. The oil storage capacity of the equipment, however, must be included in determining the total storage capacity of the facility, which determines whether a facility is subject to the Oil Pollution Prevention regulation. The Agency believes that this interpretation will ensure that facilities containing oil storage capacity above the quantity cut-offs prepare SPCC Plans while, at the same time, recognizing that certain types of equipment use oil in specialized ways for which the provisions of proposed § 112.8(c) or § 112.9(d) are not necessary.

The SPCC Plan, however, will not require that specific oil spills prevention measures designed for storage tanks, such as dikes, be installed. EPA also solicits comments and data that might identify operational rather than storage uses of oil, other than electrical transformers, for facilities that may not currently use secondary containment as a common industry practice.

The current rule also requires that diked areas must be sufficiently impervious to contain spilled oil. The proposed § 112.8(c)(2) clarifies that these diked areas must be able to contain spilled oil for at least 72 hours

(see previous discussion of § 112.7(c) in this preamble).

Current paragraph (e)(2)(iv) addresses underground metallic storage tanks and is proposed to be renumbered as § 112.8(c)(4). Because tanks currently subject to the technical requirements of the UST regulation (40 CFR part 280) would be generally exempted from SPCC requirements under proposed § 112.1(d)(4), proposed § 112.8(c)(4) would only apply to tanks not covered by the UST requirements.

Paragraph (e)(2)(iv) in the current rule requires buried tanks to be subjected to regular pressure testing. Under proposed § 112.8(c)(4), regular leak testing is recommended for such tanks. Leak testing is specified, rather than pressure testing, in order to be consistent with many State regulations. The Agency is not proposing to require leak testing under the Oil Pollution Prevention rule until further data are generated. The Agency is aware that this technology is evolving rapidly with new volumetric testing designs, acoustic detection methods, and tracer gas techniques in various stages of commercial development. EPA's Office of Underground Storage Tanks will be reviewing these new techniques and subsequently may issue technical requirements for tanks for which technical provisions under 40 CFR part 280 are currently deferred. These technical provisions may be incorporated into this regulation.

Under § 112.7(e)(2)(v) of the current rule, partially buried metallic tanks are to be avoided unless the shell is coated. Under proposed § 112.8(c)(5), it is recommended that partially buried or bunkered metallic tanks be avoided altogether. If such tanks are used, however, they must be protected from corrosion by coatings, cathodic protection, or other methods. This proposed provision is consistent with the requirements for completely buried tanks.

Paragraph (e)(2)(vi) of the current rule requires that aboveground tanks be subject to periodic integrity testing and lists suggested testing techniques. Proposed § 112.8(c)(6) specifies that the testing must be performed every ten years and when material repairs are conducted. An example of such testing is a full hydrostatic test performed when a tank is reconstructed or when the tank has undergone major repairs or major alterations. A major repair or alteration may include removing or replacing the annular plate ring, replacement of the tank bottom, or jacking of a tank shell. EPA believes that a ten-year testing interval is standard industry practice

although many types of tanks, such as those storing types of crude oil, may require more frequent testing. In addition to hydrostatic testing, visual testing, and a system of non-destructive shell testing, as listed in the current rule, the Agency recommends such techniques as radiographic, ultrasonic, or acoustic emissions testing for testing the integrity of aboveground tanks. The Agency does not believe that visual tests alone are sufficient for an integrity test, and that they should be used in combination with the aforementioned techniques.

Studies of the Ashland oil spill suggest that the tank collapse resulted from a brittle fracture in the shell of the tank. Adequate fracture toughness of the base metal of existing tanks is an important consideration in spill prevention, especially in cold weather. Although no definitive non-destructive test exists for testing fracture toughness, the API 650 standard establishes material toughness criteria that reduce the risk of brittle fracture; therefore, the Agency recommends that this standard be used as a starting point.

Section 112.7(e)(2)(vii) of the current rule discusses the factors to be considered to control leakage from defective internal heating coils. Under paragraph (e)(2)(vii)(A) of the current rule, steam return or exhaust lines from internal heating coils that discharge into an open water course must be monitored or passed through a settling tank, skimmer, or other separation or retention system. In proposed § 112.8(c)(7)(i), the Agency recommends that these systems be designed to hold the entire contents of the affected tank, be of sufficient size to contain a spill that may occur when the system is not being monitored, or have fail-safe oil leakage detectors. The revision in proposed § 112.8(c)(7)(ii) clarifies that consideration of the feasibility of installing an external heating system is a discretionary provision.

Paragraph (e)(2)(viii) of the current rule lists several devices to ensure that new and old tank installations are fail-safe engineered; one or more of these devices is required at a facility. Testing frequency of these devices may vary depending on the type of sensor and the manufacturer. The Agency is not specifying a time frame for testing sensing devices, but recommends regular testing in accordance with manufacturer specifications and schedules. Proposed § 112.8(c)(8)(v) allows for the use of other newly developed sensing devices if these devices will provide equivalent protection consistent with § 112.7(a).

Paragraph (e)(2)(x) of the current rule requires that oil leaks from tank seams, gaskets, rivets, and bolts sufficiently large to cause accumulation of oil in diked areas be promptly corrected. Proposed § 112.8(c)(10) adds a requirement that the accumulated oil or oil-contaminated materials must be removed within 72 hours from the time the spill event occurs. This time frame is consistent with the requirement for diked areas as specified in proposed § 112.7(c).

Paragraph (e)(2)(xi) of the current rule discusses the requirements for mobile or portable oil storage tanks. In proposed § 112.8(c)(11), it is recommended that these systems have a secondary means of containment for the largest container. Since many mobile and portable tanks are sited for a short duration at construction sites and moved frequently from location to location, EPA recognizes that it will not always be feasible to have secondary containment. If it is not technically feasible, the SPCC plan should include a complete discussion of why it is not feasible, and state the countermeasures to be used in case of a spill.

Section 112.7(e)(3) of the current regulation discusses facility transfer operations, pumping, and in-plant process and is proposed to be renumbered § 112.8(d). The current § 112.7(e)(3)(i) requires that buried piping installations have a protective coating and be cathodically protected if soil conditions warrant. Proposed § 112.8(d)(1) requires protective coating and cathodic protection for new or replaced buried piping, regardless of soil conditions. Based on EPA experience, the Agency believes that all soil conditions warrant protection of buried piping. However, the Agency is not requiring currently in-place buried piping to have a protective wrapping and be cathodically protected. The owner or operator of a facility in the past may have determined that soil conditions do not warrant these protection methods. Further, the Agency also believes that the activities associated with replacing all unprotected buried piping would possibly cause more spills than it would prevent. The proposed paragraph would allow facilities the option of complying with other corrosion protection standards for piping specified in 40 CFR part 280.

In proposed § 112.8(d)(1), it is recommended that piping installations shall be placed aboveground whenever possible. The Agency encourages the placement of these installations in leak-proof galleys that feed to the facility's

oil/water separator. Paragraph (e)(3)(ii) of the current rule requires that the terminal connection of oil pipelines be securely capped or blank-flanged when not in service or in stand-by service for an extended time. Proposed paragraph (d)(2) clarifies "an extended time" to be "six months or more."

Proposed § 112.8(d)(4) clarifies that all aboveground valves, piping, and appurtenances must be subjected to monthly examinations. In the current rule, this provision requires "regular" examinations of "aboveground valves and pipelines" only. It has been the Agency's experience that other appurtenances may be a major cause of oil spills and should be regularly examined. The current rule also suggests that periodic pressure testing may be warranted for piping in certain areas. The proposed rule recommends that facilities conduct annual integrity and leak testing of buried piping or monitor buried piping monthly following the monitoring requirements of 40 CFR part 280. In addition, records of this testing or monitoring are to be maintained for a period of at least five years (see section III.G., and § 112.7(e)). The Agency recommends that all valves, pipes, and appurtenances conform to relevant industry codes, such as ASME Standards.

Proposed § 112.8(d)(5) adds a recommendation that facilities post vehicle weight restriction to prevent damage to underground piping.

I. Section 112.9: Spill Prevention, Control, and Countermeasures Plan Requirements for Onshore Oil Production Facilities

This section is § 112.7(e)(5) in the current regulation. Paragraph (e)(5)(ii)(B) of the current rule requires that accumulations of oil from ditches, oil traps, sumps, or skimmers be removed. Proposed § 112.9(c)(2) clarifies that oil-contaminated soil, as well as accumulation of oil, must be removed. EPA encourages facilities to remove such accumulations immediately, or within the 72 hour required period if immediate removal is not feasible. EPA recognizes that many production facilities are not staffed during a given 72 hours, and therefore cleanup and discovery times may lag. EPA solicits comments on the appropriate amount of time for discovery and removal of spilled oil at production facilities. Proposed § 112.9(c)(3) is a new recommendation, for oil production facilities in areas subject to flooding, that the Plan address additional precautionary measures related to flooding. FEMA's requirements for aboveground storage tanks located in

flood hazard areas are discussed in Section IV. E. of this preamble.

Proposed § 112.9(d)(1) contains a recommendation that tanks conform with relevant industry standards, similar to the recommendation in proposed § 112.8(c). Paragraph (e)(5)(iii)(B) in the current rule requires secondary containment for the contents of the largest single tank, if feasible; the proposed revision in § 112.9(d)(2) clarifies that the containment must include sufficient freeboard to allow for precipitation. Agency experience has determined that freeboard for precipitation at production facilities to be very important because these facilities are frequently left unattended and water is more likely to accumulate in diked areas. Paragraph (e)(5)(iii)(C) of the current rule requires that production tanks must be visually examined on a scheduled periodic basis. Proposed § 112.9(d)(3) clarifies that the examination must occur at least once a year. It is also proposed that facility owners and operators be required to maintain the schedule and records for examinations of tanks for a period of five complete years, irrespective of changes in ownership (see Section III.G., and § 112.7(e)).

Paragraph (e)(5)(iv)(A) of the current rule requires that aboveground valves and piping be examined periodically on a scheduled basis. Proposed § 112.9(e)(1) clarifies that the examination must occur monthly, that the schedule of examinations must be included in the SPCC Plan, and that records must be maintained for five years (see Section III.G., and § 112.7(e)). EPA has found that failures in a facility's internal piping system are a major cause of oil spills. The Agency believes that monthly examinations will prove effective in the discovery and remediation of potential problems. Paragraph (e)(5)(iv)(B) of the current rule requires oil field brine disposal facilities to be examined often. EPA is not proposing a change to this requirement because the circumstances of location and staffing schedules vary greatly for such facilities. EPA, however, suggests that weekly examination will be an appropriate engineering standard for most facilities. Low temperature conditions, sudden temperature changes, or periods of low flow rates may require more frequent inspections.

Paragraph (e)(5)(iv)(C) of the current rule requires production facilities to have a program of flowline maintenance at the facility's transfer operations. EPA is proposing to change this requirement to a recommendation because the circumstances of locations, staffing, and design vary greatly for production

facilities. EPA suggests that monthly examinations are appropriate for most facilities.

J. Section 112.10: Spill Prevention, Control, and Countermeasures Plan Requirements for Onshore Oil Drilling and Workover Facilities

This section is § 112.7(e)(6) in the current rule and includes requirements for onshore oil drilling and workover facilities. Paragraph (e)(6)(i) of the current rule requires that mobile drilling or workover equipment be located so as to prevent spilled oil from reaching navigable waters.

Proposed § 112.10(d) requires that "when necessary," a blowout prevention assembly and well control system be installed that is capable of controlling any anticipated wellhead pressure that is expected to be encountered while that blowout assembly is on the well. EPA recognizes that a blowout prevention assembly is not necessary where pressures are not great enough to cause a blowout (gauge negative) and need not be required in all cases. However, a gauge negative reading must be evaluated in conjunction with an examination of the known history of the pressures encountered when drilling on the oil reservoir. The history of the reservoir may indicate that a blowout prevention assembly and well control system is needed. Where the history of the reservoir is not known, then a blowout prevention assembly and well control system must be installed.

K. Section 112.11: Spill Prevention, Control, and Countermeasures Plan Requirements for Offshore Oil Drilling, Production, or Workover Facilities

This section is § 112.7(e)(7) in the current regulation and includes the requirements for offshore oil drilling, production, and workover facilities. The definition of these facilities has been moved to § 112.2 (j). Numerous other editorial changes have been made to clarify the intent of this section.

As indicated in § 112.11(b) of this proposed regulation, offshore oil drilling, production, and workover facilities that are subject to the Operating Orders, notices, and regulations of the MMS are not subject to this part. Paragraph (e)(7)(ii) of the current rule requires removal of oil in collection equipment as often as necessary to prevent overflow. The proposed § 112.11(c) has been amended to require removal of collected oil at least once a year. EPA believes that yearly oil removal will prevent buildup of accumulated oils. A protracted removal period could lead to an accidental excess buildup and resultant overflow.

Paragraph (e)(7)(iii) of the current rule requires a regularly scheduled maintenance program for the liquid removal and pump start-up device. Because offshore facilities have less ability to control spills in navigable waters than onshore facilities, their containment devices are particularly important. In the proposed § 112.11(d), "regularly scheduled" is clarified as "monthly."

With regard to corrosion protection in proposed § 112.11(h), the Agency recommends that the appropriate NACE standards be followed in determining suitable corrosion protection for tanks. Proposed § 112.11(j) cites simulated spill testing as a preferred method to test and inspect oil spill prevention equipment and systems. Experience has demonstrated that properly maintained and functioning pollution prevention equipment is the most cost-effective way to control oil spills. These systems are crucial at offshore oil drilling, production, and workover facilities where a reduced ability to prevent oil from reaching navigable waters exists. Therefore, proposed § 112.11(j) has also been revised to require scheduled periodic testing and inspection of pollution prevention equipment not less than monthly.

Paragraph (e)(7)(x) of the current rule requires the owner or operator to describe well shut-in valves and devices and to keep detailed records for each well. Proposed § 112.11(k) clarifies that this documentation must be maintained at the facility for a period of no less than five years (see Section III.G. and § 112.7(e)).

Paragraph (e)(7)(xii) of the current rule describes extraordinary well control measures for emergency conditions. In proposed § 112.11(m), such measures are restated as recommendations. Further measures will be examined in the context of spill contingency planning. Contingency planning will be a major topic of the Phase Two rulemaking and the provisions in this proposed paragraph will be reviewed at that time.

The order of sections in the current § 112.7(e)(7)(xiii) has been changed for clarity. Section 112.7(e)(7)(xiii) of the current rule is proposed to be renumbered as § 112.11(s), and paragraphs (e)(7)(xiv) through (e)(7)(xviii) of the current rule are proposed to be renumbered as § 112.11 (n) through (r), accordingly.

IV. Relationship to Other Programs

A. Underground Storage Tanks

A number of underground and aboveground petroleum storage tanks (as defined by the proposed revisions to

40 CFR part 112) are subject to both the Oil Pollution Prevention regulation and the UST regulation (40 CFR part 280) issued under subtitle I of the Resource Conservation and Recovery Act (RCRA).

A goal of both the SPCC and UST programs is to prevent releases of petroleum, although there are differences in applicability, approach, and the regulated community. For example, the current Oil Pollution Prevention regulation is applicable to the owners or operators of facilities: (1) Possessing either underground storage capacity greater than 42,000 gallons of petroleum (or any other oil), or total aboveground storage capacity greater than 1,320 gallons of oil (or greater than 660 gallons of oil in a single aboveground tank); and (2) that, because of their location, could reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines. The UST regulations apply to owners or operators of underground petroleum tank systems (as defined in 40 CFR part 280) that have a volume at least ten percent beneath the surface of the ground. (The UST program also regulates underground storage tanks containing hazardous substances as defined by the Comprehensive Environmental Response, Compensation, and Liability Act, as amended (CERCLA)).

In addition, the SPCC program is designed to protect surface waters, whereas the UST program under RCRA subtitle I is intended, in part, to provide protection for ground water. Finally, the regulatory focus of the SPCC and UST programs currently differs significantly as they relate to underground storage tanks. The SPCC program regulates facilities with relatively large underground storage capacity, whereas the bulk of the currently regulated universe under the UST technical standards (40 CFR part 280) is small-capacity USTs at facilities such as gasoline filling stations. Because EPA believes that the UST program offers equivalent protection, EPA is proposing to exclude from SPCC coverage (with two limited exceptions described below) underground storage tanks that are covered by all of the UST program provisions in 40 CFR part 280.

It is important to note that application of the technical standards under the UST regulation has been deferred for several types of UST systems, including systems with field-constructed tanks (40 CFR 280.10(c)(5)). Therefore, such systems are not "subject to all of the UST provisions" and, thus, are subject to SPCC requirements under this

proposal. Further, this exclusion from SPCC coverage for underground storage tanks subject to all UST program provisions is limited to USTs meeting the proposed SPCC regulation definition of an underground storage tank, i.e., a tank completely covered with earth. The definition used in the UST program, 40 CFR part 280, is broader and includes partially buried tanks. The SPCC program proposes to regulate any tanks that are not completely buried because tanks with exposed surfaces exhibit a greater potential to discharge into navigable waters of the United States and other surface waters. Thus, a facility may have some tanks that are exempt from SPCC requirements and some tanks that are not exempt.

The applicability of 40 CFR part 112 is limited to facilities with underground or aboveground capacity as previously outlined (i.e., facilities possessing underground oil storage capacity greater than 42,000 gallons, total aboveground oil storage capacity greater than 1,320 gallons, or oil storage capacity greater than 660 gallons in a single aboveground tank). As a result of the proposed exclusion from SPCC program coverage for tanks currently subject to all UST program provisions in 40 CFR part 280, the calculation of a facility's underground storage capacity should not include those tanks.

Finally, there is a qualification in this proposed rule that affects the general exclusion for USTs currently regulated under 40 CFR part 280. Although an UST may be exempt from the SPCC requirements, if the facility has non-exempt tanks for which it must prepare a facility SPCC Plan, the location and contents of the exempt tanks must be marked on the facility diagram. All tanks must be marked on the facility diagram so that response personnel are able to easily identify dangers from either fire or explosion, or physical impediments during spill response activities. In addition, facility diagrams may be referred to in the event of design modifications.

B. State Programs

State and local governments are encouraged to supplement the Federal SPCC program using their own authorities. An increasing number of States have established or are considering State-authorized oil pollution prevention programs. Some of the State programs have imposed requirements more stringent than the Federal requirements or have added new requirements, such as tank licensing, tank standards, and location specifications. In addition, many States are currently assessing the adequacy of

related programs or are considering legislation on aboveground oil storage tanks. Compliance with the SPCC program requirement does not alleviate the responsibility of owners and operators of affected facilities to comply with these various State requirements.

C. Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III Integration With Local Emergency Planning

Section 311 of the CWA does not authorize EPA to delegate elements of the SPCC program to the States. The Agency does recognize, however, that local officials, such as fire marshals, frequently inspect the installation of aboveground storage tanks to enforce local codes and are often the first on-scene responders to oil spills. Therefore, to ensure better local involvement and awareness of a potentially harmful spill, the Agency is proposing to require that the facility SPCC Plan include telephone numbers to contact various local authorities. The Agency believes that this contact list will aid in emergency planning and response in the event of an oil spill.

Beyond this, coordination between Federal/State/local agencies is possible through additional authorities—in particular, sections 311 and 312 of the Emergency Planning and Community Right-to-Know Act (EPCRA) or SARA Title III (42 U.S.C. 11021, 11022). These provisions require facilities that are directed to prepare or have available material safety data sheets (MSDSs) under regulations of the Occupational Safety and Health Administration (OSHA), to submit MSDSs and annual inventory data for "hazardous chemicals" to State Emergency Response Committees (SERCs). Local Emergency Planning Committees (LEPCs), and fire departments, if the amount present on site at any time exceeds specified threshold levels. Petroleum products fall within the definition of "hazardous chemicals" under SARA Title III. This reporting requirement affects all types of facilities.

Beyond State-authorized oil pollution prevention programs, the community right-to-know requirements of sections 311 and 312 of SARA Title III can be an effective component of State and local involvement in spill prevention and control activities. Specifically, by receiving MSDSs for all petroleum and other hazardous chemical facilities, the LEPC, using hazard analysis techniques, can establish priorities for addressing hazards in the community. Instead of addressing a regulated population of over 400,000 facilities, as the Federal government does in the SPCC program,

each LEPC can identify and focus on a smaller population of priority local facilities in evaluating preparedness and available response resources and preparing a local emergency response plan, thus supplementing and complementing the Federal SPCC program, and later, local area committee plans. The LEPC, industries, and other interest groups can develop a constructive dialogue that assists in developing prevention techniques and identifying procedures for responding to releases. EPA expects to work closely with States to develop mechanisms for sharing information about facilities and oil spills to improve the protection of navigable waters from discharges of oil, and human health and the environment.

In addition to coordination among Federal, State, and local regulatory entities under SARA Title III, facility owners or operators should ensure that their contingency plans, developed under the SPCC regulations, are compatible and coordinated with local emergency plans, including those developed under SARA Title III. As discussed in Section II of this preamble, although the proposed revisions to the SPCC regulation do not amend materially the contingency planning requirements contained in the existing regulation, EPA will address this issue in depth in the Phase Two modifications to the regulation. To implement the provisions of the OPA, EPA will propose to require certain facilities to prepare and submit a plan for responding, to the maximum extent practicable, to the largest foreseeable discharge in adverse weather conditions. Under the current regulation, facilities are required to implement a contingency plan when it is impracticable to implement certain oil spill prevention practices.

D. Wellhead Protection

Compliance with the requirements of section 311 of the CWA and their facility's SPCC Plan does not alleviate the need for facility owners or operators to be in compliance with State Wellhead Protection (WHP) programs required by section 1428 of the Safe Drinking Water Act (SDWA). Many public water supply wells are located in permeable formations bordering streams or surface waters, which at times recharge these surface waters. These wells may be vulnerable to contamination if an oil spill should occur and, therefore, may require added protection. WHP programs are designed to protect public water supply wells located in these type of settings.

Section 1428 of the SDWA requires that each State adopt and submit to

EPA, a WHP program that, at a minimum:

- Specifies the duties of State agencies, local government entities, and public water supply systems with respect to the development and implementation of programs;
- For each wellhead, determines the wellhead protection area (WHPA), as defined in section 1428(e), based on all reasonably available hydrogeologic information;
- Identifies within each WHPA all potential anthropogenic sources of contaminants that may have adverse effects on human health;
- Describes a program that contains, as appropriate, technical and financial assistance, implementation of control measures, education, training, and demonstration projects to protect the water supply within WHPAs from contaminants;
- Includes contingency plans for the provision of alternative drinking water supplies in the event of contamination;
- Includes a requirement to consider all potential sources of such contaminants within the expected wellhead area of a new water well, which serves a public water supply system; and
- Includes a requirement for public participation in the development of the WHP program.

At this time, EPA has received WHP submittals for review from 30 States. This proposed rule indicates that owners and operators must comply with both the State WHP program and the SPCC regulations. Meeting the requirements of the SPCC program does not necessarily ensure compliance with a State WHP program.

E. Flood-Related Requirements

In § 112.8(b)(6) and § 112.9(c)(3) of the proposed rule, it is recommended, in accordance with Executive Order 11988, Floodplain Management, that the SPCC Plan address precautionary measures for facilities in locations subject to flooding. The National Flood Insurance Program (NFIP) definition of structures includes aboveground oil storage tanks. At a minimum, acceptable mitigation measures are specified in Executive Order 11988 and reference the NFIP's flood loss reduction standards; those standards should be addressed in the SPCC Plan for aboveground storage tanks located in a flood hazard area. Standards for newly constructed or substantially improved aboveground storage tanks are contained in 44 CFR 60.3.

NFIP requires, among other things, that tanks be designed so that the

lowest floor is elevated to or above the base flood level or be designed so that the structure below the base level is watertight with walls substantially impermeable to the passage of water, with structural components having the capability of resisting hydrostatic and hydrodynamic loads, and with the capability to resist effects of buoyancy. For structures that are intended to be made watertight below the base flood level, a Registered Professional Engineer must develop and/or review the structural design, specifications, and plans for construction, and certify that they have been prepared in accordance with accepted standards of practice.

Additionally, the NFIP has specific standards for coastal high hazard areas. Existing tanks located in coastal high hazard areas will be subject to high velocity waters, wave action, and the accompanying potential for severe erosion and scour. Retrofitting measures for tanks should be tailored to the unique hazards of the coast and may include flood protection works, floodproofing, and other modifications to facilities that will reduce the damage potential. In complying with the requirements of the SPCC regulation while developing a SPCC Plan, owners or operators are encouraged to consider and comply with the requirements in 44 CFR 60.3.

F. Occupational Safety and Health Administration

A number of aboveground storage tanks are subject to OSHA requirements under 29 CFR 1910.106. OSHA regulates occupational settings where flammable and combustible liquids are present. Requirements for tanks and ancillary equipment, secondary containment, inspections and testing, and contingency planning are set forth in the OSHA regulations.

OSHA requires tanks to be spaced three to 20 feet apart, and proper venting and fire resistant supports to be installed. API 620 and 2000, the ASME Boiler and Pressure Code, ANSI 31, and UL standards are incorporated into OSHA guidelines. Dikes must be able to contain 100 percent of each tank's capacity, the dike walls must average six feet in height, and earthen dikes must be more than three feet in height and two feet in width at the top. OSHA requires only a one-time test (including hydrostatic testing) for strength and tightness; however, compliance with ASME, API, or UL standards must be marked on all tanks prior to use.

OSHA requirements outlined in 29 CFR 1910.106 are important to good spill prevention programs and should be incorporated into SPCC Plans whenever

doing so represents good engineering practice.

V. Request For Comments

As discussed in section II of this preamble, the Agency is soliciting comments and data on the proposed notification requirements, spill contingency planning needs, the discretionary nature of certain provisions, and the possibility of making certain provisions requirements only for large facilities. Also in Section II of the preamble, EPA requests comments on other practices that are not proposed at this time, including: (1) That owners or operators attach a signed and dated statement to the SPCC Plan upon completion of Plan review; and (2) that owners or operators of onshore facilities other than production facilities describe the design capabilities of their drainage systems in the SPCC Plan. Section III of the preamble contains a request for comments on the advantages and disadvantages associated with the professional engineer being registered in the State in which the facility is located and the additional requirement that the professional engineer not be an employee of the facility or have any direct financial ties to the facility. EPA also solicits comments and data on criteria for defining "permanently closed" tanks.

In addition to the specific requests described above, EPA solicits comments and information on several other issues. One particular issue involves facilities with equipment, such as electrical transformers, that contain significant quantities of oil used for operational purposes. As described in section III.H, the Agency has determined that such equipment is not subject to the provisions addressing bulk storage containers. EPA solicits comments on whether there are examples of other facilities with similar equipment containing oil for ancillary purposes that should not be subject to the proposed bulk storage provisions. Also, EPA solicits comments from owners or operators of facilities with SPCC plans currently in place as to whether they believe existing plans would be adequate to meet the requirements of the regulation, as proposed. In particular the Agency would like comments on this issue from owners and operators of farms, electrical facilities, and facilities storing food oils. Including information as to the extent to which the proposed requirements may impose new compliance costs.

VI. Regulatory Analyses

A. Economic Analyses

EPA has prepared two preliminary economic analyses to support today's proposed rule: an initial economic impact analysis and a supplemental cost/benefit analysis. Both analyses estimate the societal benefits resulting from fewer oil spills, and the economic effects on the SPCC-regulated community on the following proposed revisions: (1) The proposed one-time notification form; (2) The proposed regulatory language modifications; and (3) two new proposed discretionary practices. However, these two analyses differ primarily in assumptions regarding how the regulated community would interpret certain proposed revisions, and, therefore, how the behavior of SPCC-regulated facilities would change.

The initial economic impact analysis developed cost estimates only for the proposed notification form. No costs or benefits were estimated for the proposed changes in regulatory language and the two new proposed discretionary practices because these were assumed not to alter significantly the behavior of the SPCC-regulated community. Based

on the findings of the initial economic impact analysis, the proposed rule would be expected to be non-major because the economic effects would result in estimated costs of approximately \$9.9 million during the first year the rule is in effect and approximately \$200,000 in each subsequent year. The present value of the cost, discounting at 10-percent over a 10-year period, is about \$10 million.

EPA performed an additional analysis to estimate the economic effects of the proposed rule based on alternative expectations about how the regulated community would interpret certain proposed revisions. Specifically, a supplemental cost/benefit analysis was performed to estimate the economic effects of: (1) Certain proposed revisions (described in Section III of the preamble) to the regulatory language based on the assumption that a substantial proportion of the regulated community would need to change their behavior to comply with these provisions; and (2) two new proposed discretionary provisions (described in Section II.C of the preamble) based on the assumption that a substantial proportion of the regulated community would need to change their behavior as

a result of these new requirements. The estimated cost and benefits of the proposed notification form as calculated in the initial analysis also were presented. Based on this supplemental analysis, the proposed rule would be a major rule as defined by Executive Order No. 12291, because the annualized estimated cost (based on a 10-year time horizon and a 10-percent discount rate) is about \$145 million. Both the "Economic Impact Analysis of the Proposed Revisions to the Oil Pollution Prevention Regulation" and the "Supplemental Cost/Benefit Analysis of the Proposed Revisions to the Oil Pollution Prevention Regulation" are available for inspection as part of the administrative record for this proposed regulation (Docket Number SPCC-1P). This record is available to the public in room M2427 at the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. The estimated cost and benefits of the three groups of proposed revisions are summarized below.

The present and annualized value of the cost and benefit estimates of the proposed notification form, based on a 10-year time horizon and a 10-percent discount rate, are presented in Table 1.

TABLE 1.—PROPOSED NOTIFICATION PROVISION

	Benefits ¹	Costs	Net benefits
Present Value	\$26 million	\$10 million	\$16 million.
Annualized	\$4.2 million	\$1.6 million	\$2.6 million.

¹ The monetized benefits as a result of the proposed notification form were estimated in the supplemental cost/benefit analysis. The methodology used to estimate these benefits is included in appendix 2-A and 2-B of the Supplemental Cost/Benefit Analysis of the Proposed Revisions to the Oil Pollution Prevention Regulation. EPA invites comment on both the methodology used and the results obtained, especially information which might indicate that substantial benefits or costs have been included.

Tables 2 and 3 show the present and annualized value of the cost and benefit estimates of the proposed regulatory language changes and the two new

proposed discretionary provisions. These estimates were developed in the supplemental cost/benefit analysis, based on assumptions about how the

behavior of the regulated community would change as a result of interpreting these proposed revisions as substantive changes in required conduct.

TABLE 2.—PROPOSED CHANGES IN REGULATORY LANGUAGE

	Benefits	Costs	Net benefits
Present Value	\$1,000 million	\$441 million	\$559 million.
Annualized	\$162.8 million	\$71.8 million	\$91.0 million.

The cost estimates for the proposed changes in regulatory language presented above are based on a detailed analysis of six of approximately 60 changes in regulatory language ("should" to "shall" changes). These major provisions are expected to generate the largest total costs and,

therefore, are expected to capture virtually all compliance cost for all SPCC-regulated facilities to comply with all the "should" to "shall" regulatory changes. The methodology used to estimate these costs is included in appendix 1-C of the Supplemental Cost/Benefit Analysis of the Proposed

Revisions to the Oil Pollution Prevention Regulation. EPA invites comment on both the methodology used and the results obtained, especially information which might indicate that substantial benefits or costs have been included.

TABLE 3.—PROPOSED DISCRETIONARY PROVISIONS ¹

	Benefits	Costs	Net benefits
Upper Bound:			
Present value	\$495 million	\$441 million	\$54 million.
Annualized	\$80.5 million	\$71.8 million	\$8.7 million.
Lower Bound:			
Present Value	\$248 million	\$441 million	\$ - 193 million.
Annualized	\$40.4 million	\$71.8 million	\$ - 31.4 million.

¹ While upper and lower bound monetary benefit estimates were developed in the supplemental cost/benefit analysis, upper and lower bound cost estimates for these two new proposed discretionary provisions were not developed in the initial economic analysis.

In addition, EPA is soliciting comments on two other practices that are not included in today's proposed revisions but are described in section II.C of this preamble. Specifically, these two provisions are: (1) A statement by the facility owner or operator that the SPCC Plan review has occurred; and (2) a statement to be included in the SPCC Plan that addresses the design capabilities of a facility's drainage system to control oil spills or leaks. By recommending that facility owners or operators state that a triennial review has been performed, EPA would expect to increase the degree to which upper management takes an active role to ensure that the Oil Pollution Prevention regulation is fully implemented at the facility. Increased managerial oversight may improve the overall quality and effectiveness of SPCC Plans, thereby reducing the number and severity of oil spills from SPCC-regulated facilities. Similarly, by including in the Plan a written statement indicating the adequacy of the facility's drainage system in handling leaking oil, those facility personnel responsible for drafting this statement could be encouraged to take a more active role to ensure that these existing systems are adequately designed to control oil leaks. While cost estimates were developed for these two practices, monetized benefit estimates were not developed because these two provisions involve paperwork activities and no data or case studies are available to adequately analyze the degree to which their implementation will lead to avoided oil spills. EPA requests data and analysis indicating the extent to which these recommendations would further improve the effectiveness of the Oil Pollution Prevention regulation, as well as data and analysis concerning appropriate analytical methods to estimate these benefits and costs, especially information indicating how the Agency could improve its analytical methods prior to promulgation of the final rule. The present value of the cost of these two provisions is estimated at \$128 million.

In summary, the present value of the cost of the proposed rule based on the results of the supplemental cost/benefit analysis for the proposed notification form, the proposed changes in regulatory language, and the two new proposed discretionary provisions is estimated at about \$892 million, while the present value of the monetized benefits range from \$1.3 billion to \$1.5 billion. Based on these preliminary analyses, the present value of the monetized benefit estimate exceeds the cost by about \$382 to \$539 million. In addition, quantified estimates of the benefits associated with the proposed revisions analyzed include only two benefits associated with reducing the number of oil spills: avoided cleanup costs and the value of the lost product (i.e., the value of the product in commerce prior to being lost in a spill). In addition, society is expected to gain other benefits in the form of avoided losses to commercial and recreational fishing and other resource damages, avoided lost recreational opportunities including beach use, boating, and waterfowl hunting, avoided damage to private property, and avoided public health risks, among others. EPA invites comments on the methodology used to estimate these benefits and costs, especially information indicating how the Agency could improve its analytical method prior to promulgation of the final rule.

B. Executive Order No. 12291

Executive Order (E.O.) No. 12291 requires that regulations be classified as major or non-major for purposes of review by the Office of Management and Budget (OMB). According to E.O. No. 12291, major rules are regulations that are likely to result in:

- (1) An annual effect on the economy of \$100 million or more; or
- (2) A major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or
- (3) Significant adverse effects on competition employment, investment, productivity, innovation, or on the

ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets. Based on the assumption that regulated parties interpret both the proposed changes in regulatory language and the two new proposed recommendations as requiring substantive changes in conduct, the results of economic analyses performed by the Agency indicate that the proposed rule is expected to be major rule because the annual estimated costs would exceed \$100 million. Specifically, the upper bound annualized value of the cost of the proposed rule is estimated to be \$145 million and the annualized value of the benefit estimate is expected to range from \$207 million to \$248 million. This proposed rule has been submitted to OMB for review as required by E.O. No. 12291.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 requires that a Regulatory Flexibility Analysis be performed for all rules that are likely to have a "significant impact on a substantial number of small entities." To determine whether a Regulatory Flexibility Analysis was necessary for this proposed rule, a preliminary analysis was conducted. The results of Regulations, Chapter 6, January 1991, available for inspection in Room M2427 at the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460). Therefore, because this proposed rule is not expected to have a significant impact on small entities, EPA certifies that no Regulatory Flexibility Analysis is necessary.

D. Paperwork Reduction Act

The information collection requirements in this proposed rule will be submitted for approval to OMB as required by the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. A draft Information Collection Request (ICR) document has been prepared by EPA (ICR No. 1548.01) and a copy may be obtained from Sandy Farmer, Information Policy Branch (PM-223Y).

U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 or by calling 1-202-260-2740.

Public reporting burden for the proposed notification form affecting all SPCC-regulated facilities is estimated to range from one half hour to 1.5 hours per response, and the reporting burden for the recommended recordkeeping provision affecting medium and large SPCC-regulated facilities is estimated to range from 5 hours to 10 hours annually. Overall, the public reporting burden for both proposed provisions is estimated to range from one half an hour to 11.5 hours with an average reporting burden of approximately 1.9 hours per response. These reporting burden estimates include the time required for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, storing the data, estimating the information required, and completing and reviewing the collection on information.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA." The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

List of Subjects in 40 CFR Part 112

Fire prevention, Flammable materials, Materials handling and storage, Oil pollution, Petroleum, Tanks, Water pollution control, Water resources.

Dated: October 3, 1991.

William K. Reilly,
Administrator.

For the reasons set out in the preamble, title 40, chapter I, part 112 of the Code of Federal Regulations, is proposed to be amended as set forth below.

1. Part 112 is revised to read as follows:

PART 112—OIL POLLUTION PREVENTION

Sec.

- 112.1 General applicability and notification.
- 112.2 Definitions.
- 112.3 Requirement to prepare and implement a Spill Prevention, Control, and Countermeasures Plan.

Sec.

- 112.4 Amendment of Spill Prevention, Control, and Countermeasures Plan by Regional Administrator.
- 112.5 Amendment of Spill Prevention, Control, and Countermeasures Plan by owners or operators.
- 112.6 Civil penalties for violation of the Oil Pollution Prevention regulation.
- 112.7 Spill Prevention, Control, and Countermeasures Plan general requirements.
- 112.8 Spill Prevention, Control, and Countermeasures Plan requirements for onshore facilities (excluding production facilities).
- 112.9 Spill Prevention, Control, and Countermeasures Plan requirements for onshore oil production facilities.
- 112.10 Spill Prevention, Control, and Countermeasures Plan requirements for onshore oil drilling and workover facilities.
- 112.11 Spill Prevention, Control, and Countermeasures Plan requirements for offshore oil drilling, production, or workover facilities.

Appendix A—Memorandum of Understanding Between the Secretary of Transportation and the Administrator of the Environmental Protection Agency. Section II—Definitions

Appendix B—Notification Form for Oil Storage Tanks

Authority: 33 U.S.C. 1321 and 1361; E.O. 11735, 38 FR 21243, 3 CFR 1971-1975 Comp., p. 791.

PART 112—OIL POLLUTION PREVENTION

§ 112.1 General applicability and notification.

(a) This part establishes procedures, methods, equipment, and other requirements to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable waters of the United States or adjoining shorelines, or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or that may affect natural resources, belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act).

(b) Except as provided in paragraph (d) of this section:

(1) This part applies to owners or operators of non-transportation-related onshore and offshore facilities engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, or consuming oil and oil products, which due to their location could reasonably be expected to discharge oil in quantities that may be harmful, as described in part 110 of this

chapter, into or upon the navigable waters of the United States or adjoining shorelines, or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act).

(2) This part applies to facilities having containers that are used for standby storage, for seasonal storage, or for temporary storage, or not otherwise considered "permanently closed" under § 112.2(o).

(3) This part applies to facilities having "bunkered tanks" and "partially buried tanks" as defined in § 112.2(c) and § 112.2(n), respectively, as well as tanks in subterranean vaults, all of which are considered aboveground storage containers for the purposes of this part.

(c) As provided in section 313 of the Clean Water Act (CWA), departments, agencies, and instrumentalities of the Federal government are subject to these regulations to the same extent as any person, except for the provisions of § 112.6.

(d) Except as provided in paragraph (e) of this section and the first sentence of § 112.7(a)(3), this part does not apply to:

(1) Facilities, equipment, or operations that are not subject to the jurisdiction of the Environmental Protection Agency (EPA) under section 311(j)(1)(C) of the CWA, as follows:

(i) Onshore and offshore facilities that, due to their location, could not reasonably be expected to discharge oil as described in § 112.1(b)(1) of this part. This determination shall be based solely upon a consideration of the geographical and location aspects of the facility (such as proximity to navigable waters or adjoining shorelines, land contour, drainage, etc.), and shall exclude consideration of manmade features such as dikes, equipment or other structures, which may serve to restrain, hinder, contain, or otherwise prevent a discharge of oil from reaching navigable waters of the United States or adjoining shorelines; and

(ii) Equipment or operations of vessels or transportation-related onshore and offshore facilities that are subject to authority and control of the Department of Transportation, as defined in the Memorandum of Understanding between the Secretary of Transportation

and the EPA Administrator, dated November 24, 1971, 36 FR 24080.

(2) Those facilities that meet both of the following requirements:

(i) The underground storage capacity of the facility is 42,000 gallons or less of oil. For purposes of this exemption, the underground storage capacity of a facility does not include the capacity of underground storage tanks, as defined in § 112.2(v), that are currently subject to the technical requirements of 40 CFR part 280. The underground storage capacity of a facility does not include the capacity of underground storage tanks that are "permanently closed," as defined in § 112.2(o).

(ii) The aboveground storage capacity of the facility is 1,320 gallons or less of oil, provided no single container has capacity in excess of 660 gallons. For purposes of this exemption, the aboveground storage capacity of a facility does not include the capacity of tanks that are underground storage tanks as defined in § 112.2(v) or that are "permanently closed" as defined in § 112.2(o).

(3) Offshore oil drilling, production, or workover facilities that are subject to the Operating Orders, notices, and regulations of the Minerals Management Service.

(4) Underground storage tanks, as defined in § 112.2(v), at any facility, where such tanks are subject to the technical requirements of 40 CFR part 280.

(e) Notification requirements. (1) Notification must be provided by the owner or operator of facilities that are subject to EPA jurisdiction under the CWA and have total aboveground storage capacities greater than 1,320 gallons of oil or aboveground storage in a single container greater than 660 gallons of oil. The owner or operator of these facilities must submit a written notice to EPA by (*Insert date two months after date of publication of the final rule*). This notice is required on a one-time basis for current facility owners or operators. Owners or operators of facilities that begin operations or who increase storage capacity so as to comply under the jurisdiction of this rule after (*Insert date 60 days after date of publication of the final rule*) also must notify the Regional Administrator before beginning facility operations.

(2) The written notice shall include the following: (i) The name of the owner and/or operator of the facility;

(ii) The name, address, and zip code of the facility; and

(iii) A listing of the total number and size of aboveground tanks at the facility, total aboveground storage capacity of

the facility, distance to the nearest navigable waters, and where applicable and available, the facility's primary Dun & Bradstreet number and the primary Standard Industrial Classification.

(3) The notice does not require information concerning the number and size of underground storage tanks defined in § 112.2(v).

(f) This part provides for the preparation and implementation of Spill Prevention, Control, and Countermeasures (SPCC) Plans prepared in accordance with §§ 112.7, 112.8, 112.9, 112.10, and 112.11 designed to complement existing laws, regulations, rules, standards, policies, and procedures pertaining to safety standards, fire prevention, and pollution prevention rules, to form a comprehensive balanced Federal/State spill prevention program to minimize the potential for oil discharges. The SPCC Plan shall address all relevant spill prevention, control, and countermeasures necessary at the specific facility. Compliance with this part does not in any way relieve the owner or operator of an onshore or an offshore facility from compliance with other Federal, State, or local laws.

§ 112.2 Definitions.

For the purposes of this part: (a) *Breakout tank* means a container that is part of a pipeline facility regulated by the Department of Transportation and is used solely for the purpose of compensating for pressure surges or to control and maintain the flow of oil through pipelines. Such tanks are frequently in-line.

(b) *Bulk storage tank* means any container used to store oil. These tanks are used for purposes including, but not limited to, the storage of oil prior to use, while being used, or prior to further distribution in commerce.

(c) *Bunkered tank* means a storage tank constructed or placed in the ground by cutting the earth and recovering in a manner whereby the tank breaks the natural grade of the land.

(d) *Contiguous zone* means the zone established by the United States under Article 24 of the Convention of the Territorial Sea and Contiguous Zone, that is contiguous to the territorial sea and that extends nine miles seaward from the outer limit of the territorial area.

(e) *Discharge* includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping, but excludes discharges in compliance with a permit under section 402 of the CWA; discharges resulting from circumstances identified, reviewed, and made a part of the public record

with respect to a permit issued or modified under section 402 of the CWA, and subject to a condition in such permit; or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems. For purposes of this part, the term "discharge" shall not include any discharge of oil that is authorized by a permit issued pursuant to section 13 of the River and Harbor Act of 1899 (30 Stat. 1121, 33 U.S.C. 407).

(f) *Facility* means any mobile or fixed, onshore or offshore building, structure, installation, equipment, pipe, or pipeline used in oil well drilling operations, oil production, oil refining, oil storage, and waste treatment, as described in Appendix A to this part. The boundaries of a facility may depend on several site-specific factors, including, but not limited to, the ownership or operation of buildings, structures, and equipment on the same site and the types of activity at the site.

(g) *Navigable waters* means the waters of the United States, including the territorial seas. The term includes:

(1) All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide;

(2) All interstate waters, including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:

(i) That are or could be used by interstate or foreign travelers for recreational or other purposes; or,

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or,

(iii) That are used or could be used for industrial purposes by industries in interstate commerce;

(4) All impoundments of waters otherwise defined as waters of the United States under this section;

(5) Tributaries of waters identified in paragraphs (g)(1) through (4) of this section;

(6) The territorial sea; and

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (g)(1) through (6) of this section.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

(h) *Offshore facility* means any facility of any kind (other than a vessel or public vessel) located in, on, or under any of the navigable waters of the United States, and any facility of any kind that is subject to the jurisdiction of the United States and is located in, on, or under any other waters.

(i) *Oil* means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.

(j) *Oil drilling, production, or workover facilities (offshore)* may include all drilling or workover equipment, wells, flowlines, gathering lines, platforms, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(k) *Oil production facilities (onshore)* may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(l) *Onshore facility* means any facility of any kind located in, on, or under any land within the United States, other than submerged lands.

(m) *Owner or operator* means any person owning or operating an onshore facility or an offshore facility, and in the case of any abandoned offshore facility, the person who owned or operated or maintained such facility immediately prior to such abandonment.

(n) *Partially buried tank* means a storage tank that is partially inserted or constructed in the ground, but not fully covered with earth.

(o) *Permanently closed* is any tank or facility that has been closed in the following manner:

(1) All liquid and sludge must be removed from each tank and connecting lines. Any waste products removed must be disposed of in accordance with all applicable State and Federal requirements.

(2) Each tank must be rendered free of explosive vapor by testing the tank with a combustible gas indicator, or explosimeter, or other type of atmospheric monitoring instrument in order to determine the lower explosive limit (LEL). The EPA and Occupational Safety and Health Administration standard for a hazardous atmosphere, based on extensive industrial

experience, is one that contains a concentration of combustible gas, vapor, or dust greater than 25 percent of the LEL of the material. Provisions must be made to eliminate the danger imposed by the tank as a safety hazard due to the presence of flammable vapors. Facilities are to ensure that closure is permanent, and that the tank vapors remain below the LEL.

(3) All connecting lines must be blanked off, and valves are to be closed and locked. Conspicuous signs are to be posted on the tank warning that it is a permanently closed tank and that vapors above the LEL are not present.

(p) *Person* includes an individual, firm, corporation, association, or a partnership.

(q) *Regional Administrator* means the EPA Regional Administrator or a designee of the Regional Administrator, in and for the Region in which the facility is located.

(r) *SPCC Plan or Plan* means the document required by § 112.3 of this part that details the equipment, manpower, procedures, and steps to prevent, control, and provide adequate countermeasures to an oil spill. The Plan is a written description of the facility's compliance with the procedures in this part.

(s) *Spill event* means a discharge of oil as described in § 112.1(b)(1) of this part.

(t) *Storage capacity* of a tank or container, for purposes of determining the applicability of this part, means the total capacity of the tank or container, whether the tank or container is filled with oil or a mixture of oil and other substances.

(u) *Transportation-related and non-transportation-related*, as applied to an onshore or offshore facility, are defined in Appendix A of this part, the Memorandum of Understanding between the Secretary of Transportation and the EPA Administrator, dated November 24, 1971, 36 FR 24080.

(v) *Underground storage tank* means any tank completely covered with earth. Tanks in subterranean vaults, bunkered tanks, or partially buried tanks are considered aboveground storage containers for the purpose of this part.

(w) *United States* means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, Guam, American Samoa, the U.S. Virgin Islands, and the Pacific Island Governments.

(x) *Vessel* means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water, other than a public vessel.

(y) *Wetlands* means those areas that are inundated or saturated by surface or ground water at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include playa lakes, swamps, marshes, bogs, and similar areas such as sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and natural ponds.

§ 112.3 Requirement to prepare and implement a Spill Prevention, Control, and Countermeasures Plan.

(a) Owners or operators of onshore and offshore facilities in operation on or before *(Insert date 60 days after date of publication of the final rule)* that have discharged or, due to their location, could reasonably be expected to discharge oil as described in § 112.1(b)(1) of this part, shall maintain a prepared and fully implemented facility SPCC Plan in writing and in accordance with § 112.7, and in accordance with §§ 112.8, 112.9, 112.10, and 112.11 as applicable to the facility.

(b) Owners or operators of onshore and offshore facilities that become operational after *(Insert date 60 days after date of publication of the final rule)*, and could reasonably be expected to discharge oil as described in § 112.1(b)(1) of this part, shall prepare a facility SPCC Plan in accordance with § 112.7, and in accordance with any of the following sections that apply to the facility: §§ 112.8, 112.9, 112.10, and 112.11. The Plan shall be prepared and fully implemented before a facility begins operations, unless an extension has been granted by the Regional Administrator as provided for in paragraph (f) of this section.

(c) Owners or operators of onshore and offshore mobile or portable facilities, such as onshore drilling or workover rigs, barge mounted offshore drilling or workover rigs, and portable fueling facilities shall prepare, implement, and maintain a facility SPCC Plan as required by paragraph (a), (b), and (d) of this section. The owners or operators of such facility need not prepare a new Plan each time the facility is moved to a new site. The Plan may be a general plan, prepared in accordance with § 112.7, and in accordance with §§ 112.10 and 112.11 where applicable to the facility, using good engineering practice. When the mobile or portable facility is moved, it must be located and installed using the spill prevention practices outlined in the Plan for the facility. No mobile or

portable facility subject to this regulation shall operate unless the Plan has been implemented. The Plan shall only apply while the facility is in a fixed (non-transportation) operating mode.

(d) No SPCC Plan shall be effective to satisfy the requirements of this part unless it has been reviewed by a Registered Professional Engineer and certified by the Registered Professional Engineer. By means of this certification, the Engineer shall attest: (1) That the Engineer is familiar with the requirements of this part; (2) that the Engineer has visited and examined the facility; (3) that the Plan has been prepared in accordance with good engineering practice and with the requirements of this part; (4) that required testing has been completed; and, (5) that the Plan is adequate for the facility. Such certification shall in no way relieve the owner or operator of an onshore or offshore facility of the duty to prepare and fully implement such Plan in accordance with § 112.7; in accordance with §§ 112.8, 112.9, 112.10, and 112.11 where applicable; and as required by paragraphs (a), (b), and (c) of this section.

(e) Owners and operators of a facility for which a facility SPCC Plan is required pursuant to paragraph (a), (b), or (c) of this section shall:

(1) Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or at the nearest field office if the facility is not so attended; and

(2) Have the Plan available for the Regional Administrator or authorized representative for on-site review during normal working hours

(f) Extensions of time.

(1) The Regional Administrator may authorize an extension of time for the preparation and full implementation of a Plan beyond the time permitted for the preparation and implementation of a Plan pursuant to paragraph (b) of this section where it is determined that the owner or operator of a facility subject to paragraph (b) of this section cannot fully comply with the requirements of this part as a result of either nonavailability of qualified personnel, or delays in construction or equipment delivery beyond the control and without the fault of such owner or operator or their respective agents or employees.

(2) Any owner or operator seeking an extension of time pursuant to paragraph (f)(1) of this section may submit a letter of request to the Regional Administrator. Such letter shall include:

(i) A copy of the Plan, if completed;

(ii) A full explanation of the cause for any such delay and the specific aspects of the Plan affected by the delay;

(iii) A full discussion of actions being taken or contemplated to minimize or mitigate such delay;

(iv) A proposed time schedule for the implementation of any corrective actions being taken or contemplated, including interim dates for completion of tests or studies, installation and operation of any necessary equipment, or other preventive measures. In addition, such owner or operator may present additional oral or written statements in support of the letter of request.

(3) The submission of a letter of request for extension of time pursuant to paragraph (f)(2) of this section shall in no way relieve the owner or operator from the obligation to comply with the requirements of § 112.3(b). Where an extension of time is authorized by the Regional Administrator for particular equipment or other specific aspects of the Plan, such extension shall in no way affect the owner's or operator's obligation to comply with the requirements of § 112.3(b) with respect to other equipment or other specific aspects of the Plan for which an extension has not been expressly authorized.

§ 112.4 Amendment of Spill Prevention, Control, and Countermeasures Plan by Regional Administrator.

(a) Notwithstanding compliance with § 112.3, whenever a facility subject to § 112.3(a), (b) or (c) has discharged, in a single spill event, more than 1,000 U.S. gallons of oil as described in § 112.1(a), or discharged oil as described in § 112.1(b)(1) in two spill events occurring within any consecutive twelve month period, the owner or operator of such facility shall submit to the Regional Administrator, within 60 days from the time such facility becomes subject to this section, the following:

(1) Name of the facility;

(2) Name(s) of the owner or operator of the facility;

(3) Location of the facility;

(4) Name and address of the registered agent of the owner or operator, if any;

(5) Date and year of initial facility operation;

(6) Maximum storage or handling capacity of the facility and normal daily throughput;

(7) Description of the facility, including maps, flow diagrams, and topographical maps;

(8) A complete copy of the Plan with any amendments;

(9) The cause(s) of such spill, including a failure analysis of the system or subsystem in which the failure occurred;

(10) Exactly what and how much was spilled;

(11) The corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements;

(12) Additional preventive measures taken or contemplated to minimize the possibility of recurrence; and

(13) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or spill event.

(b) Section 112.4 shall not apply until the expiration of the time permitted for the preparation and implementation of the Plan pursuant to § 112.3(f).

(c) The owner or operator shall send to the agency in charge of oil pollution control activities in the State in which the facility is located a complete copy of all information provided to the Regional Administrator pursuant to paragraph (a) of this section. Upon receipt of such information such State agency may conduct a review and make recommendations to the Regional Administrator as to further procedures, methods, equipment, and other requirements for equipment necessary to prevent and to contain discharges of oil from such facility.

(d) After review of the SPCC Plan for a facility subject to paragraph (a) of this section, together with all other information submitted by the owner or operator of such facility, and by the State agency under paragraph (c) of this section, the Regional Administrator may require the owner or operator of such facility to amend the Plan if she/he finds that the Plan does not meet the requirements of this part or that amendment of the Plan is necessary to prevent and to contain discharges of oil from such facility. After review of the materials submitted by the owner or operator of a facility as required in § 112.7(d), the Regional Administrator may approve the Plan or require amendment of the Plan.

(e) When the Regional Administrator proposes to require an amendment to the SPCC Plan, the facility operator shall be notified by certified mail addressed to, or by personal delivery to, the facility owner or operator, that the Regional Administrator proposes to require an amendment to the Plan, and the terms of such amendment shall be specified. If the facility owner or operator is a corporation, a copy of such notice also shall be mailed to the registered agent, if any, of such corporation in the State where such facility is located. Within 30 days from receipt of such notice, the facility owner or operator may submit written information, views, and

arguments on the amendment. After considering all relevant material presented, the Regional Administrator shall notify the facility owner or operator of any amendment required or shall rescind the notice. The amendment required by the Regional Administrator shall become part of the Plan 30 days after such notice, unless the Regional Administrator, for good cause, specifies another effective date. The owner or operator of the facility shall implement the amendment of the Plan as soon as possible, but not later than six months after the amendment becomes part of the Plan, unless the Regional Administrator specifies another date.

(f) An owner or operator may appeal a decision made by the Regional Administrator requiring an amendment to the SPCC Plan. The appeal shall be made to the EPA Administrator and must be made in writing within 30 days of receipt of the notice from the Regional Administrator requiring the amendment. A complete copy of the appeal must be sent to the Regional Administrator at the time the appeal is made. The appeal shall contain a clear and concise statement of the issues and points of fact in the case. It also may contain additional information from the owner or operator, or from any other person. The EPA Administrator or her/his designee may request additional information from the owner or operator, or from any other person. The EPA Administrator or her/his designee shall render a decision within 60 days of receiving the appeal and shall notify the owner or operator of the decision.

§ 112.5 Amendment of Spill Prevention, Control, and Countermeasures Plan by owners or operators.

(a) Owners or operators of facilities subject to § 112.3 (a), (b), or (c) shall amend the SPCC Plan for such facility in accordance with § 112.7, and with §§ 112.8, 112.9, 112.10, and 112.11 where applicable, when there is a change in facility design, construction, operation, or maintenance that materially affects the facility's potential to discharge oil as described in § 112.1(b)(1) of this part. Changes requiring amendment of the Plan include, but are not limited to: Commission or decommission of tanks; replacement, reconstruction, or movement of tanks; reconstruction, replacement, or installation of piping systems; construction or demolition that might alter secondary containment structures; or revision of standard operation or maintenance procedures at a facility.

(b) Notwithstanding compliance with paragraph (a) of this section, owners and operators of facilities subject to

§ 112.3 (a), (b), or (c) shall complete a review and evaluation of their respective Plans at least once every three years from the date such facility becomes subject to this part. As a result of this review and evaluation, the owner or operator shall amend the SPCC Plan within six months of the review to include more effective prevention and control technology if: (1) Such technology will significantly reduce the likelihood of a spill event from the facility; and (2) such technology has been field-proven at the time of the review.

(c) Except for changes to the contact list required by § 112.7(a)(3)(ix), no amendment to a Plan shall be effective to satisfy the requirements of this section unless it has been certified by a Registered Professional Engineer in accordance with § 112.3(d).

§ 112.6 Civil penalties for violation of the Oil Pollution Prevention regulation.

Owners or operators of facilities subject to § 112.3 (a), (b), or (c) who violate the requirements of part 112 by failing or refusing to comply with any of the provisions of §§ 112.1(e), 112.3, 112.4, 112.5, 112.7, 112.8, 112.9, 112.10, or 112.11 shall be liable for a civil penalty in accordance with the CWA, as amended by the OPA of 1990.

§ 112.7 Spill Prevention, Control, and Countermeasures Plan general requirements.

(a) The SPCC Plan shall be a carefully thought-out written description of the facility's compliance with the requirements of all applicable elements of §§ 112.7, 112.8, 112.9, 112.10, and 112.11 and shall be prepared in accordance with good engineering practice. The Plan shall have the full approval of management at a level with authority to commit the necessary resources to fully implement the Plan.

(1) The complete Plan shall follow the sequence outlined below, and include a discussion of the facility's conformance with the requirements listed.

(2) The Plan may deviate from the requirements in paragraph (c) of this section and §§ 112.8, 112.9, 112.10, and 112.11, where applicable to a specific facility provided equivalent protection is provided by some other means of spill prevention, control, or countermeasures. Where the Plan does not conform to the applicable requirements of paragraph (c) of this section or §§ 112.8, 112.9, 112.10, and 112.11, the Plan shall state the reasons for non-conformance and describe in detail alternate methods and how equivalent protection will be achieved. The Regional Administrator can overrule the waiver/equivalent

alternative measure if it is not adequately protective.

(3) The complete Plan must describe the facility's physical plant and include a facility diagram, which must have the location and contents of all tanks marked. The Plan must also address the following:

- (i) Unit-by-unit storage capacity;
- (ii) Type and quantity of oil stored;
- (iii) Estimates of quantity of oils potentially discharged;
- (iv) Possible spill pathways;
- (v) Spill prevention measures, including procedures for routine handling of products (loading, unloading, and facility transfers, etc.);
- (vi) Spill controls such as secondary containment around tanks and other structures, equipment, and procedures for the control of a discharge;
- (vii) Spill countermeasures for spill discovery, response, and cleanup (facility's capability and those that might be required of a contractor);
- (viii) Disposal of recovered materials in accordance with applicable legal requirements; and
- (ix) Contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors, fire departments, Local Emergency Planning Committee, State Emergency Response Commission, and downstream water suppliers who must be contacted in case of a discharge to navigable waters.

(4) Documentation in the Plan shall enable a person reporting a spill to provide information on the exact address and phone number of the facility, the spill date and time, the type of material spilled, estimates of the total quantity spilled, estimates of the quantity spilled into navigable water, the source of the spill, a description of the affected medium, the cause of the spill, any damages or injuries caused by the spill, actions being used to stop, remove, and mitigate the effects of the discharge, whether an evacuation may be needed, and the names of individuals and/or organizations who have also been contacted.

(5) Portions of the Plan describing procedures to be used in emergency circumstances shall be organized in a manner to make them readily useable in an emergency with appropriate supporting material included as appendices.

(b) Experience has indicated that a reasonable potential for oil discharge from tank overflow, rupture, or leakage, and faulty ancillary equipment exists. Therefore, the Plan shall include a prediction of the direction, rate of flow, and total quantity of oil that could be

discharged from the facility as a result of each major type of failure.

(c) Appropriate containment and/or drainage control structures or equipment to prevent discharged oil from reaching a navigable water course shall be provided. The entire containment system, including walls and floor, shall be impervious to oil for 72 hours and shall be constructed so that any discharge from a primary containment system, such as a tank or pipe, will not permeate, drain, infiltrate, or otherwise escape to surface waters before cleanup occurs. One or more of the following prevention systems or its equivalent shall be used as a minimum:

(1) Onshore facilities:

(i) Dikes, berms, or retaining walls;

(ii) Curbing;

(iii) Culverting, gutters, or other drainage systems;

(iv) Weirs, booms, or other barriers;

(v) Spill diversion ponds;

(vi) Retention ponds; or

(vii) Sorbent materials

(2) Offshore facilities:

(i) Curbing, drip pans; or

(ii) Sumps and collection systems.

(d) When it is determined that the installation of structures or equipment listed in § 112.7(c) to prevent discharged oil from reaching the navigable waters is not practicable from any onshore or offshore facility, the owner or operator shall clearly demonstrate such impracticability; conduct integrity testing of tanks every five years at a minimum; conduct integrity and leak testing of the valves and piping every year at a minimum; and provide the Regional Administrator for approval under § 112.4(d) the following:

(1) An oil spill contingency plan that must include, at a minimum, a description of response plans, personnel needs, and methods of mechanical containment; steps to be taken for removal of spilled oil; access and availability of sorbents, booms, and other equipment; and such other information as required by the Regional Administrator. The oil spill contingency plan is part of the Plan and, therefore, is subject to review and approval by the Regional Administrator. The oil spill contingency plan shall be a stand-alone section of the SPCC Plan. Oil spill contingency plans provided to satisfy the provisions of this paragraph shall not rely in whole or in part upon the use of dispersants and other chemicals listed under subpart J of the National Contingency Plan (NCP) (40 CFR part 300) unless the Regional Administrator explicitly approves the inclusion of such methods in the contingency plan. A separate and additional approval is required by subpart J of the NCP for the

use of such dispersants and other chemicals.

(2) A written commitment of manpower, equipment, and materials required to control expeditiously and remove any quantity of oil that may be discharged. It is recommended that the owner or operator consider factors such as financial capability in making a written commitment of manpower, equipment, and materials.

(e) *Inspection, tests, and records.* Inspections and tests required by this part shall be in accordance with written procedures developed for the facility by the owner or operator or the certifying engineer. These written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, shall be maintained with the SPCC Plan and maintained for a period of five years.

(f) *Personnel, training, and spill prevention procedures.* (1) Owners or operators are responsible for properly instructing their personnel in the operation and maintenance of equipment to prevent discharges of oil and in applicable pollution control laws, rules, and regulations. Training exercises should be conducted at least yearly for all personnel, and training should be given to new employees within one week of beginning work.

(2) Each applicable facility shall have a designated person who is accountable for oil spill prevention and who reports to line management.

(3) Owners or operators shall schedule and conduct spill prevention briefings for their operating personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. Such briefings shall highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures.

(g) *Security (excluding oil production facilities).*

(1) It is recommended that all plants handling, processing, and storing oil be fully fenced and when fenced, entrance gates shall be locked and/or guarded when the plant is not in production or is unattended.

(2) The master flow and drain valves and any other valves permitting direct outward flow of the tank's contents to the surface shall have adequate security measures to ensure that they remain in the closed position when in non-operating or non-standby status.

(3) The starter control on all pumps shall be locked in the "off" position and be located at a site accessible only to authorized personnel when the pumps are in a non-operating or non-standby status.

(4) The loading/unloading connections of oil piping shall be securely capped or blank-flanged when not in service or when in standby service for a period of six months or more. This security practice also shall apply to piping that is emptied of liquid content either by draining or by inert gas pressure.

(5) It is recommended that facility lighting be commensurate with the type and location of the facility. Consideration shall be given to: (i) Discovery of spills occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (the general public, local police, etc.) and (ii) prevention of spills occurring through acts of vandalism.

(h) *Facility tank car and tank truck loading/unloading rack (excluding offshore facilities).* (1) Tank car and tank truck loading/unloading procedures shall meet the minimum requirements and regulations established by State or Federal law.

(2) Where rack area drainage does not flow into a catchment basin or treatment facility designed to handle spills, a quick drainage system shall be used for tank truck loading and unloading areas. The containment system shall be designed to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded in the plant.

(3) An interlocked warning light or physical barrier system, or warning signs, shall be provided in loading/unloading areas to prevent vehicular departure before complete disconnection of flexible or fixed transfer lines.

(4) Prior to filling and departure of any tank car or tank truck, the lower-most drain and all outlets of such vehicles shall be closely examined for leakage, and, if necessary, tightened, adjusted, or replaced to prevent liquid leakage while in transit.

(i) In addition to the minimal prevention standards listed under § 112.7 (c), (e), (f), (g), and (h), sections of the Plan shall include a complete discussion of conformance with the applicable requirements and other effective spill prevention and containment procedures listed in §§ 112.8, 112.9, 112.10, and 112.11 (or, if more stringent, with State rules, regulations, and guidelines).

§ 112.8 Spill Prevention, Control, and Countermeasures Plan requirements for onshore facilities (excluding production facilities).

(a) In addition to the specific spill prevention and containment procedures

isted under this section, onshore facilities (excluding production facilities) must also address the general requirements listed under § 112.7 in the SPCC Plan.

(b) *Facility drainage (onshore); (excluding production facilities).* (1) Drainage from diked storage areas shall be restrained by valves or other positive means to prevent a spill or other excessive leakage of oil into the drainage system or in-plant effluent treatment system, except where facility systems are designed to handle such leakage. Diked areas may be emptied by pumps or ejectors; however, these shall be manually activated and the condition of the accumulation shall be examined before starting to ensure no oil will be discharged into the water.

(2) Flapper-type drain valves shall not be used to drain diked areas. Valves used for the drainage of diked areas shall, as far as practical, be of manual, open-and-closed design. When facility drainage drains directly into water courses and not into wastewater treatment plants, retained storm water shall be inspected as provided in paragraphs (c)(3) (ii), (iii), and (iv) of this section before drainage.

(3) Facility drainage systems from undiked areas with a potential for oil spill contamination shall flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. It is recommended that catchment basins not be located in areas subject to periodic flooding.

(4) If facility drainage is not engineered as above, the final discharge of all in-plant drainage shall be equipped with a diversion system that would, in the event of an uncontrolled spill, retain oil in the facility.

(5) Where drainage waters are treated in more than one treatment unit, it is recommended that natural hydraulic flow be used. If pump transfer is needed, two "lift" pumps shall be provided, and at least one of the pumps shall be provided, and at least one of the pumps shall be permanently installed when such treatment is continuous. Whatever techniques are used, facility drainage systems shall be adequately engineered so that, in the event of equipment failure or human error at the facility, oil will be prevented from reaching navigable waters of the United States, adjoining shorelines, or other waters that would be affected by discharging oil as described in § 112.1(b)(1) of this part.

(6) For facilities in locations subject to flooding, it is recommended that the SPCC Plan address additional requirements for events that occur during a period of flooding.

(c) *Bulk storage containers (onshore); (excluding production facilities).* (1) No tank shall be used for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure, temperature, etc. It is recommended that the construction, materials, installation, and use of tanks conform with relevant portions of industry standards such as API, NFPA, UL, or ASME standards, which are required in the application of good engineering practice for the construction and operation of the tank.

(2) All bulk storage tank installations shall be constructed so that a secondary means of containment is provided for the entire contents of the largest single tank and sufficient freeboard to allow for precipitation. Diked areas shall be sufficiently impervious to contain spilled oil for at least 72 hours. Dikes, containment curbs, and pits are commonly employed for this purpose, but they may not always be appropriate. An alternate system could consist of a complete drainage trench enclosure arranged so that a spill could terminate and be safely confined in an in-plant catchment basin or holding pond.

(3) Drainage of rainwater from the diked area into a storm drain or an effluent discharge emptying into an open watercourse, lake, or pond, and bypassing the in-plant treatment system may be acceptable if:

(i) The bypass valve is normally sealed closed.

(ii) Inspection of the run-off rainwater ensures compliance with applicable water quality standards and will not cause a discharge that may be harmful, as described in 40 CFR part 110.

(iii) The bypass valve is opened, and resealed following draining under responsible supervision.

(iv) Adequate records are kept of such events.

(4) Underground metallic storage tanks represent a potential for undetected spills. A new buried installation shall be protected from corrosion by coatings, cathodic protection, or other effective methods compatible with local soil conditions. It is recommended that such buried tanks at least be subjected to regular leak testing.

(5) It is recommended that partially buried or bunkered metallic tanks be avoided, since partial burial in earth can cause rapid corrosion of metallic surfaces, especially at the earth/air interface. Partially buried and bunkered tanks shall be protected from corrosion by coatings, cathodic protection, or other effective methods compatible with local soil conditions.

(6) Aboveground tanks shall be subject to integrity testing every ten years and when material repairs, etc. are done, taking into account tank design (floating roof, for example) and using such techniques or combinations of such techniques as hydrostatic testing, radiographic testing, visual inspections, ultrasonic testing, acoustic emissions testing, or a system of non-destructive shell testing. Comparison records shall be kept, and tank supports and foundations shall be included in these inspections. In addition, the outside of the tank shall frequently be observed by operating personnel for signs of deterioration, leaks, or accumulation of oil inside diked areas.

(7) To control leakage through defective internal heating coils:

(i) The steam return or exhaust lines from internal heating coils, which discharge into an open water course, shall be monitored for contamination, or passed through a settling tank, skimmer, or other separation or retention system. It is recommended that these systems be designed to hold the entire contents of the affected tank, be of sufficient size to contain a spill that may occur when the system is not being monitored or observed, or have fail-safe oil leakage detectors.

(ii) It is recommended that the feasibility of installing an external heating system also be considered.

(8) New and old tank installations shall, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to avoid spills. One or more of the following devices shall be provided:

(i) High liquid level alarms with an audible or visual signal at a constantly manned operation or surveillance station; in smaller plants an audible air vent may suffice.

(ii) Considering size and complexity of the facility, high liquid level pump cutoff devices set to stop flow at a predetermined tank content level.

(iii) Direct audible or code signal communication between the tank gauger and the pumping station.

(iv) A fast response system for determining the liquid level of each bulk storage tank, such as digital computers, telepulse, or direct vision gauges or the equivalent.

(v) Other devices can be considered for installation as alternate technologies, as allowed under § 112.7(a)(2).

(vi) Liquid level sensing devices shall be regularly tested to ensure proper operation.

(9) Effluents that are discharged into navigable waters shall have disposal

facilities observed frequently enough to detect possible system upsets that could cause an oil spill event.

(10) Visible oil leaks, which result in a loss of oil from tank seams, gaskets, rivets, and bolts sufficiently large to cause the accumulation of oil in diked areas, shall be promptly corrected. Accumulated oil or oil contaminated materials resulting from such discharge shall be completely removed within 72 hours from the time the spill event occurs.

(11) Mobile or portable oil storage tanks (onshore) shall be positioned or located so as to prevent oil discharges. It is recommended that a secondary means of containment, such as dikes or catchment basins, be furnished for the largest single compartment or tank. It is recommended that these facilities be located where they will not be subject to periodic flooding or washout.

(d) *Facility transfer operations, pumping, and in-plant process (onshore) (excluding production facilities).* (1) It is recommended that all piping shall be placed aboveground, where possible. New or replaced buried piping installations shall have a protective wrapping and coating and shall be cathodically protected or otherwise satisfy the corrosion protection standards for piping in 40 CFR part 280. If a section of buried line is exposed for any reason, it shall be carefully examined for deterioration. If corrosion damage is found, additional examination and corrective action shall be taken as indicated by the magnitude of the damage. It is recommended that buried piping installations comply to the extent applicable with all of the relevant provisions in 40 CFR part 280.

(2) When piping is not in service or in standby service for six months or more, the terminal connection at the transfer point shall be capped or blank-flanged, and marked as to origin.

(3) Pipe supports shall be properly designed to minimize abrasion and corrosion and allow for expansion and contraction.

(4) All aboveground valves, piping, and appurtenances shall be subjected to monthly examinations by operating personnel, at which time the general condition of items such as flange joints, expansion joints, valve glands and bodies, catch pans, pipe supports, locking of valves, and metal surfaces shall be assessed. In addition, it is recommended that facility owners or operators conduct annual integrity and leak testing of buried piping or monitor buried piping on a monthly basis. Records of such testing or monitoring shall be maintained for five years. It is recommended that all valves, pipes, and

appurtenances conform to relevant industry codes such as ASME standards.

(5) Vehicular traffic granted entry into the facility shall be warned orally or by appropriate signs to be sure that the vehicle, because of its size, will not endanger aboveground piping or other oil transfer operations. It is recommended that weight restrictions be posted, as applicable, to prevent damage to underground piping.

§ 112.9 Spill Prevention, Control, and Countermeasures Plan requirements for onshore oil production facilities.

(a) In addition to the specific spill prevention and containment procedures listed under this section, onshore production facilities must also address the general requirements listed under § 112.7 in the SPCC Plan.

(b) Onshore oil production facilities are defined in § 112.2(k).

(c) *Oil production facility (onshore) drainage.* (1) At tank batteries and central treating stations where an accidental discharge of oil would have a reasonable possibility of reaching navigable waters, the dikes or equivalent measures required under § 112.7(c)(1) shall have drains closed and sealed at all times, except when rainwater is being drained. Prior to drainage, the diked area shall be inspected and actions taken as provided in § 112.8(c)(3) (ii), (iii), and (iv). Accumulated oil on the rainwater shall be removed and returned to storage or disposed of in accordance with approved methods.

(2) Field drainage ditches, road ditches, and oil traps, sumps, or skimmers, if such exist, shall be inspected at regularly scheduled intervals for accumulation of oil or oil-contaminated soil that may have escaped from small leaks. Any such accumulations shall be removed within 72 hours.

(3) For facilities in locations subject to flooding, it is recommended that the SPCC Plan address additional requirements for events that occur during a period of flooding.

(d) *Oil production facility (onshore) bulk storage tanks.* (1) No tank shall be used for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage. It is recommended that the construction, materials, installation, and use of new tanks conform with relevant portions of industry standards, which are required in the application of good engineering practice for the construction and operation of the tank.

(2) All tank battery and central treating plant installations shall be provided with a secondary means of containment for the entire contents of the largest single tank in use and sufficient freeboard to allow for precipitation, if feasible, or alternate systems, such as those outlined in § 112.7(c)(1). Drainage from undiked areas showing a potential for contamination shall be safely confined in a catchment basin or holding pond.

(3) All tanks containing oil shall be visually examined for deterioration and maintenance needs at least once a year. Such examination shall include the foundation and supports of tanks above the ground surface. The schedule and records for examinations of tanks shall be maintained by the owner or operator for a period of five complete calendar years irrespective of changes in ownership.

(4) It is recommended that new and old tank battery installations, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to prevent spills. It is recommended that appropriate API, NFPA, and ASME standards be referenced. Consideration shall be given to providing one or more of the following:

(i) Adequate tank capacity to assure that a tank will not overflow if a pumper/gauger is delayed in making regular rounds.

(ii) Overflow equalizing lines between tanks so that a full tank can overflow to an adjacent tank.

(iii) Adequate vacuum protection to prevent tank collapse during a pipeline run.

(iv) High level sensors to generate and transmit an alarm signal to the computer where facilities are a part of a computer production control system.

(e) *Facility transfer operations, oil production facility (onshore).* (1) All aboveground valves and piping shall be examined monthly for general condition of items such as flange joints, valve glands and bodies, drip pans, pipe supports, pumping well polish rod stuffing boxes, bleeder and gauge valves. The schedule of examinations shall be included in the SPCC Plan and records of the examinations shall be maintained for a period of five years.

(2) Salt water (oil field brine) disposal facilities shall be examined often, particularly following a sudden change in atmospheric temperature, to detect possible system upsets capable of causing an oil discharge.

(3) Production facilities shall have a program of flowline maintenance to prevent spills from this source. It is

recommended that the program include monthly examinations, corrosion protection, flowline replacement, and adequate records.

§ 112.10 Spill Prevention, Control, and Countermeasures Plan requirements for onshore oil drilling and workover facilities.

(a) In addition to the specific spill prevention and containment procedures listed under this section, onshore oil drilling and workover facilities must also address the general requirements listed under § 112.7 in the SPCC Plan.

(b) Mobile drilling or workover equipment shall be positioned or located so as to prevent spilled oil discharges.

(c) Depending on the location, catchment basins or diversion structures may be necessary to intercept and contain spills of fuel, crude oil, or oily drilling fluids.

(d) Before drilling below any casing string or during workover operations, a blowout prevention (BOP) assembly and well control system shall be installed, when necessary, that is capable of controlling any well-head pressure expected to be encountered while that BOP assembly is on the well. Casing and BOP installations shall be in accordance with State regulatory agency requirements.

§ 112.11 Spill Prevention, Control, and Countermeasures Plan requirements for offshore oil drilling, production, or workover facilities.

(a) In addition to the specific spill prevention and containment procedures listed under this section, offshore oil drilling, production or workover facilities must also address the general requirements listed under § 112.7 in the SPCC Plan.

(b) Offshore oil drilling, production, and workover facilities are defined in § 112.2(j). As provided in § 112.1(d)(3), such facilities that are subject to the Operating Orders, notices, and regulations of the Minerals Management Service are not subject to this part.

(c) Oil drainage collection equipment shall be used to prevent and control small oil spillage around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and allied equipment. Facility drains shall be controlled and directed toward a central collection sump or equivalent collection system sufficient to prevent the facility from discharging oil as described in § 112.1(b)(1) of this part. Where drains and sumps are not practicable, oil contained in collection equipment shall be removed as often as necessary to prevent overflow, but not less than once a year.

(d) For facilities employing a sump system, the sump and drains shall be

adequately sized and a spare pump or equivalent method shall be available to remove liquid from the sump and assure that oil does not escape. A monthly preventive maintenance inspection and testing program shall be employed to assure reliable operation of the liquid removal system and pump start-up device. Redundant automatic sump pumps and control devices may be required on some installations.

(e) At facilities with areas where separators and treaters are equipped with dump valves for which the predominant mode of failure is in the closed position and pollution risk is high, the facility shall be specially equipped to prevent the escape of oil. Prevention of escaped oil can be accomplished by extending the flare line to a diked area if the separator is near shore, equipping the separator with a high liquid level sensor that will automatically shut-in wells producing to the separator, installing parallel redundant dump valves, or using other feasible alternatives to prevent oil discharges.

(f) Atmospheric storage or surge containers shall be equipped with high liquid level sensing devices or other acceptable alternatives to prevent oil discharges.

(g) Pressure tanks shall be equipped with high and low pressure sensing devices to activate an alarm and/or control the flow or with other acceptable alternatives to prevent oil discharges.

(h) Tanks shall be equipped with suitable corrosion protection. It is recommended that appropriate National Association of Corrosion Engineers standards for corrosion protection be followed.

(i) A written procedure for inspecting and testing pollution prevention equipment and systems shall be prepared and maintained at the facility. Such procedures shall be included as part of the SPCC Plan.

(j) Testing and inspection of the pollution prevention equipment and systems at the facility shall be conducted by the owner or operator on a scheduled periodic basis, but not less than monthly, commensurate with the complexity, conditions, and circumstances of the facility or other appropriate regulations. Simulated spill testing shall be the method used for testing and inspecting human and equipment pollution control and countermeasures systems unless the owner or operator demonstrates that another method provides equivalent alternative protection.

(k) Surface and subsurface well shut-in valves and devices in use at the

facility shall be sufficiently described to determine their method of activation or control, e.g., pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms. Detailed records for each well, while not necessarily part of the Plan, shall be kept by the owner or operator for a period of not less than five years.

(l) Before drilling below any casing string and during workover operations, a BOP preventor assembly and well control system shall be installed that is capable of controlling any well-head pressure expected to be encountered while that BOP assembly is on the well. Casing and BOP installations shall be in accordance with State regulatory agency requirements.

(m) It is recommended that extraordinary well control measures be provided if emergency conditions, including fire, loss of control and other abnormal conditions, occur. It is recommended that the degree of control system redundancy vary with hazard exposure and probable consequences of failure. It is recommended that surface shut-in systems include redundant or "fail close" valving. Subsurface safety valves may not be needed in producing wells that will not flow, but they should be installed as required by applicable State regulations.

(n) All manifolds (headers) shall be equipped with check valves on individual flowlines.

(o) If the shut-in well pressure is greater than the working pressure of the flowline and manifold valves up to and including the header valves associated with that individual flowline, the flowline shall be equipped with a high pressure sensing device and shut-in valve at the wellhead unless provided with a pressure relief system to prevent over-pressuring.

(p) All piping appurtenant to the facility shall be protected from corrosion. It is recommended that the method used, such as protective coatings or cathodic protection, be discussed.

(q) Sub-marine piping appurtenant to the facility shall be adequately protected against environmental stresses and other activities, such as fishing operations.

(r) Sub-marine piping appurtenant to the facility shall be in good operating condition at all times and inspected on a scheduled periodic basis for failures. Such inspections shall be documented and maintained at the facility for a period of five years.

(s) To prevent misunderstanding of joint and separate duties and

obligations for performing work in a safe and pollution-free manner, it is recommended that written instructions be prepared by the owner or operator for contractors and subcontractors to follow whenever contract activities include servicing a well or systems appurtenant to a well or pressure vessel. Such instructions and procedures shall be maintained at the offshore production facility. Under certain circumstances and conditions, such contractor activities may require the presence at the facility of an authorized representative of the owner or operator who would intervene when necessary to prevent a spill event.

Appendix A—Memorandum of Understanding Between the Secretary of Transportation and the Administrator of the Environmental Protection Agency.

Section II—Definitions

The Environmental Protection Agency and the Department of Transportation agree that for the purposes of Executive Order 11548, the term:

(1) *Non-transportation-related onshore and offshore facilities* means:

(A) Fixed onshore and offshore oil well drilling facilities including all equipment and appurtenances related thereto used in drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(B) Mobile onshore and offshore oil well drilling platforms, barges, trucks, or other mobile facilities including all equipment and appurtenances related thereto when such mobile facilities are fixed in position for the purpose of drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(C) Fixed onshore and offshore oil production structures, platforms, derricks, and rigs including all equipment and appurtenances related thereto, as well as completed wells and the wellhead separators, oil separators, and storage facilities used in the production of oil, but excluding any terminal facility, unit or process integrally

associated with the handling or transferring of oil in bulk to or from a vessel.

(D) Mobile onshore and offshore oil production facilities including all equipment and appurtenances related thereto as well as completed wells and wellhead equipment, piping from wellheads to oil separators, oil separators, and storage facilities used in the production of oil when such mobile facilities are fixed in position for the purpose of oil production operations, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(E) Oil refining facilities including all equipment and appurtenances related thereto as well as in-plant processing units, storage units, piping, drainage systems and waste treatment units used in the refining of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(F) Oil storage facilities including all equipment and appurtenances related thereto as well as fixed bulk plant storage, terminal oil storage facilities, consumer storage, pumps and drainage systems used in the storage of oil, but excluding inline or breakout storage tanks needed for the continuous operation of a pipeline system and any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(G) Industrial, commercial, agricultural, or public facilities which use and store oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(H) Waste treatment facilities including in-plant pipelines, effluent discharge lines, and storage tanks, but excluding waste treatment facilities located on vessels and terminal storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels and associated systems used for off-loading vessels.

(I) Loading racks, transfer hoses, loading arms and other equipment which are appurtenant to a non-transportation-related facility or terminal facility and which are used to transfer oil in bulk to or from highway vehicles or railroad cars.

(J) Highway vehicles and railroad cars which are used for the transport of oil exclusively within the confines of a non-

transportation-related facility and which are not intended to transport oil in interstate or intrastate commerce.

(K) Pipeline systems which are used for the transport of oil exclusively within the confines of a non-transportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce, but excluding pipeline systems used to transfer oil in bulk to or from a vessel.

(2) *Transportation-related onshore and offshore facilities* means:

(A) Onshore and offshore terminal facilities including transfer hoses, loading arms and other equipment and appurtenances used for the purpose of handling or transferring oil in bulk to or from a vessel as well as storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels, but excluding terminal waste treatment facilities and terminal oil storage facilities.

(B) Transfer hoses, loading arms and other equipment appurtenant to a non-transportation-related facility which is used to transfer oil in bulk to or from a vessel.

(C) Interstate and intrastate onshore and offshore pipeline systems including pumps and appurtenances related thereto as well as in-line or breakout storage tanks needed for the continuous operation of a pipeline system, and pipelines from onshore and offshore oil production facilities, but excluding onshore and offshore piping from wellheads to oil separators and pipelines which are used for the transport of oil exclusively within the confines of a non-transportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce or to transfer oil in bulk to or from a vessel.

(D) Highway vehicles and railroad cars which are used for the transport of oil in interstate or intrastate commerce and the equipment and appurtenances related thereto, and equipment used for the fueling of locomotive units, as well as the rights-of-way on which they operate. Excluded are highway vehicles and railroad cars and motive power used exclusively within the confines of a non-transportation-related facility or terminal facility and which are not intended for use in interstate or intrastate commerce.

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Federal Register

Wednesday
February 17, 1993

**Part II
Environmental
Protection Agency**

**40 CFR Part 112
Oil Pollution Prevention; Non-
Transportation-Related Onshore Facilities;
Proposed Rule**

Friday
April 9, 1993

**Part VII
Environmental
Protection Agency**

**40 CFR Part 112
Oil Pollution Prevention;
CORRECTION;
Proposed Rule**



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**Wednesday
February 17, 1993**

Part II

Environmental Protection Agency

**40 CFR Part 112
Oil Pollution Prevention; Non-
Transportation-Related Onshore Facilities;
Proposed Rule**

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 112

[SW H-FRL 4556-2]

RIN 2050-AD 30

Oil Pollution Prevention; Non-Transportation-Related Onshore Facilities

AGENCY: U.S. Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: This proposed rule would revise the Oil Pollution Prevention regulation, originally promulgated under the Clean Water Act (CWA). The proposed revision would incorporate new requirements added by the Oil Pollution Act of 1990 that direct facility owners and operators to prepare plans for responding to a worst case discharge of oil and to a substantial threat of such a discharge. Other regulatory changes to strengthen the existing regulation also are proposed.

DATES: Comments must be submitted on or before April 19, 1993.

ADDRESSES: *Comments:* Comments should be submitted in triplicate to: Emergency Response Division, Attention: Superfund Docket Clerk, Docket Number SPCC-2P, Superfund Docket, room M2427 (mail code OS-24S), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460.

Docket: Copies of materials relevant to this rulemaking are contained in the Superfund Docket, room M2427 at the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 [Docket Number SPCC-2P]. The docket is available for inspection between 9 a.m. and 4 p.m., Monday through Friday, excluding Federal holidays. Appointments to review the docket can be made by calling 202-260-3046. The public may copy a maximum of 266 pages from any regulatory docket at no cost. If the number of pages copied exceeds 266, however, a charge of 15 cents will be incurred for each page copied after 100 pages, plus a \$25.00 administrative fee.

FOR FURTHER INFORMATION CONTACT: Bobbie Lively-Diebold, Response Standards and Criteria Branch, Emergency Response Division (OS-210), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 at 703-356-8774; the ERNS/SPCC Information line at 202-260-2342; or the RCRA/Superfund Hotline at 800-424-9346 (in the Washington, DC

metropolitan area, 703-920-9810). The Telecommunications Device for the Deaf (TDD) Hotline number is 800-553-7672 (in the Washington, DC metropolitan area, 703-486-3323).

SUPPLEMENTARY INFORMATION: The contents of this preamble are listed in the following outline:

- I. Introduction
 - A. Statutory Authority
 - B. The Oil Pollution Act of 1990
 - C. This Rulemaking
- II. Alternative Approaches for Identifying Facilities Subject to Facility Response Plan Requirements
 - A. Option One
 - B. Option Two
- III. Proposed Approach for the Implementation of Facility Response Plan Requirements
 - A. Procedures and Deadlines—§§ 112.20 (a) Through (e)
 - B. Selection Criteria—§ 112.20(f) and Appendix C
 - C. Environmentally Sensitive Areas—Appendix D
 - D. Definition of Worst Case Discharge—Appendix E
 - E. Tiered Response Planning
 - F. The Determination and Demonstration of Adequate Response Capability—Appendix F
 - G. Response Plan Elements—§§ 112.20(g) and (h), and Appendix G
- IV. Relationship of Facility Response Plan Requirements to Other Programs
- V. Proposed Revisions to Existing 40 CFR part 112 Plan Requirements
 - A. Prevention Training
 - B. Ensuring Against Brittle Fracture
 - C. SPCC Plan Amendment
 - D. Authority to Require Preparation of Plans
 - E. Submission of Plans That Contain a Waiver of Technical Requirements
- VI. Other Technical Considerations Not Proposed
- VII. Regulatory Analyses
 - A. Executive Order 12291
 - B. Regulatory Flexibility Act
 - C. Paperwork Reduction Act

I. Introduction

A. Statutory Authority

Section 4202(a)(6) of the Oil Pollution Act of 1990 (OPA), Public Law 101-380, amends section 311(j) of the Federal Water Pollution Control Act, also known as the Clean Water Act (CWA), and requires the President to issue regulations that require owners or operators of tank vessels or offshore facilities or certain onshore facilities to prepare and submit to the President plans for, among other things, responding, to the maximum extent practicable, to a worst case discharge of oil and to a substantial threat of such a discharge.

Section 311(j)(1)(C) of the CWA, authorizes the President to issue regulations establishing procedures,

methods, equipment, and other requirements to prevent discharges of oil from vessels and facilities and to contain such discharges. See 33 U.S.C. 1321(j)(1)(C). The President has delegated the authority to regulate non-transportation-related onshore facilities under section 311(j)(1)(C) of the CWA to the U.S. Environmental Protection Agency (EPA of the Agency). See Executive Order 12777, section 2(b)(1), 56 FR 54757 (October 22, 1991), superseding Executive Order 11735, 38 FR 21243. By this same Executive Order, the President has delegated similar authority over transportation-related onshore facilities, deepwater ports, and vessels to the U.S. Department of Transportation (DOT) and authority over other offshore facilities, including associated pipelines, to the U.S. Department of the Interior (DOI). A Memorandum of Understanding (MOU) between the Secretary of Transportation and the EPA Administrator, dated November 24, 1971 (36 FR 24080), establishes the definitions of non-transportation-related facilities and transportation-related facilities. The definitions from the MOU are included in appendix A to 40 CFR part 112.

B. The Oil Pollution Act of 1990

The OPA was enacted to expand prevention and preparedness activities, improve response capabilities, ensure that shippers and oil companies pay the costs of spills that do occur, and establish an expanded research and development program. The Act establishes a new Oil Spill Liability Trust Fund, administered by the United States Coast Guard (USCG). As provided in sections 2002(b), 2003, and 2004 of the OPA, the new Fund replaces the fund established under section 311(k) of the CWA and other oil pollution funds.

Section 4202(a) of the OPA amends CWA section 311(j) to require regulations that provide that owners or operators of facilities prepare and submit "a plan for responding, to the maximum extent practicable, to a worst case discharge, and to a substantial threat of such a discharge, of oil or a hazardous substance." This requirement applies to any onshore facility that, "because of its location, could reasonably be expected to cause "substantial harm" to the environment by discharging into or on the navigable waters, adjoining shorelines, or the exclusive economic zone." Today's proposed revisions address only plans for responding to discharges of oil. Implementation of the OPA provisions addressing hazardous substance

response plans will be addressed in a subsequent rule.

CWA section 311(j)(5)(C) sets forth certain minimum requirements for facility response plans. The plans must:

- Be consistent with the requirements of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and Area Contingency Plans (ACPs);
- Identify the qualified individual having full authority to implement removal actions, and require immediate communications between that individual and the appropriate Federal official and the persons providing removal personnel and equipment;
- Identify and ensure by contract or other approved means the availability of private personnel and equipment necessary to remove, to the maximum extent practicable, a worst case discharge (including a discharge resulting from fire or explosion), and to mitigate or prevent a substantial threat of such a discharge;
- Describe the training, equipment testing, periodic unannounced drills, and response actions of persons at the facility to be carried out under the plan to ensure the safety of the facility and to mitigate or prevent a discharge or the substantial threat of a discharge; and
- Be updated periodically.

Under section 311(j)(5)(D), additional review and approval provisions apply to response plans prepared for onshore facilities that, because of their location, "could reasonably be expected to cause 'significant and substantial harm' to the environment by discharging into or on the navigable waters or adjoining shorelines or the exclusive economic zone." (emphasis added) Pursuant to authority delegated in Executive Order 12777, EPA is responsible for the following activities for each of these response plans at non-transportation-related onshore facilities:

- Promptly review the response plan;
- Require amendments to any plan that does not meet the section 311(j)(5) requirements;
- Approve any plan that meets these requirements; and
- Review each plan periodically thereafter.

The OPA requires that owners or operators of facilities that could cause "substantial harm" to the environment by discharging oil must submit their response plans to EPA (as delegated by the President in Executive Order 12777) by February 18, 1993, or stop handling, storing, or transporting oil. In addition, under CWA section 311(j)(5) and OPA section 4202(b)(4), a facility required to prepare and submit a response plan under the OPA may not handle, store,

or transport oil after August 18, 1993 unless: (1) In the case of a facility for which a plan is reviewed by EPA, the plan has been approved by EPA; and (2) the facility is operating in compliance with the plan. The statute provides that a facility may be allowed to operate without an approved response plan for up to two years after the facility submits a plan that is to be reviewed, if the owner or operator certifies that he or she has ensured by contract or other approved means the availability of private personnel and equipment necessary to respond, to the maximum extent practicable, to a worst case discharge, or a substantial threat of such a discharge.

Under the OPA, facility owners or operators who fail to comply with section 311(j) requirements are subject to new administrative penalties and more stringent judicial penalties than those imposed previously under the CWA. Section 4301(b) of the OPA amends CWA section 311(b) to authorize a civil judicial penalty of \$25,000 per day of violation for failure to comply with regulations under CWA section 311(j). In addition to these civil penalties, OPA section 4301(b) amends CWA section 311(b) to authorize administrative penalties for failure to comply with section 311(j) regulations of up to \$10,000 per violation, not to exceed \$25,000 for Class I penalties, and up to \$10,000 per day per violation, not to exceed \$125,000 for Class II penalties. Revisions to the penalty provisions are applicable to violations occurring after the August 18, 1990, enactment of the OPA. Violations occurring before enactment of the OPA remain subject to penalty provisions originally set forth in CWA section 311.

C. This Rulemaking

As discussed in section I.A of this Preamble, the Agency proposes revisions to the Oil Pollution Prevention regulation to implement OPA response plan requirements as well as several other technical requirements. After consideration of comments received in response to this proposed rule, a final rule will be promulgated. If comments received indicate sufficient need, the Agency will consider holding a public hearing on the proposed revisions to permit further expression of views prior to the final rulemaking. EPA will publish a notice of its intent to hold any public hearing in the Federal Register. Any statements made at such a hearing would be included in the public record of the rulemaking. Until the Agency promulgates a final rule that implements the provisions of CWA section 311(j)(5), owners and operators

of onshore, non-transportation-related facilities that handle oil may use this proposed rule as guidance to meet the CWA's requirements for facility response plans.

II. Alternative Approaches for Identifying Facilities Subject to Response Plan Requirements

The Agency investigated two approaches to identifying facilities subject to facility response plan requirements (facilities that could cause "substantial harm" to the environment) under this proposed rulemaking. The major differences between the approaches are: (1) The extent of the regulated community affected by the response plan requirements, and (2) the process to determine which facilities could cause "substantial harm" to the environment, including the selection method and criteria. The two alternatives are outlined briefly below followed by a more detailed discussion of each option. EPA proposes the first option but requests comment on the relative merits of both options.

Under Option 1, EPA would propose to implement the OPA response plan requirements as follows:

- Facilities that could cause "substantial harm" to the environment by discharging oil into navigable waters or adjoining shorelines must prepare and submit a facility response plan to EPA; and
- The Agency will review for approval, all plans submitted by facilities identified as having the potential to cause "significant and substantial harm" to the environment from such discharges.

This option in part would use a process by which owners or operators would determine whether their facility could cause "substantial harm" to the environment. To complete the self-selection process, owners or operators would be required to evaluate their facility against a set of published criteria arranged in a flowchart. The criteria include: Storage capacity, proximity to sensitive environments and drinking water supplies, marine transfer operations, adequacy of secondary containment, and spill history. EPA is considering several alternative threshold levels for the storage capacity criterion. Facilities meeting one or a combination of the above criteria would be determined to have the potential to cause "substantial harm" and would have to prepare and submit a response plan to the appropriate Regional Administrator (RA). In addition, the RA would have the authority to determine that any regulated facility, regardless of the results of the self-selection screening

process, has the potential to cause "substantial harm" based on similar criteria and taking into account other site-specific characteristics and environmental factors. To determine whether a facility could cause "significant and substantial harm" to the environment, the RA would consider other criteria in addition to the factors used in the "substantial harm" determination.

Under Option 2, EPA would propose to require that:

- All regulated facilities would have to prepare a response plan;
- Facilities that could cause "substantial harm" to the environment by discharging into water bodies or adjoining shorelines would have to submit their plans to EPA;
- The Agency would review for approval plans submitted by facilities that could cause "significant and substantial harm" to the environment from such discharges; and
- Certain small, low-risk facilities with secondary containment structures would be allowed to prepare an abridged version of a response plan.

EPA would select "substantial harm" and "significant and substantial harm" facilities using risk-based screening criteria and Regional knowledge.

A. Option One

Under Option 1, EPA would propose to implement the CWA section 311(j)(5) requirements that: (1) The owner or operator of a facility that could cause "substantial harm" prepare and submit a response plan, and (2) facilities that could cause "significant and substantial harm" to the environment have their plans promptly reviewed for approval by EPA. This approach is consistent with the OPA legislative history, which supports the Agency's position that only a subset of all submitted onshore facility response plans would be reviewed and approved. See H.R. Rep. No. 101-653, 101st Cong. 2d Sess. 1991 at p. 150.

"Substantial Harm" Facility Selection Process and Criteria

Under this option, several processes would be used to identify those facilities required to prepare and submit response plans. Facility owners and operators would be required to evaluate their facilities for the potential to cause "substantial harm" to the environment using criteria published in the proposed rule. Owners and operators would be aided in this evaluation by a flowchart designed to determine whether a facility meets the criteria and has the potential to cause "substantial harm." Instructions for the use of the flowchart would be provided to help owners and

operators apply the criteria. Under this option, owners or operators of facilities determined not to have the potential to cause "substantial harm" would be required to certify that their facility did not meet the criteria as contained in the flowchart.

The criteria that would be used to help identify the universe of "substantial harm" facilities would include facility storage capacity, proximity to sensitive environments and drinking water supplies, the existence of secondary containment, spill history, and the nature of the facility's marine transfer operations. As described in section III.B of this preamble, in addition to oil storage capacity and the proximity to potable water supplies and environmentally sensitive areas (which are elements specifically referenced in the OPA Conference Report, see H.R. Rep. No. 101-653, 101st Cong. 2d Sess. 1991 at p. 150), EPA has determined that the remaining criteria are elements that are closely related to the potential for a facility to cause "substantial harm" to the environment as a result of a discharge of oil. EPA has arranged the criteria in a flowchart (see appendix C) that shows the decision tree by which owners and operators would determine whether their facility could pose "substantial harm" to the environment.

As presented in the flowchart, a facility would be determined to have the potential to cause "substantial harm" to the environment if either of the following two screening criteria are met:

(1) The facility's total oil storage capacity is greater than or equal to 1 million gallons, and one of the following is true:

- The facility is located at a distance (as calculated using the appropriate formula in appendix C or an alternative formula considered acceptable by the Regional Administrator) such that a discharge from the facility would shut down operations at a public drinking water intake;

- The facility is located at a distance (as calculated using the appropriate formula in appendix C or an alternative formula considered acceptable by the Regional Administrator) such that a discharge from the facility could cause injury to an environmentally sensitive area;

- The facility does not have secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground storage tank within each storage area; or

- The facility has had a reportable spill greater than or equal to 10,000 gallons within the last 5 years.

(2) The facility transfers oil of any kind over water to or from vessels and has a storage capacity greater than or equal to 42,000 gallons.

EPA recognizes that large-capacity facilities have a greater potential for causing spills and subsequent environmental damage. EPA also considered an alternative storage capacity cut-off of 200,000 gallons under the first screen for Option 1. EPA requests comment on the appropriateness of the use of the 1 million gallon or 200,000 gallon size cut-off in the determination of "substantial harm" and information on any data relevant to this factor.

Under this option, the RA would have the authority to screen facilities using the same criteria that facility owners or operators would use under the self-selection process. This step will serve to verify that owners or operators are applying the screening criteria correctly. To determine substantial harm, the RA could also evaluate the risk posed by a facility using, among other things, general risk factors (i.e., proximity to sensitive environments and drinking water intakes) similar to the specific criteria discussed above. Moreover, because of the potential variation in site-specific characteristics and environmental factors, as well as the possible relevance of factors not specified in the criteria provided for owners and operators to screen their facilities, the RA would maintain the ability to consider other risk-based factors in making his or her determination. Regional knowledge about the compliance history of a particular facility, as well as other site-specific circumstances that affect the risk of harm from a discharge, are examples of such factors. EPA solicits comment on the appropriateness of these criteria for use by the facility owner or operator and the RA to determine whether a facility could cause "substantial harm" to the environment.

"Significant and Substantial Harm" Facility Selection Process and Criteria

Under Option 1, the RA would further assess the risks posed by an individual facility in order to identify the subset of "substantial harm" facilities that could cause both "significant and substantial" harm to the environment. In making this determination, the RA would use the "substantial harm" factors as well as other information, including: information from submitted plans, facility compliance history, age of tanks, proximity of discharge sources to navigable waters and additional areas of environmental concern, Regional site

characteristics, and local impacts on public health. Although based on a set of national criteria, this prioritization may differ from Region to Region depending on the relative importance of certain factors within a particular area. In addition to those facilities identified to meet the OPA's August 18, 1993, deadline, EPA also may in the future identify additional facilities as having the potential to cause "significant and substantial harm." As stated above, those facilities identified as having the potential to cause "significant and substantial harm" to the environment would be required to have their response plans reviewed for approval.

EPA solicits comment on the appropriateness and relative importance of the selection criteria in the RA's determination of "significant and substantial harm." Also, the Agency requests comment on whether the RA should consider additional facility characteristics, such as the complexity and throughput of a facility's operations and type of product stored in the determination of "significant and substantial harm."

B. Option Two

EPA also is considering a second approach to the implementation of response plan requirements, based on the authority contained in CWA subsections 311(j) (1) and (5). Under this option, all regulated facilities would be required to prepare facility response plans; certain small, low-risk facilities with secondary containment structures would be allowed to prepare an abridged version of a response plan.

Under this approach, only "substantial harm" facilities would be required to submit plans to EPA and "significant and substantial harm" facilities would have their plans reviewed and approved. All other owners and operators subject to the regulation would only have to prepare a facility response plan that would be kept at the facility.

Facility Selection Process and Criteria

The responsibility to determine "substantial harm" and "significant and substantial harm" facilities under this approach would rest entirely with the Agency. The RA would determine which facilities fall within each category using the risk-based screening criteria discussed under Option 1. The remaining aspects of Option 2 are essentially similar to those presented under Option 1.

III. Proposed Approach for the Implementation of Facility Response Plan Requirements

EPA proposes Option 1 for identifying facilities subject to response planning requirements. Only owners or operators of facilities that could cause "substantial harm" to the environment would be required to prepare and submit plans. EPA would then review and approve only those plans submitted by facilities that could cause "significant and substantial harm" to the environment. Risk-based criteria for evaluating the potential to cause "substantial harm" and "significant and substantial harm" are published in § 112.20(f) of today's proposed rule. The "substantial harm" determination would be accomplished, in large part, through a facility self-determination process which uses the criteria in proposed § 112.20(f)(1) in conjunction with the flowchart proposed in appendix C to the rule. In addition, each RA would have the authority to determine that other facilities could cause "substantial harm" to the environment based on the specific criteria in proposed § 112.20(f)(1) or the general factors in proposed § 112.20(f)(2), including other site-specific characteristics and environmental factors that may be relevant. The "substantial harm" criteria are discussed in detail in Section III.B of this preamble. In applying these factors, the RA may seek input on specific facilities from other agencies such as the USCG. The RA also may consider petitions from the public to determine whether a facility could cause "substantial harm" to the environment. Those facilities submitting plans would be required to include a response plan cover sheet (as provided in appendix G), which indicates that the information contained in the plan is accurate and which provides a basic summary of facility information including the results of the self-selection for the "substantial harm" determination. Under proposed § 112.20(e), facilities not required to submit plans would be required to maintain on-site a certification form indicating that the facility was determined not to pose the threat of "substantial harm" to the environment. EPA's formulas for distance were designed to be simple to use. However, facilities may calculate planning distances using more sophisticated formulas, which take into account broader scientific or engineering principles, or local conditions. Such alternative formulas may result in different planning distances than those

distances calculated using EPA's proposed formulas in appendix C. If an owner or operator chooses to use an alternative formula and determines that the facility could not cause substantial harm, the owner or operator must attach to the certification form a brief explanation of the formula and its reliability, and demonstrate how calculations were made. In addition, the owner or operator would be required to notify the RA in writing that an alternate formula was used to determine that the facility does not pose a threat of substantial harm. More information concerning the use of alternative formulas is provided in section III.B of this Preamble and in appendix C of the proposed rule.

To determine whether a facility could cause "significant and substantial harm" to the environment, the RA would consider the "substantial harm" criteria in proposed § 112.20(f)(2) as well as additional factors in proposed § 112.20(f)(3), including site-specific information relating to such things as local impacts on public health. Section III.B of this preamble discusses the criteria to be used by RAs in their determination of a facility's potential to cause "significant and substantial harm" to the environment.

A. Procedures and Deadlines—§§ 112.20 (a) through (e)

1. Preparing, Submitting, and Reviewing Plans

As discussed above, the Agency proposed two ways a facility can be screened as having the potential to cause "substantial harm"; one involving a self-effectuating process and the other involving an Agency determination. EPA may identify some facilities as having the potential to cause "substantial harm" that may not have been identified in the self-selection process.

Self-Selection—§ 112.20(a). The owner or operator of an existing facility that meets the criteria proposed in § 112.20(f)(1) would be required to prepare and submit a facility response plan to the appropriate RA by February 18, 1993, in order to meet the OPA deadline for plan submission. EPA proposes in § 112.20(a)(2) that owners or operators of all regulated facilities must determine whether a response plan is required for their facility based on the "substantial harm" criteria. Proposed § 112.20(f)(1) would require that an owner or operator use the flowchart in appendix C to apply these criteria. Appendix C provides information that is necessary for the owner or operator to

correctly apply certain of the criteria proposed in § 112.20(f)(1).

The Agency recognizes that self-selection may occur after February 18, 1993, because of new facilities coming on-line and existing facilities subsequently meeting the criteria for "substantial harm" as a result of a change in operations or site characteristics. To ensure consistency with the overall requirement to prepare and implement a Spill Prevention, Control, and Countermeasure (SPCC) Plan as proposed in the Phase One Notice of Proposed Rulemaking (NPRM) (56 FR 54630; October 22, 1991), EPA proposes in § 112.20(a)(2) that: (1) Newly constructed facilities be required to prepare and submit a response plan prior to the start of operations (adjustments to the response plan can be made and submitted to the Agency after an operational trial period of 60 days); and (2) existing facilities that become subject to the response plan requirements as the result of a planned change in operations be required to prepare and submit a response plan prior to the implementation of changes at the facility. For example, a facility located near an environmentally sensitive area that plans to increase its maximum oil storage capacity to one million gallons subsequently would be determined (according to the flowchart in appendix C) to have the potential to cause "substantial harm." A facility planning such a change would be required to prepare and submit a response plan prior to commencing the new operation. An existing facility, however, may become subject to the response plan requirements through one or a combination of unplanned events, such as experiencing a reportable spill or the identification of a sensitive environment adjacent to the site during the ACP development process as described in section III.C of this preamble. These factors would cause the facility to meet the criteria for "substantial harm" as described in the flowchart. For example, a facility with a total storage capacity greater than one million gallons that experiences a reportable spill exceeding 10,000 gallons would meet the proposed "substantial harm" criteria as indicated in the flowchart in appendix C. In the event of such an unplanned change in a facility's risk classification, the owner or operator would be required to prepare and submit a response plan to the RA within six months of when the change occurs (see proposed § 112.20(a)(2)(iv)).

Agency Determination/Notification for Substantial Harm—§ 112.20(b). As proposed in § 112.20(b), in the event the

Agency determines that a facility may pose a threat of "substantial harm" based on the factors in proposed § 112.20(f)(2), the RA would notify in writing the owner or operator of the facility that he or she is required to prepare and submit a facility response plan. To make such a determination, the RA could apply the factors as specified in the flowchart for facility self-selection. Non-notification by the RA would not exempt facilities from the requirement to prepare and submit response plans by February 18, 1993, if they meet the self-selection criteria in the proposed flowchart in appendix C. Under this approach, facilities identified by the RA as having the potential to cause "substantial harm," including new facilities and facilities undergoing a change in operations or facility-specific characteristics, would have six months after notification to prepare and submit a response plan to the appropriate RA. In addition to those facilities identified to meet the OPA's February 18, 1993, deadline, EPA also may in the future identify additional facilities as having the potential to cause "substantial harm" to the environment. Plans submitted by those facilities identified by the RA as having the potential to cause "substantial harm" to the environment will be reviewed by the RA to determine if the facility has the potential to cause "significant and substantial harm" to the environment.

EPA proposes in § 112.20(f)(2)(ii) to allow interested members of the public or Federal, State, or local agencies an opportunity to petition the RA to determine whether a specific facility could cause "substantial harm" to the environment. Under this process, the petitioner would have the opportunity to submit in writing a discussion of how the "substantial harm" criteria proposed in § 112.20(f)(2)(i) apply to the facility in question. The RA would evaluate such petitions in making a determination of whether the facility could cause "substantial harm" to the environment. The factors the RA would consider to determine whether a facility could cause "substantial harm" are discussed in section IV.B of this preamble.

Agency Determination/Notification for Significant and Substantial Harm—§ 112.20(c). As proposed in § 112.20(c)(1), the RA would notify in writing the owner or operator of a facility determined to have the potential, based on the criteria in proposed § 112.20(f)(3), to cause "significant and substantial harm" that his or her response plan will be reviewed for approval. This process would allow facility owners or operators

the opportunity to seek, if necessary, authorization from the RA to operate temporarily without an approved response plan. In addition to those facilities identified to meet the OPA's August 18, 1993, deadline, EPA in the future also may identify additional facilities as having the potential to cause "significant and substantial harm." As proposed in § 112.20(c)(1), RAs would be required to periodically review approved response plans from facilities determined to have the potential to cause "significant and substantial harm" to the environment, in addition to reviewing plans submitted to meet the OPA deadline. EPA solicits comment how frequently the RA should review approved facility response plans, and, in particular, whether three years is an appropriate period between plan review. The following section discusses additional revisions proposed in § 112.20(c).

OPA Deadlines for "Substantial Harm" and "Significant and Substantial Harm" Facilities. The OPA sets forth specific timing requirements for when facility owners or operators must prepare and submit response plans to the RA, and the consequences of not submitting a plan when required. If the owner or operator of a facility required to prepare and submit a plan to the RA has not done so by February 18, 1993, that facility must stop handling, storing, or transporting oil. Further, a facility not operating in compliance with the response plan after August 18, 1993, must stop handling, storing, or transporting oil.

The OPA does not specifically address events occurring after the statutory deadlines and leaves implementation of the facility response plan requirement with regard to facilities identified after the statutory deadline to the discretion of the Agency. The Agency interprets the statute as not requiring that a facility determined to have the potential to cause "substantial harm" to the environment that has not submitted a facility response plan by February 18, 1993, must stop handling, storing, or transporting oil until such a plan is submitted, if the determination is made after February 18, 1993. The Agency believes its interpretation of the OPA, which allows six months from the time of discovery or notification that a facility could cause "substantial harm" to prepare and submit a plan, is reasonable and consistent with the objectives of the OPA. EPA requests comment on the choice of a six-month time frame versus a shorter period for development of a plan.

According to the OPA, a facility required to have its response plan

reviewed and approved must stop handling, storing, or transporting oil unless the plan has been approved by August 18, 1993. However, as indicated in the OPA Conference Report (H.R. Rep. No. 101-653, 101st Cong., 2d Sess. 1991 at p. 151), the number of plans requiring review may prevent the RAs from reviewing all response plans by the statutory deadline. Thus, CWA section 311(j)(5)(F) allows the owner or operator of a facility to seek Federal authorization to operate for up to two years after the plan has been submitted for approval if the owner or operator has certified that he or she has ensured by contract or other federally-approved means the availability of private personnel and equipment necessary to respond, to the maximum extent practicable, to a worst case discharge or substantial threat of such a discharge.

As discussed in section I.B of this preamble, a related OPA requirement is that response plans shall identify, and ensure by contract or other federally-approved means the availability of private personnel and equipment necessary to remove a worst case discharge. Although the response plan would already identify such resources, the requirement to certify their availability is necessary only when plan approval is required and cannot take place before the statutory deadline. Such a situation could arise if a large number of plans require approval. The Agency proposes in § 112.20(c)(2) that if notified by EPA that a submitted response plan requires approval and that approval will not be forthcoming prior to the August 18, 1993, deadline, the owner or operator of the facility has 30 days to certify and provide a copy of a signed contract or other approved means demonstrating the availability of adequate resources. The RA would determine whether the response resources identified in the facility's response plan were adequate. Guidelines for the determination and demonstration of adequate response capability are discussed in detail in Section III.F of this preamble.

2. Owner or Operator Participation in RA Determination

EPA considered several options for allowing the owner or operator to participate in the RA's determination process. Under one option, the Agency would allow an owner or operator to appeal the RA's determination that a facility poses a threat of "substantial harm" or "significant and substantial harm." Under this option, the Agency would use the procedures described in § 112.4(f) of the existing regulation. The appeal would have to be made to the

EPA Administrator in writing within 30 days of notification by the RA that the facility could cause "substantial harm" or "significant and substantial harm" to the environment. The appeal would have to contain a clear and concise statement of why the facility does not pose a threat of "substantial harm" or "significant and substantial harm" and could contain other information the owner or operator believes to be relevant to the determination. The EPA Administrator or his or her designee would then render a decision on the appeal and would notify the owner or operator of the decision.

Under a second option, EPA would allow no formal Agency appeals process for determinations of "substantial harm" or "significant and substantial harm." As a third option, EPA would select an intermediate approach that would allow the facility owner or operator to provide information and data and to consult with the RA about the determination. Following this consultation, the RA would make a final determination on whether the facility could cause "substantial harm" or "significant and substantial harm" to the environment. The Agency solicits comment on an appeals process for determinations of "substantial harm" and "significant and substantial harm" by the RA. Also, the Agency requests comment on a process to allow an owner or operator of a facility that could cause "significant and substantial harm" to appeal a decision by the RA not to approve a facility response plan.

3. Plan Resubmittal—Section 112.20(d)

As discussed above, the RA would periodically review approved facility response plans from facilities determined to have the potential to cause "significant and substantial harm" to the environment. Proposed § 112.20(d)(1) would require the owner or operator to resubmit the plan for approval within 60 days of each material change in the plan. A material change is one that could affect the adequacy of a facility's response capabilities, such as the ability to respond to a worst case discharge.

Examples of material changes include: a significant change in facility capacity, configuration, or type of oil handled; changes in the capability or availability of response contractors; and changes in spill prevention equipment or response procedures which may affect the potential for a discharge to cause "significant and substantial harm" to the environment. In addition, CWA section 311(j)(5)(C) requires that a facility response plan be consistent with the ACP. Therefore, a review of the ACP

(when it is made available and annually thereafter) might prompt changes to the facility response plan that could trigger plan resubmittal (e.g., identification of sensitive environments that could be affected by a discharge from the facility). Plan revisions that affect only names or phone numbers (e.g., changes to the emergency notification list) would not require resubmission for approval under proposed § 112.20(d)(2). EPA proposes in § 112.20(d)(2), however, that owners or operators submit changes to the notification list to the appropriate RA, as the revisions occur. The Agency requests comment on the proposed requirement to submit changes in the call-down list to the RA.

4. Facilities Not Posing "Substantial Harm" to the Environment—Section 112.20(e)

Facilities that are determined not to have the potential to cause "substantial harm" would not be required to prepare and submit a response plan as described in proposed § 112.20. Such facilities, however, that have determined that the installation of structures or equipment listed in § 112.7(c)(1) is not practicable are required under the existing regulation to prepare but not submit "a strong oil spill contingency plan." As discussed in section V of this preamble, EPA proposes to clarify the existing requirement to provide "a strong oil spill contingency plan" by referencing the proposed response plan requirements contained in § 112.20.

EPA proposes in § 112.20(e) to require that owners or operators of those regulated facilities not submitting response plans complete and maintain at the facility with the SPCC Plan a certification form (see appendix C) that indicates that the facility is determined not to have the potential to cause "substantial harm" to the environment as indicated by the "substantial harm" flowchart published in appendix C.

B. Selection Criteria—§ 112.20(f) and Appendix C

The following paragraphs present a discussion of the criteria that would be used to select "substantial harm" and "significant and substantial harm" facilities. The criteria proposed in § 112.20(f) to determine facilities that could cause "substantial harm" to the environment include: Type of marine transfer operation; oil storage capacity; lack of secondary containment; proximity to environmentally sensitive areas; proximity to public drinking water intakes; and spill history. For self-selection purposes under § 112.20(a), the "substantial harm" criteria in proposed § 112.20(f)(1) have been

arranged in a flowchart (see appendix C to the rule) to be used by owners and operators in determining if they must submit a response plan to the Agency for their facility. The proposed flowchart is a decision tree that indicates the combinations of these criteria that would lead to the determination that a facility could cause "substantial harm" to the environment. Appendix C also provides additional information in Attachment C-III (i.e., distance calculations) that is used to apply the criteria in the flowchart. EPA recognizes that the owner or operator of a regulated facility may determine that a facility has the potential to cause substantial harm to the environment without having to assess every criterion in the flowchart.

RAs would apply general "substantial harm" factors in § 112.20(f)(2), which are broader than the specific criteria set forth for owners or operators in making their determination of a facility's potential to cause "substantial harm" to the environment. In addition to the "substantial harm" factors, RAs would be able to consider additional factors in making their determination of a facility's potential to cause "significant and substantial harm" to the environment, including: The age of a facility's tanks; proximity to navigable waters and environmental areas of concern; spill frequency; as well as other facility-specific and Regional-specific information (e.g., local impacts on public health). The Agency requests comment on the appropriateness and relative importance of the following factors in the determination of "substantial harm" through self-selection or RA determination.

"Substantial Harm" Criteria

Type of Transfer Operation. Because of the complex nature of their operations, marine transfer facilities are more likely to experience spill events into navigable waters and adjoining shorelines than other facilities. Such facilities are immediately adjacent to navigable waters and transfer oil on a regular basis. Moreover, transfers to or from vessels (e.g., barges) at these facilities often involve large quantities of oil. As such, spills that do occur often enter directly into navigable waters and may involve significant quantities of oil. Therefore, EPA proposes in § 112.20(f)(1)(i) that any regulated facility that transfers oil products over water to or from vessels, and that has a total oil storage capacity greater than or equal to 42,000 gallons, has the potential to cause "substantial harm" to the environment and must submit a facility response plan.

Many sites at which oil is transferred in bulk to or from a vessel are likely to include both transportation-related transfer facilities regulated by the USCG and non-transportation-related oil storage facilities regulated by EPA. This combination of transportation-related and non-transportation-related facilities will be considered a complex and will be subject to multi-agency jurisdiction. EPA and the USCG have coordinated to ensure that "substantial harm" selection criteria are similar in nature for both agencies. This cooperation will lead to consistency between the agencies in the determination of "substantial harm" for facilities that transfer oil products to or from vessels over water. EPA and the USCG would use similar criteria, including transfers over water of oil to or from a vessel to determine "substantial harm." Thus certain facilities regulated by EPA (oil storage facilities) and the USCG (marine transfer facilities) would be determined to have the potential to cause "substantial harm" to the environment under both EPA and USCG regulations. EPA requests comment on the appropriateness of this substantial harm criterion as it may apply to facilities that fuel vessels.

Oil Storage Capacity. The oil storage capacity of the facility is another factor that would be considered in evaluating the potential for "substantial harm" posed by facilities. The larger the quantity of oil present, the larger the potential spill and the resulting environmental impact. Large discharges are also more likely to escape secondary containment and may damage nearby tanks, as occurred during the Ashland Oil spill. Weakened tank integrity is of greater concern for tanks with large storage capacities where the resulting forces on the tank (created by large fluid volumes) are greater. The Agency proposes in § 112.20(f)(1)(ii) that any facility with a total oil storage capacity greater than or equal to one million gallons in combination with one of the following four "substantial harm" criteria would be determined under the self-selection process to have the potential to cause "substantial harm" to the environment: lack of secondary containment, proximity to environmentally sensitive areas, proximity to public drinking water intakes, or spill history.

Lack of Secondary Containment. The importance of secondary containment as a means of preventing spills from reaching navigable waters is well documented. In a 1989 incident in Port Arthur, Texas, nearly 6 million gallons of crude oil were released from a storage tank, but none of the oil reached nearby

navigable waters because of the presence of adequate secondary containment. Such incidents, where the entire amount of oil released from the tank remains within a secondary containment structure, are not reportable spills under 40 CFR part 110. Secondary containment structures, which meet the standard of good engineering practice for purposes of 40 CFR part 112, can take many forms including berms, dikes, retaining walls, curbing, culverting, gutters, or other drainage systems. As described in § 112.7(e)(2)(ii), secondary containment at bulk storage facilities must be able to hold the entire contents of the largest single tank plus have sufficient freeboard to allow for precipitation.

The central role of secondary containment as a preventive mechanism is underscored by the existing provision in § 112.7(d) that requires a facility owner or operator to provide a strong oil spill contingency plan when it is determined that the installation of structures or equipment to prevent discharged oil from reaching navigable waters is not practicable. Given the importance of secondary containment, the Agency proposes in § 112.20(f)(1)(ii)(A) that any facility with an oil storage capacity greater than or equal to one million gallons, which lacks secondary containment for all storage tanks, would be determined to have the potential to cause "substantial harm" to the environment.

Proximity to Environmentally Sensitive Areas. A facility's proximity to environmentally sensitive areas increases the potential for a spill to reach and damage these areas, in the event secondary containment measures fail.

Therefore, such proximity is an important consideration in the assessment of the existence of a threat of "substantial harm." The Agency proposes in § 112.20(f)(1)(ii)(B) that any facility with an oil storage capacity greater than or equal to one million gallons that is located at a distance such that a discharge could cause injury to (e.g., damage or negatively affect productivity or ability to propagate) an environmentally sensitive area would be determined to have the potential to cause "substantial harm" to the environment.

EPA proposes in § 112.2 to define "injury" as a measurable adverse change, either long- or short-term, in the chemical or physical quality or the viability of a natural resource resulting either directly or indirectly from exposure to a discharge of oil, or exposure to a product of reactions resulting from a discharge of oil. This

definition is derived from the definition of "injury" in the Natural Resources Damage Assessments Final Rule at 43 CFR part 11 (51 FR 27727, August 1, 1986), which encompasses the phrases "injury," "destruction," and "loss." The language proposed at 40 CFR 112.2 differs only in that hazardous substances are not included in the definition because today's response plan rulemaking does not address hazardous substances. The definition of "injury" is applied by natural resource trustees to assess the damage to natural resources from oil spills. Because natural resource trustees have extensive experience in evaluating the impacts of oil spills on natural resources based on this definition, the Agency believes that the definition is an appropriate gauge to assess the potential to cause substantial harm to the environment. EPA requests comment on the appropriateness of defining "injury" in such a manner.

Appendix D identifies areas that may be considered environmentally sensitive. As discussed in section III.A of this preamble, the owner or operator would be required to apply the "substantial harm" criteria in conjunction with the flowchart contained in appendix C. For purposes of self-selection, Attachment C-III to appendix C provides formulas that owners or operators could use to determine appropriate distances from the facility for environmentally sensitive areas. Owners or operators may use an alternative formula(s) as long as it achieves results consistent with the purposes of this requirement and is considered acceptable to the RA. EPA considers an acceptable alternative formula to be one that is equivalent in terms of reliability and analytical soundness. As proposed at § 112.20(a)(3), owners or operators that use an alternative formula would be required to provide documentation with the response plan cover sheet on the reliability and analytical soundness of the formula. EPA does not anticipate that extensive documentation will be necessary to assess the appropriateness of alternative formulas. Accordingly, owners or operators need only provide basic information on the origin and nature of the formula as well as an example of how it was used to determine the appropriate distance for a particular facility. Owners or operators that use an alternative formula should consider the formula acceptable unless notified otherwise by the appropriate RA.

Appendix C to this part contains several different distance calculations based on oil transport on different types of media (i.e., fast-moving waters, still

lakes and ponds, and land). EPA expects that the distance calculation for a fast-moving water body will apply to most of the facilities that complete the substantial harm screen. This calculation is based on the velocity of the water body and the time intervals for the arrival of response resources. The flow velocity of the water body has a direct effect on how far the oil will travel before response actions can be employed to contain the release. For moving water bodies, velocity is determined through the use of an equation that models the flow of water in open channels. To calculate the velocity, owners or operators would need to obtain information on river characteristics from the sources listed in Table 2 of appendix C. Similarly, the more time it takes for emergency response personnel and equipment to arrive on-scene and deploy containment measures, the farther downstream the released oil will travel from the origin of the spill. In highly populated areas, where a significant volume of marine traffic is present, response resources will be able to arrive on-scene more quickly than in remote areas. The response times provided in Attachment C-III of appendix C are consistent with the response times guidelines of the USCG for spill response contractors to arrive on-scene. A three-hour time period has been added to factor in the deployment of equipment. Facilities with oil storage capacities of greater than or equal to 1 million gallons are believed to have the potential to discharge oil in quantities that could cause injury to a sensitive environment located within the downstream distance calculated by the formula. For owners or operators of facilities that could discharge into a still water body, EPA has provided an alternative formula to determine the relevant distance. In addition, appendix C provides information on how owners or operators should consider overland flow in the distance calculations. EPA requests data and comment on the appropriateness of the distance calculations in appendix C for inland areas. In addition, the Agency requests comment on the appropriateness of using specified distances from the facility (e.g., 40 miles downstream) in the determination of proximity to these areas.

Proximity to Public Drinking Water Intakes. A facility's proximity to drinking water intakes increases the potential for a spill to reach and contaminate or render inoperable these intakes. The OPA Conference Report states that the criteria developed to determine "substantial harm" and

"significant and substantial harm" facilities should include location of potable water supplies (see H.R. Rep. No. 101-653, 101st Cong. 2d Sess. 1991 at p. 150). Therefore, EPA has included proximity to drinking water intakes as a factor to consider in the determination of the potential to cause "substantial harm" to the environment.

An example of a discharge that affected potable water supplies is the January 1988 spill in Floreffe, Pennsylvania, when the rupture of an aboveground storage tank allowed 750,000 gallons of diesel oil to escape containment, flow into a storm drain located in an adjacent parking lot, and subsequently reach the nearby Monongahela River. As a result of the spill, more than 70 communities in three States stopped drawing water from the river. Such an interruption of public drinking water supplies can threaten the health and safety of affected communities.

The Agency proposes in § 112.20(f)(1)(ii)(C) that any facility with an oil storage capacity greater than or equal to one million gallons that is located such that a discharge would shut down a public drinking water intake would be determined to have the potential to cause "substantial harm" to the environment. EPA would define public drinking water intakes as those covered by the Safe Drinking Water Act. The Agency solicits comment on whether private drinking water supplies should be included in the criteria for the determination of "substantial harm." As previously discussed for environmentally sensitive areas, Attachment C-III to appendix C provides formulas that owners or operators could use in calculating appropriate distances from the facility for purposes of the assessment of the risk of affecting public drinking water intakes. EPA proposes that an alternative distance formula(s) acceptable to the RA could also be used in this determination. As discussed above for environmentally sensitive areas, owners or operators that use an alternative formula would be required to provide documentation on the reliability and analytical soundness of the formula.

Spill History. Spill history is an important factor to consider in the assessment of risk to the environment posed by a particular facility. Because larger spills can cause greater damage to the environment, the size of past spills may be an indication of the potential for a facility to cause "substantial harm" to the environment. EPA proposes in § 112.20(f)(1)(ii)(D) that any facility that has a total oil storage capacity greater

than or equal to one million gallons and that in the past five years has had a reportable spill greater than or equal to 10,000 gallons would be determined to have the potential to cause "substantial harm" to the environment. The Agency requests comments as well as data on the appropriateness of the use of a spill size of 10,000 gallons for this criterion, as well as information on alternate spill sizes.

Additional Criteria for Use by the Regional Administrator in the Determination of "Significant and Substantial Harm"

Discussed below are factors proposed in § 112.20(f)(3) that may be used by the RA, in addition to those contained in § 112.20(f)(2), to determine whether a facility could cause "significant and substantial harm" to the environment. For purposes of determining "substantial harm," the RA would consider whether a facility meets one of the factors in § 112.20(f)(2). Facilities that meet one or more of the "substantial harm" criteria, in combination with any of the additional factors discussed below, can present a greater risk of harm to the environment. For purposes of making the "significant and substantial harm" determination, therefore, the RA would consider whether a facility meets one or more of the "substantial harm" factors in combination with the following factors. EPA solicits comment on the appropriateness of the RA's use of the following factors for the determination of "significant and substantial harm."

Frequency of Past Spills. In addition to the size of previous spills (as discussed under the section on "substantial harm" criteria), the frequency of spill events is another important factor in assessing the potential for causing harm to the environment. A facility that has experienced multiple spills in the last five years may pose a greater risk of experiencing a spill event in the future than those facilities that have not had a spill. Multiple spills in a relatively short time period may have a cumulative effect on the impacted environment. Moreover, frequency of spills may be an indication of poor operating practices or a lack of training or prevention measures. Examples of facilities that have had several spills in a single year include a facility in Baltimore, Maryland that reported 44 separate spill incidents from 1989 to 1990 and a facility in Tupman, California that reported 14 spills in 1990 ranging in volume from 504 gallons to 3,780 gallons.

Proximity to Environmental Areas of Concern. To assist owners or operators, appendix D identifies areas that may be environmentally sensitive for purposes of the substantial harm determination. Appendix D also identifies additional areas of concern that the RA may consider to identify "significant and substantial harm" facilities.

Proximity to Navigable Waters. The proximity of a facility to navigable waters often directly influences the probability that a discharge, which escapes secondary containment, will reach such waters. Often, the most environmentally damaging spills, such as the Ashland Oil spill, occur at facilities whose boundaries border navigable waters. For example, all 20 worst case spills documented in the Technical Background Document which supports the Phase Two rulemaking occurred at facilities whose closest opportunity for discharge was located within one-half mile of navigable waters.

Tank Age. EPA has identified tank age as an additional factor that may be related to the potential for a facility to cause "significant and substantial harm" to the environment. Older tanks tend to have weakened structural integrity, depending on the maintenance history of the tank, increasing the risk of a spill. American Petroleum Institute (API) Standard 653 requires that the internal inspection intervals of tanks must not exceed 20 years. This limit on the inspection interval reflects the age at which structurally related failures are more likely to occur.

Criteria EPA Considered but is not Proposing. Natural hazards and high-risk environments may be other important factors in the assessment of the risk of a facility posing "substantial harm" to the environment. Facilities that are located in areas prone to natural hazards (i.e., floods, hurricanes, and earthquakes) may pose a greater threat to the environment. Case studies from the Technical Background Document which support this proposed rulemaking indicate that facilities susceptible to such events are more likely to have multiple tank failures and may have greater spill volumes than comparable facilities located outside these areas. For example, in November 1990, heavy rains and flooding washed away two aboveground storage tanks at a facility in Alaska and caused a 16,000 gallon spill into Diomed Harbor. Examples of large spills that involve facilities located in hurricane zones are well documented. Most recently, on September 17, 1989, Hurricane Hugo destroyed five 4.2 million gallon oil storage tanks on the south coast of St.

Croix, U.S. Virgin Islands. Over 420,000 gallons of crude and No. 6 oil were discharged from the damaged tanks, with 42,000 gallons of oil reaching the waters of Limetree Bay.

In addition to risks posed by natural hazards, proximity to high-risk environments may be another important factor to consider in assessing the potential for a facility to cause harm to the environment. Karst and unstable terrains and areas with ground water concerns (e.g., recharge zones) are examples of such high-risk environments that may deserve consideration. For example, a tank located on unstable terrain, such as a sink hole could fail, releasing its contents to the ground water, if the substrate providing a foundation for the tank were to shift suddenly by a significant amount. For tanks located near certain ground water zones that have a direct connection to surface waters, discharges that enter the ground water have the potential to reach surface waters.

EPA does not have sufficient data available in a form that will substantiate including natural hazards and high-risk environments among the criteria for "substantial harm" determination and is therefore not proposing them in today's rulemaking. The Agency requests comment and supporting data on natural hazard factors and high-risk environments as indicators for "substantial harm" determination.

The Agency also considered proximity to cooling water intakes for electric utilities (including nuclear power plants), as a risk factor for use in the determination of the threat of "substantial harm." Utilities need substantial lead time in the event of a spill to shut down operations or implement alternative cooling mechanisms. Failure to shut down operations prior to contamination could lead to significant public health risks. EPA requests comments and supporting data on whether cooling water intakes or other intakes, such as those for commercial process water or irrigation water should be considered in the assessment of the potential for a facility to cause "substantial harm" to the environment. In addition, EPA solicits comment on other criteria, such as the type of product stored, throughput, and number and size of transfer operations, that should be included in the self-selection process or that the RA should consider in making determinations of "substantial harm" and "significant and substantial harm" for specific facilities. The Agency requests comment on whether more specific criteria should be used by the RA to identify those

facilities that could cause significant and substantial harm to the environment.

C. Environmentally Sensitive Areas—Appendix D

The proposed rule provides that facilities and RAs must consider proximity to environmentally sensitive areas to determine the potential for a facility to cause "substantial harm" to the environment. These areas may include: wetlands, National and State parks, critical habitat for endangered/threatened species, wilderness and natural areas, marine sanctuaries, conservation areas, preserves, wildlife areas, scenic and wild rivers, seashore and lakeshore recreational areas, and critical biological resources areas. An interagency "Sensitive Environments Technical Workgroup" provided input to ensure that consistent criteria were applied in identifying areas that may be of concern for facility-specific plans and ACPs.

As ACP development proceeds, Area Committees will identify and prioritize specific locations within the boundaries of their areas. These newly-identified environmentally sensitive areas will eventually be incorporated into the ACPs. Many ACPs may not be established prior to the OPA deadline for response plan submission. Thus, EPA proposes in § 112.20(g)(2) that, upon completion of the ACP (for the Area in which the facility is located), facility owners or operators must review and, as necessary, revise their facility response plan to incorporate information, such as additions to the list of sensitive areas and the designation of priority areas for protection as reflected in the ACP.

In addition, the RA would have the authority to determine, on a case-by-case basis, additional areas that possess ecological value (e.g., unique local areas or habitats). The Agency requests comment on whether additional areas should be considered, such as shallow aquifers used as drinking water supplies or critical habitats closely hydrological linked to surface water that are subject to contamination by discharges of oil. EPA is particularly interested in receiving comment on whether the list should include wellhead protection areas as defined in section 1428 of the Safe Drinking Water Act.

The Agency believes that in some areas of the country there is anecdotal information indicating problems in ground water caused by oil spills from onshore facilities. This could be especially true for areas with high water tables. EPA requests that commenters provide us examples of this type of

ground water contamination. In addition, EPA would like commenters to provide comments on what action, if any, the Agency should take to address such oil spills.

EPA has compiled information in appendix D (Attachments D-I, D-II, and D-III) to help owners and operators identify specific geographical areas which may be among sensitive environments. Attachment D-I provides a list of the Federal agencies responsible for management of the environmentally sensitive areas. For more information on the various types of areas listed (including maps), owners or operators can contact the responsible agency. Attachments D-II and D-III would help owners and operators identify sensitive environments by providing information on designated critical habitats for National Marine Fisheries Service species and marine sanctuary and estuarine reserves and also may be useful to owners and operators in preparing response plans if they are required.

In addition, EPA has included in appendix D other reference information on sensitive environments that may be useful to facility owners or operators during plan preparation. Specifically, attachments D-IV and D-V are intended to help owners and operators prioritize sensitive areas according to their vulnerability to damage from oil spills for purposes of planning the deployment of response resources.

EPA recognizes that those areas defined as environmentally sensitive will change as the various Federal and State agencies responsible for designating the areas periodically update their lists. Owners and operators are expected to ensure that facility response plans reflect the listings of sensitive environments published to a point in time 6 months prior to plan submission. For example, plans submitted to meet the February 18, 1993, deadline would need to consider sensitive environments designated by the responsible agencies (see Attachment D-I of appendix D) as of August 18, 1992. A 6-month cutoff point for considering environmentally sensitive areas would also apply in situations where plans are periodically updated or resubmitted for approval of a material change. Six months is believed to be a reasonable period to incorporate new information on sensitive environments and is consistent with other time frames related to the submission of materials to EPA under the Oil Pollution Prevention regulation. The Agency requests comments on the appropriateness of a 6-month cutoff

point for the consideration of sensitive environments.

D. Definition of Worst Case Discharge—Appendix E

OPA section 4202(a) requires that the President issue regulations providing that owners and operators of tank vessels, offshore facilities, and certain onshore facilities prepare and submit response plans for responding, to the maximum extent practicable, to a worst case discharge of oil or a hazardous substance. Today's proposal would identify the onshore, nontransportation-related facilities that would be subject to this requirement, as described in section I.B of this preamble.

OPA section 4201(b) defines "worst case discharge" as: (1) In the case of a vessel, a discharge in adverse weather conditions of its entire cargo, and (2) in the case of an onshore or offshore facility, the largest foreseeable discharge in adverse weather conditions. The OPA Conference Report (H.R. Rep. No. 101-653, 101st Cong., 2d Sess. 1991) states that, in the case of facilities, a more general definition of worst case is used because it is difficult to describe the entire capacity of some fixed facilities, such as pipelines. According to the Conference Report, Congress intends facility owners or operators to prepare plans for responding to discharges that are worse than either the largest spill to date at the facility or the maximum probable spill for that facility type.

Options for Regulatory Definition

In § 112.2, EPA proposes a regulatory definition of worst case discharge for onshore facilities. Specifying the definition is important because to prepare a response plan for a worst case discharge, a facility owner or operator must determine a planning quantity that corresponds to the amount of oil that could be discharged under worst case circumstances. The facility's worst case discharge volume will significantly affect the resources necessary to implement the plan.

EPA considered three options for defining worst case discharge: (1) A discharge equal in amount to the aboveground storage capacity of the entire site or installation; (2) a discharge equal in amount to the capacity of the largest single tank within a secondary containment area or the combined capacity of a group of aboveground tanks permanently manifolded together within a common secondary containment area lacking internal

subdivisions,¹ whichever is greater; and (3) a discharge equal in amount to the capacity of the largest single tank within a secondary containment area or the combined capacity of a group of aboveground tanks permanently manifolded together within a common secondary containment area lacking internal subdivisions, whichever is greater, plus an additional quantity based on several parameters, including the adequacy of secondary containment and proximity to navigable waters.

EPA proposes Option 3 to determine a facility's worst case discharge for response planning. Option 3 would allow the definition of worst case discharge to reflect differences among facilities based on location and the presence of secondary containment. The Agency concludes that these factors best reflect the flexibility represented by the definition of a worst case discharge for a facility (i.e., the largest foreseeable discharge in adverse weather conditions), and best reconcile the differences between worst case discharges for vessels and facilities. The definition reflects the fact that a facility with adequate secondary containment, as defined in existing § 112.7(e)(2)(ii), is not likely to discharge its entire capacity in adverse weather conditions, as opposed to a vessel which may lose its entire cargo since there is little to prevent all of the released oil from a vessel from directly entering the water. Finally, this option is consistent with the intent of the OPA. The legislative history of the OPA states that the worst case discharge for a facility should describe a discharge "that is worse than either the largest spill to date or the maximum probable spill for that facility type." See H.R. Rep. No. 101-653, 101st Cong. 2d Sess. 1991 at p. 147).

The Agency proposes in § 112.2 to define "adverse weather" as the weather conditions that make it difficult for response equipment and personnel to cleanup or remove spilled oil. These conditions include significant wave height, ice, extreme temperatures, weather-related reduced visibility, and fast currents. EPA has included guidelines in appendix F (see Table 1 of appendix F) to the rule to assist owners or operators in evaluating the operability of response equipment (i.e.,

oil recovery devices and boom) for various sea states and wave heights. ACPs also may contain information concerning other conditions in the area that are significant factors in evaluating the operability of equipment.

Although Option 1, which defines a worst case discharge as a discharge equal to the total aboveground storage capacity at the site, is comparable to the definition of worst case specified in the OPA for vessels (i.e., the entire cargo), there are no documented spills of the entire capacity of a multi-tank facility with secondary containment into navigable waters.

For purposes of this determination, Option 2 would define the worst case discharge as an amount equal to the capacity of the largest single tank within a secondary containment area or the combined capacity of a group of aboveground tanks permanently manifolded together within a common secondary containment area lacking internal subdivisions, whichever is greater. For many regulated facilities (those with only one tank), the option is identical to Options 1 and 3. Evidence from case studies, however, suggests that spills caused by flooding, hurricanes, and earthquakes at multi-tank sites may involve discharges of oil greater than the capacity of the single largest tank; spills caused by natural disasters often involve releases of oil from more than one tank. Although the planning quantity for worst case discharge could be described by the combined capacity of a group of aboveground tanks permanently manifolded together within a common secondary containment area lacking internal subdivisions, EPA recognizes that a multiple tank failure may involve tanks from distinct secondary containment systems, and the definition described above is merely a planning quantity.

Worst Case Discharge Calculation Worksheets

Under proposed Option 3, facility owners or operators would calculate the worst case discharge volume for their facilities, using worksheets developed by EPA. This approach is consistent with the concept in the OPA Conference Report that planning for a worst case discharge involves a facility-specific determination. These proposed worksheets are provided in appendix E of 40 CFR part 112. Part A of appendix E contains the worst case discharge calculation for storage facilities. A separate worksheet has been developed for production facilities (part B of appendix E), because of the added concerns associated with production

volumes at such facilities. Unlike storage facilities, which handle a set amount of oil, production facilities must consider throughput and the potential for oil contained in the underground natural reservoir to escape containment during extraction operations. EPA proposes in § 112.20(h)(5)(i)(A) that if the RA determines that the worst case discharge volume calculated by a facility is not appropriate or that the parameters in the worksheet are not appropriate for a particular type of facility, the RA may specify the worst case discharge amount to be used for response planning at that facility. The RA could make such a case-by-case determination during the review of response plans prepared by facilities.

In the event the RA finds it necessary to determine the worst case discharge volume, the RA will consider the same factors addressed by the worksheet (i.e., secondary containment and proximity to navigable waters), in the specific context of the facility in question as well as other facility-specific circumstances that may be relevant to the calculation. An example of how the RA might tailor the criteria to the specific circumstances at a facility involves a regulated facility with underground storage tanks. Completely buried storage tanks, such as those at service stations, may have the potential to cause spills to surface waters when tanks are overfilled. The RA would consider the quantity of product stored, as well as the proximity to surface waters in arriving at a worst case discharge volume.

For owners and operators of storage facilities with a single aboveground tank, the worst case discharge volume would be the entire storage capacity of the tank. To assist owners and operators of other onshore storage facilities and production facilities in calculating a worst case discharge volume, the worksheets integrate the use of secondary containment and proximity to navigable waters. For production facilities, the presence of storage tanks and the production volume for exploratory wells and production wells must also be considered in the calculation. The worst case scenario is influenced by the extent of spill prevention and containment measures in place. A spill at a facility with secondary containment structures may have negligible environmental impact, while a comparable spill at a facility without such structures may result in the entire capacity of the facility reaching navigable waters. The presence of secondary containment at a facility, therefore, influences the final calculated worst case discharge volume. Proximity

¹ Tanks that are permanently manifolded together are defined as tanks that are designed, installed, and/or operated in such a manner that the multiple tanks function as one storage unit. As such failure of a single tank in the system could lead to the release of the capacity of more than a single interconnected tank. Tanks permanently manifolded together within a common secondary containment area are considered to be single tanks for purposes of this calculation, if each tank is separated by internal dividing structures.

to navigable waters is also an important factor in the assessment of the worst case discharge volume. Based on the goals of the OPA and the Oil Pollution Prevention regulation, the definition of what constitutes a worst case spill is directly influenced by the potential for the spill to reach navigable waters.

To complete the worksheets in appendix E for production facilities and multiple tank storage facilities, owners or operators would first determine whether secondary containment, as described in § 112.7 of the existing regulation, is present for each storage tank or group of tanks at the facility. If such secondary containment is not present, a final worst case discharge volume is calculated based in part on the total aboveground storage capacity without secondary containment (for storage facilities) or total aboveground storage capacity without secondary containment plus the production volume of the well with the highest output at the facility² (for production facilities). If secondary containment is present for some tanks, the owner or operator calculates a potential worst case volume based on whether the facility is adjacent to navigable waters. If the facility is not adjacent to navigable waters, the worst case discharge amount is the capacity of the largest single tank within a secondary containment area or the combined capacity of a group of aboveground tanks permanently manifolded together within a common secondary containment area lacking internal subdivisions, whichever is greater, plus an additional quantity for any tanks without secondary containment. For purposes of this calculation, tanks within a common secondary containment area that have adequate internal subdivisions are considered single tanks whose capacity would not be combined. If the facility is adjacent to navigable waters the worst case discharge amount is adjusted upwards by a factor of 10 percent of the capacity of tanks with secondary containment. EPA solicits comment on the overall approach and specific factors in the proposed worksheets in appendix E.

As discussed above, tanks that are permanently manifolded together are tanks with common piping that are designed, installed, and/or operated as a single storage unit. Because the potential discharge amount is greater for a system of tanks permanently

manifolded together, EPA proposes that the worst case discharge planning amount be increased to reflect the combined capacity of all tanks in the system. EPA recognizes that certain tank systems where tanks are connected by piping may not be operated as a single unit. Owners or operators of facilities with tanks that are connected by common piping or piping systems that can demonstrate to EPA that the system does not operate as a single unit would not have to plan for the combined capacity of all tanks in the system but the capacity of the single largest tank. EPA proposes to require that such evidence be provided to the RA in the model response plan under the discussion of worst case discharge in the discharge scenarios section.

EPA requests comment on allowing a reduction in the worst case discharge planning amount from 100 percent (110 percent for facilities adjacent to navigable waters) of the capacity of the largest single tank or group of tanks down to 50 percent for facilities with adequate secondary containment in place for oil storage containers.³ The Agency also requests comment on the appropriateness of further reductions in the worst case discharge volume (i.e., up to 100 percent) for facilities with adequate secondary containment for all storage containers. Under this approach, the presence of secondary containment would allow the owner or operator to reduce the worst case discharge planning amount and the corresponding amount of response resources. EPA specifically solicits comment on the implication for response capability of a reduction in the worst case discharge planning amount and data on the potential cost savings associated with any such reductions in planning quantity.

As proposed in appendix E, the production volume for each production well (producing by pumping) would be determined from the pumping rate of the well multiplied by 1.5 times the number of days the facility is unattended. For each exploratory well (and production well producing under pressure) 10,000 feet deep or less, the production volume refers to the maximum 30-day forecasted well rate. For each exploratory well (and production well producing under pressure) deeper than 10,000 feet, the production volume refers to the maximum 45-day forecasted well rate. EPA specifically requests comment and

data on the appropriateness of using a 30-day forecasted well rate (for wells less than or equal to 10,000 feet deep) or 45-day forecasted well rate (for wells greater than 10,000 feet deep) as production volumes in the calculation of the worst case discharge amount at facilities with exploratory wells and production wells producing under pressure.

EPA realizes that under the proposed self-selection process, smaller facilities, including many small production facilities are unlikely to screen as having the potential to cause "substantial harm" to the environment. RAs, however, may determine that any regulated facility, regardless of its storage capacity could cause substantial harm to the environment. Thus, the worksheets for production facilities may be necessary under circumstances in which the RA selects, for example, a production facility storing relatively small amounts of oil, a marine transfer facility with less than 42,000 gallons, or a facility with a storage capacity of less than 1 million gallons.

Worst Case Discharge Calculation for Complexes

As discussed in section III.B of this preamble, a complex is a facility that has both transportation-related and non-transportation-related components and is therefore subject to the response plan requirements of more than one authority. Each component of a complex would have an associated worst case discharge amount. The Agency expects, however, that the likelihood of each component experiencing a worst case discharge simultaneously is small. EPA proposes in § 112.20(h)(5)(i)(C) that a worst case discharge volume at a complex be the larger of the amounts calculated pursuant to the respective regulations that apply for each component of the facility. The Agency requests comment on the appropriateness of this method in the determination of a worst case discharge for a complex.

E. Tiered Response Planning

The Agency proposes in § 112.20(h)(5) that facility owners and operators prepare plans for responding to lesser discharges, as appropriate, in addition to a worst case discharge as required by the OPA. This tiered response planning by facilities that are determined to have the potential to cause "substantial harm" to the environment will help ensure protection of public health and welfare and the environment by facilitating effective response to discharges to navigable waters or adjoining shorelines. Proposal of a

² As defined, onshore oil production facilities may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas operated by a single operator.

³ Only tanks with secondary containment would be eligible for this reduction; for tanks without secondary containment, the entire capacity of the tanks would be included in the worst case discharge amount.

tiered planning approach is consistent with other agencies' (such as the USCG's) implementation of OPA response planning requirements.

EPA considered proposing that owners or operators prepare response plans for responding to worst case discharges only. The Agency concluded that a plan only for a response to a worst case discharge would not necessarily be effective in a response to a lesser discharge and that lesser discharges may pose a serious threat to navigable waters, especially from the cumulative effects of several discharges. Over 70 percent of all spills reported to the Federal government in 1989 and 1990 (approximately 48,000 incident reports were received by the National Response Center during that time) were less than 100 gallons and over 90 percent were less than 1,000 gallons. Preparing for an appropriate response to such smaller spills could lead to better overall protection of the nation's navigable waters. In addition, various sizes of discharges could require different types and amounts of equipment, products, and personnel. Planning for various levels of spills would allow facility owners or operators to begin to respond to any size discharge prior to the arrival of personnel and resources under contract with the facility and would provide insight into the most likely spill situations and should reveal many potential problems that could surface during actual discharges. Planning for these problems would enable facility or contractor response personnel to respond quickly and appropriately to a range of spill events.

The Agency recognizes that this tiered planning approach may not be appropriate for all facilities, including those where the range of possible spill scenarios is small. For example, responding to a worst case discharge at a small, one-tank facility (release of entire capacity of the tank) may be similar in approach to responding to a lesser spill (release of a portion of the capacity of the tank) at that facility. These responses would not require a significantly different response strategy or level of response resources. Owners and operators of large, multi-tank storage and production facilities, however, are among those who would be required to plan for spill events of different sizes, because the range of spill scenarios could vary greatly at such facilities. For example, although small spills could be handled by company response personnel, large spills may require the resources of outside parties.

The Agency examined several options for the determination of these additional planning quantities. One approach

would be to use facility-specific planning quantities by basing the amount on actual operations and spill history at a facility. Although this option would account for the tremendous diversity of regulated facilities, it cannot be applied in a simple manner by owners and operators. A second option would be to establish standard amounts for the entire regulated community. A third option, which EPA proposes today in § 112.20(h)(5), would establish limited ranges for alternate discharge amounts. Although large facilities would still need to plan for three discharge amounts under this method, a small facility may only need to plan for two scenarios or a single scenario if its worst case discharge falls within one of the ranges.

In addition to planning for a worst case discharge, under proposed § 112.20, facility owners and operators would be required to plan for (1) a small spill, defined as any spill volume less than or equal to 2,100 gallons, but not to exceed the calculated worst case discharge; and (2) a medium spill, defined as any spill volume greater than 2,100 gallons, and less than or equal to 36,000 gallons or 10 percent of the capacity of the largest tank at the facility, whichever is less, but not to exceed the worst case discharge. For facilities whose worst case discharge is a medium spill, the owner or operator would plan for two amounts, a worst case spill and a small spill. Similarly, for facilities whose worst case discharge is a small spill, the owner or operator would plan only for a worst case discharge.

EPA realizes that under the proposed self-selection process, smaller facilities are unlikely to qualify as having the potential to cause "substantial harm" to the environment. RAs, however, may determine that any regulated facility, regardless of its storage capacity and number of tanks, could cause "substantial harm" to the environment. Thus, the collapsing nature of the proposed tiered planning approach may be relevant under circumstances in which the RA selects a facility storing relatively small amounts of oil (i.e., less than 36,000 gallons).

For complexes (i.e., facilities regulated by both EPA and USCG), the owner or operator would first determine a medium planning quantity for the transportation-related and non-transportation-related components at the facility. The owner or operator would then compare the medium planning amounts for each component of the facility. Following this comparison, the owner or operator

would select the larger of the quantities as the medium tiered planning amount for the overall facility.

The ranges for these alternate planning quantities were determined through a statistical analysis of spills reported to the Emergency Response Notification System (ERNS) data base. A discharge of 1,300 gallons is the average reported discharge in ERNS. For a small spill, an amount up to 2,100 gallons is believed to represent a realistic planning quantity that will allow owners or operators to prepare for operational-type spills that occur relatively frequently. Selection of 36,000 gallons was based on the 99.5th quantile. This means that 99.5 percent of future spills are expected to be less than approximately 36,000 gallons. To provide greater flexibility in establishing a medium planning amount, EPA proposes in § 112.20(h)(5)(i) to allow owners or operators to plan for 36,000 gallons or 10 percent of the capacity of the largest tank at the facility, whichever is less. Planning for a spill of this size represents a practical and realistic intermediary planning level. The Agency solicits comment on the selection of these standard planning amounts, including information on other methods to identify standard amounts, such as being planning quantities on the definition of minor, medium, and major discharges in 40 CFR part 300. Under the NCP a minor oil discharge means a discharge to the inland waters of less than 1,000 gallons or a discharge to coastal waters of less than 10,000 gallons; a medium oil discharge means a discharge to the inland waters of 1,000 to 10,000 gallons or a discharge to coastal waters of 10,000 to 100,000 gallons; and a major oil discharge means a discharge to the inland waters of 10,000 to 100,000 gallons or a discharge to coastal waters of more than 100,000 gallons. To the extent that response resources are currently geared to spills of these sizes, such ranges may be appropriate for establishing tiered planning amounts. Also, EPA requests comments on the option of using facility-specific planning quantities as well as information from other options in the determination of these alternate amounts.

F. The Determination and Demonstration of Adequate Response Capability

1. The Determination of Response Resources—Appendix F

To ensure the availability of private personnel and equipment necessary to

respond, to the maximum extent practicable, to a worst case discharge, contracts or other approved means (as proposed in § 112.2 of today's proposed rule) may include:

- A written contractual agreement with a response contractor. The agreement must identify and ensure the availability of the necessary personnel or equipment within appropriate response times;

- Certification that the necessary personnel and equipment resources, owned and operated by the facility owner or operator, are available to respond to a discharge within appropriate response times;

- Active membership⁴ in a local or regional oil spill removal organization, which has identified and ensures adequate access through membership to necessary personnel and equipment within appropriate response times in the specified geographic areas; or

- Other specific arrangements approved by the RA upon request of the owner or operator.

In appendix F to the rule, EPA provides guidelines for the types and amounts of equipment and response times that are needed to respond to spill of a given size. Similar guidelines were originally developed by the USCG for vessel response plans and facility response plans for marine transportation-related onshore facilities. EPA has adapted the USCG's proposed guidelines for use by non-transportation-related onshore facilities (i.e., facilities regulated by 40 CFR part 112) in complying with the OPA requirement to identify and ensure adequate resources. The guidelines describe procedures for determining the "maximum extent practicable" quantity of resources and response times for responding to a worst case discharge and other discharges, as appropriate. These procedures identify practical and technical limits on response capabilities that an individual facility owner or operator can contract for in advance and on response times for resources to arrive on scene. The guidelines are intended to assist owners or operators of facilities in preparing response plans and EPA in reviewing plans. The Agency requests comment on the procedures contained in appendix F of the rule for the determination and evaluation of required response resources. In addition, EPA solicits comment on whether the guidelines are appropriate for planning for inland spills by

facilities regulated by the Oil Pollution Prevention regulation.

EPA proposes at § 112.2 a definition of "maximum extent practicable" to mean the limitations used to determine oil spill planning resources and response times for on-water recovery and shoreline protection and cleanup for worst case discharges from onshore non-transportation-related facilities in adverse weather. EPA interprets the phrase "to the maximum extent practicable" to include considerations such as the technological limitations associated with oil discharge removal (e.g., boom effectiveness and equipment recovery rates in adverse weather), and the practical and technical limits of response capabilities of individual owners or operators. This interpretation is consistent with the OPA Conference Report (H.R. Rep. No. 101-653, 101st Cong., 2d Sess. 1991 at p. 150). To address these limitations, the guidelines in appendix F establish operability criteria for oil recovery devices and boom as well as caps on response resources that facility owners or operators should identify and ensure as being available, through contract or other approved means. The caps reflect an estimate of the response capability at a given facility that is considered a practical nationwide target to be met by 1993. Recognizing that the OPA Conference Report suggests a significant increase in commercial removal resources may be needed in most areas of the country to comply with the national planning and response system, EPA is soliciting comment on the anticipated effects this provision may have on the oil spill response industry.

2. Verification of Response Capability

As previously discussed, plan drafters would need to identify and verify response resources when preparing plans. EPA would evaluate such arrangements during the plan review stage, to ensure the contractual availability of equipment and personnel from contractors identified in response plans to provide response resources. This process would require that evidence of contracts or agreements with response contractors be included in the response plan so that the availability of resources can be verified during plan review. Agency reviewing officials may need to take additional steps to determine that contractors or cooperatives do possess, and maintain in a ready condition, the necessary response inventory to handle the size of spills for which they contract.

One option to provide review officials with more information would be to establish a contractor certification or

approval program. The State of Washington has instituted a contractor certification program and the USCG is considering the development of contractor approval procedures for spill response contractors under a separate rulemaking. Among the relevant factors in the assessment of contractor arrangements might be proximity to the facility as it affects response times, the adequacy of equipment and personnel resources, the contractor's past performance and safety record, and the number of additional facilities the contractor has agreed to support. The Agency requests comment on the criteria for evaluating contractor agreements, a mechanism for approving response contractors, and the advisability of establishing a response contractor approval process.

G. Response Plan Elements—§§ 112.20(g) and (h), and Appendix G

The elements for response planning proposed in § 112.20 of this rule are designed to guide a facility owner or operator in gathering the information needed to write a response plan for the facility's worst case discharge and, as described in section III.E of this preamble, for discharges smaller than a worst case discharge. The proposed response plan elements address requirements under CWA section 311(j)(5) (as amended by the OPA), as well as additional elements that EPA has determined are necessary to ensure the integrity of the response plan. The OPA Conference Report suggests that facility response plans should be consistent with but not duplicative of plans prepared under other Federal programs, and EPA encourages owners or operators to incorporate into the response plan information required by other Federal programs. Some of these programs are discussed in Section IV of this preamble. Owners or operators need not prepare a separate plan to comply with the Oil Pollution Prevention regulation if they have already prepared a plan for the State in which the facility is located, provided that the State plan addresses the requirements and includes all the elements described in § 112.20(h) and is cross-referenced appropriately. Proposed § 112.20(h) would require that response plans contain an emergency response action plan to be kept at the front of the response plan binder or under a separate cover that accompanies the overall plan.

EPA considered a requirement for certification by a Registered Professional Engineer for certain portions of the response plan, such as determination of worst case discharge, and solicits

⁴ Membership in a spill response cooperation must ensure ready access to the organization's response resources for the arrangement to be acceptable to the RA for the purposes of this regulation.

comment on this option. The contents of a response plan would be subject to review during routine inspections by On-Scene Coordinators (OSCs) or during State inspections. In addition, the RA would review the contents of response plans from facilities identified as posing a threat of "significant and substantial harm," before granting approval. EPA solicits comment on which professions may be suitable for evaluating and certifying the contents of the response plan if EPA determines a certification requirement is appropriate. In particular, the Agency requests comment on the suitability of Certified Hazardous Materials Managers to perform the plan certification function.

In accordance with CWA section 311(j)(5), proposed § 112.20(g) would require that a facility response plan be consistent with the NCP and with ACPs described in section IV of this preamble. For example, the OPA requires amendments to the NCP that establish procedures and standards for removing a worst case discharge of oil and for mitigating or preventing a substantial threat of such a discharge. Also, the OPA requires the preparation of ACPs designed to augment the capabilities for responding to worst case discharges when implemented in conjunction with the NCP. The discussion of worst case discharge in a facility response plan should be consistent with the procedures and standards laid out under these broader plans. To ensure such consistency, EPA proposes in § 112.20(g)(2) to require that owners or operators, review on an annual basis appropriate parts of the NCP (e.g., subparts A through D) and, when available, the applicable ACP and revise the response plan as necessary. As discussed in section III.C of this preamble, ACPs may not be available in time for owners or operators to review them before initial response plan preparation. Owners or operators are encouraged to obtain from local or Regional sources (e.g., Regional Response Teams (RRTs) or OSCs) the details of the ACP for the area in which their facility is located, and develop their facility response plans accordingly. Proposed § 112.20(g) also states that facility owners or operators should coordinate with the local emergency planning committee (LEPC) and State emergency response commission (SERC) when developing their facility response plans to ensure consistency with the local emergency response plan required under section 303 of title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III).

Model Response Plans

Today, EPA includes in appendix G to the rule a model response plan to assist owners and operators in addressing the required elements outlined in proposed § 112.20(h). The organization of the model plan and the information to be contained in it are representative of the format and level of detail needed to address the required response plan elements in an acceptable manner. A response plan, as shown in appendix G, would be required for facilities that are determined to have the potential to cause "substantial harm" to the environment. EPA recognizes that, in certain cases, information required in the model response plan is similar to information currently maintained in the facility's SPCC Plan. In these cases, owners or operators can simply reproduce the information and include a copy in the response plan.

As discussed in section III.A of this preamble, EPA proposes in § 112.20(a)(2)(i)-(iv) to require that all facilities submitting a response plan must complete and return to EPA a Response Plan Cover Sheet with the response plan. The cover sheet is intended to provide the Agency with basic information concerning the facility and would be used by Regions to check the "substantial harm" self-determination process. A copy of the cover sheet is included as Attachment G-II of appendix G along with instructions for completion of the form. The cover sheet provides space for: Basic facility information, responses to the "substantial harm" flowchart contained in appendix C, worst case discharge amount, additional facility characteristics (i.e., latitude and longitude, and proximity to navigable waters), and certification.

A blank copy of a model response plan is included as appendix G of 40 CFR part 112. Affected facilities (those that could cause "substantial harm") would prepare (1) a response plan that meets the requirements of §§ 112.20(g) and (h) as reflected in the model response plan provided in appendix G; or (2) a comparable State or other Federal agency response plan that is appropriately cross-referenced and meets the requirements of §§ 112.20(g) and (h). A facility response plan would include a discussion of the following elements:

Emergency Response Action Plan—§ 112.20(h)(1). In order to facilitate response actions, EPA proposes that facility owners or operators be required to compile key sections of the overall response plan into an emergency response action plan that is maintained

in an accessible location. The sections of the action plan may be photocopies or condensed versions of the forms included in the associated sections of the overall response plan. EPA proposes that the following information be included in the action plan in format specified in proposed § 112.20(h)(1):

- Emergency Response Coordinator Information—from the Facility Information Section;
- Emergency Notification Phone List—from the Emergency Response Section;
- Spill Response Notification Form—from the Emergency Response Section;
- Equipment List and Location—from the Emergency Response Section;
- Facility Response Team—from the Emergency Response Section;
- Evacuation Plan—from the Emergency Response Section;
- Immediate Action—from the Plan Implementation Section; and
- Facility Diagram—from the Diagrams Section.

The action plan is designed to provide the facility owner or operator with information on critical steps to stabilize the source of the spill, notify the appropriate people, and prevent the spread of spilled oil. The action plan would be kept in the front of the overall facility response plan or in a separate binder that accompanies the overall plan.

Facility Information—§ 112.20(h)(2). The requirement in CWA section 311(j)(5) to designate a facility emergency response coordinator is addressed in proposed § 112.20(h)(2). The facility information section of the model response plan provides space to identify a qualified individual having full authority, including contracting authority, to implement removal actions. The Agency requests comment on whether facility owners and operators should be required to designate an alternate emergency response coordinator. This section also provides space to include additional facility information, much of which may be obtained from the facility's existing SPCC Plan. Other items include general facility information such as the facility name, address, telephone number, owner and operator, and longitude and latitude in minutes and degrees.

Emergency Response—§ 112.20(h)(3). The model plan contains space in the emergency response section to address the CWA section 311(j)(5) requirement that the emergency response coordinator be able to immediately communicate with the appropriate Federal official and the persons providing personnel and equipment (e.g., a spill response contractor). To facilitate compliance

with this requirement, the section contains space for a telephone list of people or organizations to contact in the event of a discharge, including the National Response Center, the facility's own and/or contracted response teams, local response teams, local hospitals, and local radio stations (if evacuation is necessary). Notification of the National Response Center is required under regulations implementing CWA section 311(b). (See 33 CFR part 153, 40 CFR part 300, and 40 CFR 117.21.) The contact list should be accessible to all facility employees to ensure that, in case of a discharge, any employee on site could immediately notify the appropriate parties. A notification checklist also is included in this section of the model plan. The checklist outlines the information to relay to response officials, such as information on the spill amount, material, impact of the spill, and response actions.

The CWA requires that a facility response plan describe the response actions of persons at the facility. This requirement is addressed in the emergency response section of the model plan, which provides space to include a detailed description of the duties of the emergency response coordinator and other response personnel during a response to a discharge.

Pursuant to CWA section 311(j)(5), owners or operators must identify and ensure by contract or other means acceptable to EPA (e.g., participation in a spill response cooperative in lieu of an individual contract) the availability of private personnel and equipment necessary to respond, to the maximum extent practicable, to a worst case discharge. The OPA Conference Report indicates Congress contemplated creating a system in which private parties supply the bulk of equipment and personnel needed for response to large oil spills. See OPA Conference Report, H.R. Rep. No. 101-653, 101st Cong., 2d Sess. 1991 at p. 148. The model response plan provides space to identify companies that will provide such personnel and equipment. Evidence of contracts or agreements with response contractors must be included in this section so that the availability of resources can be identified. As discussed in Section III.F of this preamble, the contract or response agreement will be subject to review by the appropriate EPA Regional office to ensure that the agreement provides adequately for response, mitigation, and prevention.

Response capability may also be provided through the use of internal response personnel and equipment

resources. The model plan provides space for a list of the facility's response personnel and response equipment, including its location and operational status and the date the equipment was last tested.

Also included in the emergency response section of the model plan are guidelines for preparing evacuation plans for the facility and surrounding community. Additional information on the guidelines that may be helpful in the preparation of an evacuation plan can be obtained from the Handbook of Chemical Hazard Analysis Procedures prepared by EPA, DOT, and the Federal Emergency Management Agency (FEMA). Evacuation routes must be shown on a diagram of the facility.

Hazard Evaluation—§ 112.20(h)(4). A hazard evaluation section is included in the model response plan. Hazard evaluation is a widely used industry practice that allows owners or operators to develop a complete understanding of potential hazards and the response actions necessary to address these hazards. The Handbook of Chemical Hazard Analysis Procedures, prepared by EPA, DOT, and FEMA and the Hazardous Materials Emergency Planning Guide (NRT-1), prepared by the National Response Team are good references for conducting a hazard analysis. The hazard evaluation will provide information for developing discharge scenarios for a worst case discharge and medium and small discharges. This section of the response plan provides space for a hazard identification, a vulnerability analysis, and an analysis of the potential for a discharge. This information allows the facility owner or operator to evaluate day-to-day operations for potential discharges and to change standard operating procedures if a potential for a discharge is discovered.

As part of the hazard evaluation, EPA proposes that owners or operators identify what the potential effects of the discharges would be on the affected environment. To assess the range of areas potentially affected, owners or operators shall consider the distances calculated in the substantial harm determination process discussed in section III.B of this preamble. Those owners or operators that have made a substantial harm determination without performing the distance calculation should use the appropriate formula in appendix C or an alternative method to quantitatively evaluate the appropriate range of potentially affected areas.

Also in the hazard evaluation section of the model response plan, the owner or operator would provide information on the facility's discharge history (if any

have occurred) including dates, causes, amounts discharged, and response actions. Information collected for purposes of meeting the existing § 112.4(a) requirements may be used to document spill history in the response plan.

Discussion of Tiered Planning Scenarios—§ 112.20(h)(5). The discharge scenario section provides for discussions of specific discharge scenarios. As discussed in section III.E of this preamble, EPA proposes a tiered approach to response planning that considers smaller, more probable discharge quantities in addition to the worst case discharge specified in the OPA. Therefore, in addition to the development of a scenario which uses the "worst case discharge" amount calculated from the worksheet in Appendix E, the owner or operator of a facility must plan and prepare for small and medium discharge quantities, as appropriate. When describing each discharge scenario, the owner or operator would consider facility operations and factors that effect the response effort, such as the potential direction of the discharge and impact on the surrounding area.

As discussed in section III.E of this preamble, owners or operators of complexes would determine planning quantities for the transportation-related and non-transportation-related components of the facility. The owner or operator would then compare the corresponding worst case discharge and medium planning amounts, as appropriate, for each component of the facility. In each case, the owner or operator would select the larger of the two amounts as the appropriate planning quantity.

Discharge Detection—§ 112.20(h)(6). The prompt discovery of a discharge and the initiation of effective response actions are critical to minimize the damage caused by a discharge. The discharge detection section provides space for describing the discharge detection systems, human or automated, in use at the facility. Often, the choice of a human or automated system depends on the size and complexity of facility operations.

Plan Implementation—§ 112.20(h)(7). The CWA requirement that facility owners or operators describe response actions to ensure the safety of the facility and to mitigate or prevent discharges, or substantial threats of discharges, is proposed in § 112.20(h)(7). The plan implementation section of the model response plan contains space for describing such response actions, including the steps facility personnel would follow to

mitigate and respond to each discharge described in § 112.20(h)(5); the amount of personnel and equipment that will be needed to respond to the specific discharge under consideration; plans to dispose of contaminated materials, debris, and recovered product; required Federal or State permits (e.g., Resource Conservation and Recovery Act (RCRA) permits for disposal of contaminated materials); and measures to provide for containment and drainage.

As discussed in section III.F of this preamble, EPA has provided guidelines in appendix F of the rule to establish appropriate personnel and equipment levels and response times for given spill sizes. Owners and operators are encouraged to use these guidelines to determine the quantity of resources that must be identified and available, through contract or other approved means, for responding to a worst case discharge and other discharges.

Facility Self-Inspection, Training, and Meeting Logs—§ 112.20(h)(8). In the model plan, the facility self-inspection, training, and meeting logs section provides space to include inspection checklists for tanks, secondary containment, and response equipment and logs for discharge prevention meetings. Much of the recordkeeping information contained in this section is required by the existing Oil Pollution Prevention regulation. Therefore, portions of the self-inspection, training, and meeting logs section may be completed by compiling information from other parts of existing SPCC Plan. Moreover, information collected for purposes of meeting § 112.4(a) requirements may be used to document spill history in the response plan.

The CWA also requires owners or operators to describe training and periodic unannounced drills to be carried out under the response plan. In the model plan, the training section provides space to include a series of logs for recording unannounced or "mock alert" drills and staff training related to emergency response. The model response plan in appendix G provides recommendations for planning mock alert drills. The Agency requests comment on how frequently such unannounced drills should be conducted.

Diagrams—§ 112.20(h)(9). This section of the model response plan describes diagrams for the site plan and the drainage plan. Such diagrams help facility personnel identify the nearest opportunity for a discharge to reach navigable waters and help responders visualize location and layout information so they can act promptly during time critical situations.

Security—§ 112.20(h)(10). A security section is included in the model response plan and provides space to address existing Oil Pollution Prevention provisions contained in 40 CFR 112.7, as well as several additional items being proposed in the Phase One rule. This section provides for a description of the facility's security and should, as appropriate, include items such as emergency cut off locations, fencing, guards, lighting, valve and pump locks, and pipeline connection caps.

The Agency requests public comment on the appropriateness and level of detail of the information required in the model response plan as well as other information that may be necessary for an effective response plan. For more information on the organization of the model response plan and specific information to be included in the plan, see the "Technical Background Document to Support the Phase Two Oil Pollution Prevention Rulemaking," available for inspection in room M2427 at the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 [Docket Number SPCC-2P].

IV. Relationship of Facility Response Plan Requirements to Other Programs

1. USCG, Minerals Management Service (MMS), and Other Federal Agencies

In developing this proposed rule, EPA has coordinated with the DOT (including the USCG) and the Minerals Management Service (MMS) throughout this rulemaking process to ensure that the response plans for transportation-related facilities and non-transportation-related offshore facilities are consistent, to the degree possible, with the plans for non-transportation-related onshore facilities required under this regulation. This coordination should help avoid any duplication of effort on the part of the regulated community in complying with these regulations. For example, a complex described in section III.B of this preamble as an onshore site or installation that has both transportation-related and non-transportation-related components (e.g., a marine transfer facility with above ground storage tanks), need prepare only one response plan with separate sections addressing each component. Separate sections may be needed in the plan to address different regulatory provisions or various definitions that may apply to the different components.

EPA would allow USCG OSCs the opportunity to review response plans of non-transportation-related onshore facilities subject to 40 CFR part 112. Specifically, a USCG OSC would be

given an opportunity to review and comment on any submitted facility response plan (whether transportation-related or non-transportation-related) for a facility geographically located within the USCG's area of responsibility, as the predesignated OSC. For response purposes, the NCP divides the United States into inland and coastal zones. The USCG and EPA are assigned responsibility for predesignating OSCs for the coastal and inland zones, respectively. Final approval of the response plan would remain with EPA for facilities subject to 40 CFR part 112. Any objection to the response plan raised by a USCG OSC would be considered by the RA for final approval of the plan and any issues would be quickly resolved through interagency discussions.

The Agency also has worked with members of DOI, NOAA, the Fish and Wildlife Service, and the National Park Service to define sensitive environments. Coordination with other departments and agencies in this area is critical given the anticipated changes to the NCP and the relationship of those proposed changes to facility response planning requirements.

2. The NCP and ACPs

Section 311(j)(5)(C) of the CWA requires that facility response plans be consistent with the requirements of the NCP and ACPs. The NCP provides the general organizational structure and procedures for addressing discharges of oil and hazardous substances under the CWA, as well as releases of hazardous substances, pollutants, and contaminants under CERCLA. Among other things, the NCP specifies responsibilities among Federal, State, and local governments; describes resources available for response; summarizes State and local emergency planning requirements under the Emergency Planning and Community Right-to-Know Act (EPCRA or SARA Title III); and establishes procedures for undertaking removal actions under the CWA. Until a revised NCP is published, as mandated under OPA section 4201(c), facility response plans should be consistent with the current NCP.

ACPs, mandated under CWA section 311(j)(4) and prepared by Area Committees comprised of qualified personnel of Federal, State, and local agencies, are required to ensure, when implemented in conjunction with other elements of the NCP, the removal of a worst case discharge from a facility operating in or near the area covered by the plan. ACPs will cover discharges affecting all U.S. waters and adjoining shorelines. EPA and the USCG are

responsible for developing ACPs for the inland and coastal zones, respectively. Until ACPs have been developed, facility response plans should be consistent with existing OSC contingency plans in the coastal zone and Federal RCPs in the inland zone.

3. RCRA

EPA regulations in 40 CFR part 264 (Subpart D) promulgated under RCRA establish requirements for owners and operators of hazardous waste facilities to use in developing facility-specific contingency plans. The plans must include response procedures; a list of all persons qualified to act as a facility emergency coordinator; a list of all emergency equipment and, when required, decontamination equipment at the facility; evacuation plans, when evacuation could be necessary; and arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services. In addition, newly promulgated 40 CFR part 279 establishes facility-specific contingency planning and emergency procedure requirements for used oil at re-processing and refining facilities. To avoid duplication of effort, owners or operators of facilities subject to the regulations in 40 CFR parts 264 and 279 may incorporate these RCRA provisions and the response-planning requirements of other applicable Federal regulations, into their facility-response plans.

4. EPCRA or SARA Title III

EPCRA requires LEPCs to develop local emergency response plans for their community and review them at least annually. Under EPCRA, facilities are required to notify the SERC and LEPC if they have "extremely hazardous substances" present above threshold planning quantities. In addition, upon request of the SERC or LEPC, the facility is required to provide the LEPC with any information necessary to develop and implement the LEPC plan. Because of this requirement that certain facilities participate in emergency planning under EPCRA, it is likely that some overlap may exist with response plan requirements outlined in today's proposal.

The OPA Conference report stated that owners or operators of facilities subject to this regulation should ensure that facility response plans are consistent with plans required by other programs. See OPA Conference Report, H.R. Rep. No. 101-653, 101st Cong., 2d Sess. 1991 at p. 151. Therefore, a facility response plan should be consistent with the LEPC plan for the community in

which the facility is located. To ensure such coordination, facility owners or operators should review the appropriate LEPC plan. In addition, upon request of the LEPC or SERC, the facility should provide a copy of the response plan to the LEPC.

5. Clean Air Act

Under section 112(r) of the Clean Air Act (CAA), as amended, owners and operators of facilities with "regulated substances" above a specified threshold quantities will be required to prepare risk management plans (RMPs), which must include a hazard assessment (including, among other things, an evaluation of worst-case accidental releases), a prevention program, and a response program. Owners and operators are to provide a copy of the RMPs to the State, local planning and response authorities, and the Chemical Safety and Hazard Investigation Board.

Section 112(r)(7) of the CAA requires that the hazard assessment evaluate worst case accidental releases, estimate potential release quantities, and determine downwind effects including potential exposures to affected populations. Owners or operators must also develop an emergency response program that includes specific actions to be taken in response to a release including procedures for notifying the public and response agencies, emergency health care, and employee training measures. EPA is currently developing regulations to implement the new CAA requirements, including a list of regulated substances and threshold quantities.

EPA anticipates that facilities affected by both regulations can prepare one response plan that meets the Oil Pollution Prevention regulation requirements for oil and the Clean Air Act requirements for chemicals. EPA plans to develop guidance to assist facilities in this respect and requests comment from facilities affected by both regulations on whether the planning requirements can be met in a single plan.

V. Proposed Revisions to Existing 40 CFR Part 112 Plan Requirements

EPA proposes to clarify the requirement at § 112.7(d) for a facility owner or operator to provide a strong oil spill contingency plan when the installation of appropriate containment or diversionary structures or equipment to prevent discharged oil from reaching U.S. waters is determined to be impracticable. As proposed in § 112.7(d)(1), reference to a strong oil spill contingency plan is replaced with reference to the facility response plan as

described in proposed § 112.20. A response plan prepared under such circumstances need not be submitted to the RA unless otherwise required by the rest of today's proposed rule, but, would be maintained at the facility with the SPCC Plan. No change is proposed to the circumstances that trigger the requirement to provide such a plan.

The Agency proposes several additional regulatory changes recommended in the May 13, 1988, report by the interagency SPCC Task Force formed in response to the Ashland Oil spill and a subsequent report by the General Accounting Office (GAO) entitled "Inland Oil Spills" (GAO/RCED-89-65). These proposed changes include requiring the SPCC Plan to address training and methods of ensuring against brittle fracture. In addition, the Agency proposes revisions to: (1) Give RAs authority to require amendment, modification, and submission of a Plan when it does not meet the requirements of 40 CFR part 112; (2) give RAs authority to require preparation of Plans by owners or operators of previously exempted facilities when necessary to achieve the goals of the CWA; and (3) require submission of the Plan when an owner or operator invokes a waiver to certain technical requirements of this regulation. The proposed revisions would apply to all regulated facilities unless otherwise noted, not just those facilities that are subject to the proposed response plan requirements under new CWA section 311(j)(5) (i.e., "substantial harm" facilities).

For more information on the basis for the proposed regulatory changes discussed below, see the "Technical Background Document to Support the Phase Two Oil Pollution Prevention Rulemaking," available for inspection in room M2427 at the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 [Docket Number SPCC-2P].

A. Prevention Training

Data from ERNS indicate that a significant number of oil discharges are caused by operator error. In 1989, ERNS spill report data show that human error was the cause of 12.3 percent of all spills at fixed facilities. Operator error can take many forms. One of the most common operating errors is failure to close valves, which can lead to large spills when oil products are subsequently transferred in bulk. For example, in 1988, over 336,000 gallons of oil were released as a result of a valve that was left open by a facility worker at an Ashland Chemical Company facility in Arkansas Pass, Texas.

Overfilling due to operator error during transfers is another common cause of spills. The overfilling of a tank at the Colonial Pipeline facility in Greensboro, GA in 1989 resulted in an oil release of 210,000 gallons.

EPA believes that operator error is more likely to be a factor in causing spills where operations regularly involve transfers of oil products (e.g., filling of tanks and related equipment, and loading and unloading of vehicles, tank cars, and vessels to or from tanks). Incidents that involve operator error where large quantities of oil products are transferred can lead to greater amounts of oil being released to navigable waters.

Proper training of employees involved with transfer operations at oil storage and handling facilities can reduce the occurrence of operator-related spills and reduce the severity of impacts from spills that do occur. Training, therefore, is important for the safe and proper functioning of a facility and encourages up-to-date planning for spill control and response. Training courses help sharpen operating and response skills, introduce the latest ideas and techniques, and promote interaction with the emergency response organization and familiarity with the SPCC Plan. Furthermore, sections 311(f)(5) and 311(j)(7) of the CWA, added by the OPA, reinforce the importance of training. EPA recognizes that the amount of facility-specific training should vary depending on the complexity of operations (e.g., number of tanks and transfer points, throughput, presence of sophisticated pumping or switching equipment, etc.) at regulated facilities. For certain types of regulated facilities, characterized by small-scale, relatively simple operations involving aboveground storage tanks, the need for extensive facility-specific training is less critical.

The current Oil Pollution Prevention regulation provides that owners or operators are responsible for properly instructing their personnel in the operation and maintenance of equipment to prevent discharges of oil and in applicable pollution control laws and regulations. The Phase One NPRM proposes requiring all personnel to participate in yearly training exercises. It also proposes to require that training be administered to new personnel within one week of beginning work. Additionally, the Occupational Safety and Health Administration (OSHA) requires that personnel who are expected to respond to and control hazardous materials discharges undergo formal worker health and safety training before starting work and receive refresher training at regular intervals.

OSHA considers petroleum products and gases to be hazardous materials.

EPA proposes in § 112.7(f) to require that owners or operators of facilities that transfer or receive greater than or equal to 10,000 gallons of oil in a single operation more than twice per month on average or greater than or equal to 50,000 gallons in a single operation more than once per month on average would be required to initiate a training program as follows:

- All employees who are involved in oil-handling activities, such as the operation or maintenance of oil storage tanks or the operation of equipment related to storage tanks, would be required to receive 8 hours of facility-specific training within one year of the effective date of this regulation or the date that the facility becomes subject to this requirement.

- In subsequent years, employees would be required to undergo 4 hours of refresher training.

- Employees hired after the training program has been initiated, however, would be required to receive 8 hours of facility-specific training within one week of starting work and 4 hours each subsequent year.

The proposed facility-specific training includes, but is not limited to, the following areas: training in correct equipment operation and maintenance, general facility operations, discharge prevention laws and regulations, and the contents of the facility's SPCC Plan. Such facility training would be documented in the facility response plan.

These proposed training requirements are in addition to any health and safety training requirements that regulated facilities may be subject to under OSHA regulations at 29 CFR 1910.120 and under identical worker protection standards at 40 CFR part 311 that apply to employees in States without OSHA-approved State plans.

EPA regards 8 hours of facility-specific training as a minimum training requirement for facilities characterized by complex operations involving the transfer and storage of oil. For these facilities, additional facility-specific training may be necessary to ensure that employees are adequately prepared to respond to spills.

EPA recognizes that many facilities already have spill prevention training programs that meet or exceed the levels proposed in § 112.7(f). Such facilities would not be required to implement additional training measures.

As proposed, the training requirements would apply only to facilities that transfer large quantities of oil on a regular basis and not to smaller

or less active transfer facilities, where the risk of the discharge of significant quantities of oil to navigable waters may be less. EPA requests comment on the appropriateness of the transfer frequency and amount criteria for a facility to be subject to the proposed training requirements. EPA also requests comment on the appropriateness of restricting the training requirements to those facilities determined to have the potential to cause "substantial harm" to the environment as discussed in Section III.A of this preamble. The Agency solicits information on the current practices at various types of regulated facilities and comment about the amount of facility-specific training that is appropriate for personnel at different types and sizes of facilities. In addition, EPA requests comment on whether the 8-hour minimum requirement for new employees is too high for certain types of facilities, such as service stations. Also, EPA requests comment on the appropriate level of annual refresher training at small facilities that experience little or no employee turnover from year to year.

EPA considered allowing facilities to maintain current training practices, with no mandatory minimum training hour requirements. However, this option may not be sufficient to alleviate the problem of spills related to human error.

In addition, employees are required to participate in unannounced drills, which tests the facility response plan, on an annual basis. Drill organizers should limit the number of people who know about the exercise. Drills should be carefully planned out and response teams notified in advance of sounding appropriate alarms. The actions taken by the response team during the drill should be noted and addressed in a debriefing session to follow the exercise. EPA proposes that such unannounced drills shall be recorded in the facility response plan.

B. Ensuring Against Brittle Fracture

The failure of Ashland Oil Company's four million gallon aboveground storage tank in January 1988 was the result of brittle fracture. As illustrated by the collapse of this tank, brittle fracture may cause sudden and catastrophic tank failure, resulting in potentially serious damage to the environment and loss of oil. In the aftermath of the Ashland Oil spill, EPA and industry representatives identified a basic set of conditions that seek to identify risk of brittle fracture, including shell temperature, the level of tank contents, and the presence of existing surface flaw. Reported cases of tank failure due to brittle fracture have occurred after tank erection, during the

performance of a hydrostatic test (such as the failure of a storage tank at ESSO's refinery in Fawley, U.K., in 1952), during the first filling in cold weather, after a change to lower temperature service, such as was the case in the Ashland Oil spill, or after a repair or alteration. (see p. 5-28 the "Technical Background Document to Support the Phase Two Oil Pollution Prevention Rulemaking," available for inspection in room M2427 at the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 [Docket Number SPCC-2P]).

Consequently, EPA proposes in § 112.7(i) to require facility owners or operators to evaluate their field-constructed tanks for the risk of failure due to brittle fracture, by adhering to appropriate industry standards contained in API Standard 653 entitled Tank Inspection, Repair, Alteration, and Reconstruction. Section 112.7(i) incorporates by reference section 3 (Brittle Fracture Consideration) of API Standard 653. This incorporation by reference will be submitted for approval to the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of API Standard 653 may be inspected at the Superfund Docket, U.S. Environmental Protection Agency, 401 M Street, SW., room M2427, Washington, DC. Also, EPA proposes in § 112.7(j) a conforming change to reflect the addition of the proposed brittle fracture requirements in § 112.7(i).

The evaluation for the risk of failure due to brittle fracture would be triggered by a repair or alteration to the tank, or a change in service. As defined in § 112.2 of the proposed rule, "repair" means any work necessary to maintain or restore a tank or related equipment to a condition suitable for safe operation. Typical examples include the removal and replacement of material (such as roof, shell, or bottom material, including weld metal) to maintain tank integrity; the re-leveling or jacking of a tank shell, bottom, or roof; the addition of reinforcing plates to existing shell penetrations; and the repair of flaws, such as tears or gouges, by grinding or gouging followed by welding. As defined in § 112.2 of the proposed rule, "alteration" means any work on a tank or related equipment involving cutting, burning, welding, or heating operations that changes the physical dimensions or configuration of a tank. Typical examples include the addition of manways and nozzles greater than 12-inch nominal pipe size and an increase or decrease in tank shell height.

Under API standard 653, evaluation of the potential hazard for brittle fracture

involves a review of a tank's construction materials, operational history, repairs, material stored, and other factors identified as useful in predicting a tank's performance. The evaluation also could result in more extensive testing (such as a hydrostatic test). A flowchart of brittle fracture considerations contained in API Standard 653 is shown in Appendix H to the rule. In accordance with API Standard 653 and good engineering practice, if the evaluation indicates that the tank is at risk of failure due to brittle fracture, the owner or operator would be required to rerate the tank or modify the tank's operation to prevent failure. The Agency proposes the approach described above because it is consistent with current industry standards and will apply to a greater range of industry tanks at risk.

EPA does not propose to require that shop-fabricated tanks be evaluated for brittle fracture. Such tanks are generally not as susceptible to brittle fracture failure after a change in service because design criteria are tailored to meet the needs of many operating conditions including variances in pressures, material stored, and temperature. In addition, shop-fabricated tanks are generally much smaller ranging in capacity from 3,000 to 31,500 gallons, and therefore are less prone to suffer catastrophic failure due to brittle fracture. Field-constructed tanks are usually designed and built to meet a specific type of operating condition and can be much larger in size. Shop-fabricated tanks may present a lower risk of causing substantial harm to the environment as a result of discharges to U.S. waters or adjoining shorelines than larger, field-constructed tanks. The Agency requests comments and data on the proposed requirement to evaluate field-constructed tanks for the risk of failure due to brittle fracture under certain circumstances.

As an alternative, the Agency considered requiring all tanks to undergo a full hydrostatic test to determine their potential for brittle fracture. Under this option, a hydrostatic test would have to be performed even on tanks that are not considered prone to brittle fracture by industry standards. Moreover, existing tanks would have to be taken out of service during testing, causing potential disruption to facility operations. Also, EPA considered not requiring facilities to perform any additional evaluations or tests beyond those required for other regulations. No other regulations were identified, however, that require tests to specifically evaluate the potential for brittle fracture.

C. SPCC Plan Amendment

Section 112.4 of the current Oil Pollution Prevention regulation requires the owner or operator of a facility to submit the facility's SPCC Plan to the RA when the facility has experienced either a discharge of more than 1,000 gallons or two reportable spill events within a twelve month period. The RA can then review the Plan and may require that the Plan be amended. Under current § 112.3(e), a facility owner or operator must make the Plan available to the Agency for on-site review, but the rule does not provide explicit authority for the RA to require Plan amendment except under the circumstances described in § 112.4. Because Plan amendment may be necessary to protect navigable waters and adjoining shorelines even before spill events occur, EPA proposes to give the RA specific authority to require Plan submission and amendment at any time. Proposed § 112.4(d) amends the existing language to incorporate this provision and states that the RA may require Plan amendment whenever the Plan does not meet the requirements of 40 CFR part 112 or when Plan amendment is necessary to prevent and control discharges. This broader authority would include the right of the RA to require amendment following plan review; the rule would clarify the RA's authority to require amendments in other situations not specified under the existing regulation.

D. Authority To Require Preparation of Plans

Although the CWA provides EPA broad authority to regulate non-transportation-related onshore facilities, current § 112.1(d) exempts certain facilities. Under the proposed Phase One rule, the § 112.1(d) exemptions would be broadened to include totally buried underground storage tanks subject to the requirements of EPA's underground storage tank regulation at 40 CFR part 280. Under today's proposal, § 112.1(g) would be added to allow the RA to require otherwise exempted facilities, on a case-by-case basis, to prepare and implement SPCC Plans where needed to protect navigable waters and adjoining shorelines. Thus, a facility that would be exempted from the Oil Pollution Prevention regulation on the basis of its underground storage tanks being subject to 40 CFR part 280 may nevertheless have to comply with the requirements of the Oil Pollution Prevention regulation at the discretion of the RA. The RA would exercise this discretionary authority when necessary to carry out the purposes of the CWA.

The determination would be based on the presence of environmental concerns not adequately addressed under the UST regulation.

Based on the requirements in the UST regulation, EPA expects that it will be necessary for the RA to exercise this authority in very few cases. Moreover, some of the SPCC Plan requirements that apply to aboveground tank systems would not represent good engineering practice for certain underground tanks. For example, the requirement for secondary containment as described in current § 112.7(c) is not considered good engineering practice for completely buried underground tanks.

Following a preliminary determination, the RA will provide a written notice to the facility owner or operator stating the reasons why the facility needs to prepare a SPCC Plan. The owner or operator would have the opportunity to provide information and data and to consult with the Agency about the need to prepare and submit a plan. Following this consultation, the RA will make a final determination on whether the facility is required to prepare and implement a SPCC Plan. If the RA makes a final determination that a SPCC Plan is necessary to carry out the purposes of the CWA, the owner or operator must prepare the plan within six months of the RA's decision and implement the Plan as soon as possible, but not later than one year after the final determination has been made.

E. Submission of Plans That Contain a Waiver of Technical Requirements

Under the proposed Phase One regulation, a facility's SPCC Plan need not conform to certain technical requirements of 40 CFR part 112 if equivalent protection is provided. No provision was made in the Phase One proposal, however, for notification to EPA when a facility owner or operator invokes this waiver. Proposed § 112.7(a)(2) of today's proposed rule would require the owner or operator to submit the Plan to the RA in this circumstance. Thus, EPA staff will have the opportunity to review the Plan and determine whether the measures described in the Plan do indeed provide equivalent protection. The Agency solicits comment on whether submission of the entire plan for the RA to make this determination is necessary.

VI. Other Technical Considerations Not Proposed

EPA is examining several additional recommendations made in the SPCC Task Force Report and the GAO report on inland oil spills, including provisions relating to: Plant security;

corrosion protection; lightning strike protection; leak detection; and certification of tank installation plans. EPA is not proposing regulatory changes at this time but is soliciting comment and cost information on these considerations.

Improvement of plant security can reduce the number of discharges that occur as a result of vandalism. Section 112.7(e)(9) of the current Oil Pollution Prevention regulation contains a number of requirements concerning plant security, including provisions on fencing and lighting. The Agency requests comment on the need for additional measures to mitigate potential environmental harm posed by discharges from different types of facilities, and whether certain provisions should be discretionary for any or all facilities.

Metallic aboveground storage tanks are susceptible to corrosion, which may lead to leakage or the discharge of a tank's entire contents. For metallic aboveground tanks, the primary corrosive concern involves tank bottoms and the types of foundations constructed for them. The UST regulation at 40 CFR 280.20 requires owners or operators of underground storage tanks to ensure that releases due to corrosion are prevented for as long as the tank system is used to store regulated substances, such as petroleum products. Cathodic protection is a common method used to protect USTs from corrosion (40 CFR 280.31). The Agency solicits comment and cost data on the use of cathodic protection to prevent corrosion on aboveground storage tanks. EPA also requests comment and cost effectiveness data on other methods of preventing leaks due to corrosion.

Lightning strikes on aboveground storage tanks and fires resulting from the strikes can contribute to discharges of oil. Although various industry groups have published recommended practices and precautionary measures for owners or operators to follow to avoid lightning strikes, there are currently no Federal regulations in effect concerning lightning strike protection for aboveground storage tanks. EPA requests comment on the costs and benefits of installing lightning protection systems, such as an air terminal system, overhead ground wire system, the Faraday Cage system, or combinations of these systems on aboveground storage tanks.

Early detection of small oil leaks from above ground storage tanks may alert owners or operators to needed repairs or other spill prevention or mitigation measures and thus prevent substantial

environmental damage and save the expense of cleaning up larger quantities of oil that may subsequently leak from the tanks. Section 112.7(e)(2)(vi) of the current Oil Pollution Prevention regulation requires operating personnel to frequently observe the outside of a tank for signs of deterioration, leaks, or accumulation of oil inside diked areas. Small leaks near the bottom of a tank, however, often are hard to detect visually. The Agency is therefore requesting comment and cost effectiveness information on other leak detection methods for aboveground tanks, such as ultrasonic testing and inventory reconciliation. Also, the Agency requests comment on the appropriateness of testing underground piping for leaks and data on methodologies.

The current Oil Pollution Prevention regulation requires facility owners or operators to have a Professional Engineer review and certify that their SPCC Plans have been prepared in accordance with good engineering practices. This requirement, however, does not address specific facility procedures such as tank installation. UST regulations at 40 CFR 280.20(e), on the other hand, require certification of compliance with proper installation practices and of the qualifications of tank installers. The Agency requests comment on appropriate methods to ensure that aboveground tanks are properly installed, such as certification of installation plans and/or installation monitoring by a professional engineer or other qualified individual.

VII. Regulatory Analyses

A. Executive Order 12291

Executive Order (E.O.) 12291 requires that regulations be classified as major or non-major for purposes of review by the Office of Management and Budget (OMB). According to E.O. 12291, major rules are regulations that are likely to result in:

- (1) An annual effect on the economy of \$100 million or more; or
- (2) A major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or
- (3) Significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

An economic analysis performed by the Agency, available for inspection in room M2427 at the U.S. Environmental Protection Agency, 401 M Street, SW.,

Washington, DC 20460, shows that this proposed rule is major because it would result in estimated costs to affected facilities of approximately \$140.6 million during the first year that the rule is in effect and approximately \$60.9 million in each subsequent year. At a 10-percent interest rate over 10 years, the annualized costs are \$73.2 million. Of the total estimated costs, \$93.7 million of the first-year costs and \$54.0 million of the subsequent-year costs result from the facility response plan requirements proposed in § 112.20. Approximately \$12.6 million of the

first-year costs and \$6.3 million of the subsequent-year cost are attributable to the other technical requirements. The proposed revisions pertaining to enforcement of the Oil Pollution Prevention regulation (i.e., amendments to the SPCC Plan, notification of a waiver of technical requirements, and preparation of SPCC Plans by previously exempted facilities) are estimated to result in costs of \$2.3 million in the first year and \$0.5 million in subsequent years. In addition, it is estimated that facilities will expend \$32.0 million in the first year to read and understand the

proposed revisions. This economic analysis estimates costs and benefits for facilities currently subject to the Oil Pollution Prevention regulation. The first-year, subsequent-year, and annualized costs of the proposed revisions to affected facilities are presented in Table 1. The estimates presented assume that facility response plans reduce the costs and damages caused by oil spills by 30 percent, which is one of the key assumptions in the analysis.

TABLE 1.—TOTAL COST TO AFFECTED FACILITIES OF THE PROPOSED RULEMAKING

Proposed revision	First-year costs	Subsequent-year costs	Annualized value of total costs
Rule familiarization	\$32.0 million	\$0	\$5.2 million.
Facility response plan	\$93.7 million	\$54.0 million	\$59.8 million.
Training	\$11.0 million	\$4.7 million	\$5.7 million.
Brittle fracture	\$1.6 million	\$1.6 million	\$1.6 million.
Amendments to SPCC plan	\$12,900	\$12,900	\$12,900.
Notification of waiver of technical requirements	\$1.5 million	\$147,250	\$0.3 million.
Preparation of SPCC plans by previously exempted facilities	\$0.8 million	\$0.3 million	\$0.4 million.
Total	\$140.6 million	\$60.9 million	\$73.2 million.

EPA also is estimated to incur costs to process, review, and approve facility response plans and to process and review SPCC Plans and other information submitted as a result of the three proposed revisions related to enforcing the regulation. EPA estimates that it will process approximately 6,500 response plans and review and approve approximately 2,000 response plans in the first two years after the revisions take effect at a cost of \$1.2 million in the first year and \$1.1 million in the second year. EPA also will incur costs of \$3.1 million in the first year and \$0.5 million each year thereafter to implement the other proposed revisions. At a 10-percent interest rate over 10 years, the annualized costs to EPA are \$1.2 million.

The Regulatory Impact Analysis (RIA) prepared in support of this rule also

includes an assessment of the environmental benefits associated with the proposed revisions. This benefit estimate includes only the benefits of avoided clean-up costs, value of lost product, and avoided natural resource damages as a result of the prevention of oil spills or the mitigation of the severity of spills that do occur. Other damages caused by oil spills, such as damage to private property, lost profit by business, public health risks, and foregone existence/option value have not been quantified. EPA recognizes that the methodologies to value certain benefits of avoiding oil spills or mitigating their effects are contentious and new or revised methodologies currently are under study by other government agencies. For illustrative purposes, the Agency has presented monetary estimates of these benefits of

the proposed rule in the Regulatory Impact Analysis based on currently available data. The cost effectiveness of the proposed revisions also are presented in terms of the total estimated cost to society per unit volume of spilled oil addressed by the proposed revisions. This measure of cost effectiveness is calculated by dividing the total estimated costs to affected facilities and the government by the total number of barrels (or gallons) of oil that is estimated not to be spilled as a result of the proposed revisions or, if spilled, is addressed more effectively as a result of the proposed revisions. Table 2 presents the cost effectiveness of the proposed revisions based on the assumption that facility response plans reduce the costs and damages caused by oil spills by 30 percent.

TABLE 2.—COMPARISON OF ESTIMATED TOTAL ANNUALIZED COSTS AND BENEFITS

Proposed revision	Estimated costs per avoided volume of spilled oil at 30 percent level of effectiveness for response plans	Estimated costs per avoided barrel of spilled oil at 57 percent level of effectiveness for response plans
Rule familiarization	Not Estimated	Not Estimated.
Facility response plan	\$30/gallon	\$16/gallon.
Training	\$1,271/barrel	\$669/barrel.
Brittle fracture	\$81/gallon	
Amendments to SPCC plan	\$3,415/barrel	
Notification of waiver of technical requirements	\$31/gallon	\$31/gallon.
Preparation of SPCC plans by previously exempted facilities	\$1,297/barrel	\$1,303/barrel.
Total	Not Estimated	Not Estimated.

TABLE 2.—COMPARISON OF ESTIMATED TOTAL ANNUALIZED COSTS AND BENEFITS—Continued

Proposed revision	Estimated costs per avoided volume of spilled oil at 30 percent level of effectiveness for response plans	Estimated costs per avoided barrel of spilled oil at 57 percent level of effectiveness for response plans
Notification of waiver of technical requirements	Not Estimated	Not Estimated.
Preparation of SPCC plans by previously exempted facilities	Not Estimated	Not Estimated.

Alternative assumptions about the effectiveness of facility response plans yield different estimates of the net benefits. For example, estimated costs of facility response plans equal estimated benefits at a 57 percent effectiveness level. At levels of effectiveness less than 57 percent, estimated costs of the response plan requirement exceed estimated benefits. Conversely, at effectiveness levels greater than 57 percent, estimated benefits of the response plan requirement exceed the estimated costs. The cost effectiveness of the proposed revisions also is presented in Table 2 at an assumed effectiveness level of 57 percent. This proposed rule has been submitted to OMB for review as required by E.O. 12291.

B. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 requires that a Regulatory Flexibility Analysis be performed for all rules that are likely to have a "significant impact on a substantial number of small entities." To determine whether a Regulatory Flexibility Analysis was necessary for this proposed rule, a preliminary analysis was conducted. The results of the preliminary analysis indicate that this proposed rule will not have significant adverse impacts on small businesses because small businesses are unlikely to be affected by the facility response planning, training, or brittle fracture requirements, which account for the majority of the total costs of the proposed rulemaking (see the "Regulatory Impact Analysis of the Proposed Phase Two Revisions of the Oil Pollution Prevention Regulation," Chapter 8, September 1992, available for inspection in room M2427 at the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460). Therefore, EPA certifies that this proposed rule is not expected to have a significant impact on small entities, and therefore that no Regulatory Flexibility Analysis is necessary.

C. Paperwork Reduction Act

The information collection requirements in this proposed rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44

U.S.C. 3501 et seq. An Information Collection Request (ICR) has been prepared by EPA (ICR No. 1630.01) and a copy may be obtained from Sandy Farmer, Information Policy Branch (PM-223Y), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460, or by calling (202) 260-2740.

The collection of information required to prepare facility response plans is estimated to have a public reporting burden varying from 1 to 256 hours per response in the first year, with an average of 5 hours per response, and to require an average of 0.65 hours per recordkeeper annually. This includes time to review instructions and guidance, search existing data sources, gather and maintain the data needed, and complete and review the collection of information. In subsequent years, the facility response plan requirement is estimated to have a public reporting burden that varies from 0-99 hours per response, with an average of 1 hour per response, and to require an average of 0.6 hours per recordkeeper annually.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223Y), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA." The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

List of Subjects in 40 CFR Part 112

Fire prevention, Flammable materials, Materials handling and storage, Oil pollution, Oil spill response, Petroleum, Reporting and recordkeeping requirements, Tanks, Water pollution control, Water resources.

Dated: January 19, 1993.

William K. Reilly,
Administrator.

For the reasons set out in the preamble, part 112, title 40, chapter I of

the Code of Federal Regulations, as proposed to be revised at 56 FR 54630, October 22, 1991, is proposed to be amended as follows:

PART 112—OIL POLLUTION PREVENTION

1. The authority citation for part 112 is revised to read as follows:

Authority: 33 U.S.C. 1321 and 1361; E.O. 12777 (3 CFR, 1991 Comp., p. 351).

2. Section 112.1, as proposed at 56 FR 54630, is amended by revising paragraphs (d) introductory text and (d)(4), and by adding paragraph (g) to read as follows:

§ 112.1 General applicability and notification.

* * * * *

(d) Except as provided in paragraphs (e) and (g) of this section and the first sentence of § 112.7(a)(3), this part does not apply to:

* * * * *

(4) Underground storage tanks, as defined in § 112.2(v), at any facility, where such tanks are subject to the technical requirements of 40 CFR part 280, except that such tanks shall be marked on the facility diagram as provided in § 112.7(a)(3).

* * * * *

(g) Notwithstanding paragraph (d) of this section, the Regional Administrator may require any facility subject to the jurisdiction of EPA under section 311(j) of the CWA to prepare and implement an SPCC Plan or applicable parts thereof.

(1) Following a preliminary determination, the Regional Administrator will provide a written notice to the facility owner or operator stating the reasons why the facility owner or operator needs to prepare an SPCC Plan.

(2) The owner or operator may provide information and data and may consult with the Agency about the need to prepare and submit a Plan.

(3) Following this consultation, the Regional Administrator will make a final determination regarding whether the facility is required to prepare and implement an SPCC Plan.

(4) If the Regional Administrator makes a final determination that an SPCC Plan is necessary to carry out the purposes of the CWA, the owner or operator must prepare the Plan within six months of that determination and implement the Plan as soon as possible, but not later than one year after the final determination has been made.

3. Section 112.2, as proposed at 56 FR 54630, is amended by removing the paragraph designations (a) through (y), and inserting the following new definitions in alphabetical order, to read as follows:

§ 112.2 Definitions.

Adverse weather means the weather conditions that make it difficult for response equipment and personnel to cleanup or remove spilled oil.

Alteration means any work on a tank or related equipment involving cutting, burning, welding, or heating operations that changes the physical dimensions or configuration of a tank.

Complex means a facility possessing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under section 311(j) of the CWA.

Contracts or other approved means include:

(1) A written contractual agreement with a response contractor that identifies and ensures the availability of the necessary personnel or equipment within appropriate response times;

(2) A written certification by the owner or operator that the necessary personnel and equipment resources, owned or operated by the facility owner or operator, are available to respond to a discharge within appropriate response times;

(3) Active membership in a local or regional oil spill removal organization that has identified and ensures adequate access through such membership to necessary personnel and equipment to respond to a discharge within appropriate response times in the specified geographic areas; or

(4) Other specific arrangements approved by the Regional Administrator upon request of the owner or operator.

Injury means a measurable adverse change, either long- or short-term, in the chemical or physical quality or the viability of a natural resource resulting either directly or indirectly from exposure to a discharge of oil, or exposure to a product of reactions resulting from a discharge of oil.

Maximum extent practicable means the limitations used to determine oil spill planning resources and response times for on-water recovery, shoreline protection, and cleanup for worst case discharges from onshore non-transportation-related facilities in adverse weather. The appropriate limitations for such planning are available technology and the practical and technical limits on an individual facility owner or operator.

Repair means any work necessary to maintain or restore a tank or related equipment to a condition suitable for safe operation.

Worst case discharge for an onshore non-transportation-related facility means the largest foreseeable discharge in adverse weather conditions, based on the factors described in appendix E to this part.

4. Section 112.4, as proposed at 56 FR 54633, is amended by redesignating paragraph (d) as paragraph (d)(1), by revising newly designated paragraph (d)(1), and by adding a new paragraph (d)(2) to read as follows:

§ 112.4 Amendment of Spill Prevention, Control and Countermeasures Plan by Regional Administrator.

(d) (1) The Regional Administrator may require the owner or operator of any facility subject to this part to submit the information listed in paragraphs (a)(1) through (a)(8) of this section and such other information as the Regional Administrator may request. After review of the information submitted, or after on-site review of a facility's Plan, the Regional Administrator may require the owner or operator of such facility to amend the Plan if the Plan does not meet the requirements of this part or if amendment of the Plan is necessary to prevent or control discharges of oil from such facility into or upon the waters described in § 112.1(a) of this part.

(2) After review of the materials submitted by the owner or operator of a facility as required in § 112.7(d) of this part, the Regional Administrator may approve the Plan or require amendment of the Plan.

5. Section 112.7, as proposed at 56 FR 54634, is amended by revising paragraphs (a)(2), the introductory text of paragraph (d), and paragraphs (d)(1), (f)(1), and (i) and by adding a new paragraph (j) to read as follows:

§ 112.7 Spill Prevention, Control, and Countermeasures Plan general requirements.

(a) * * *

(2) The Plan may deviate from the requirements in paragraph (c) of this section and §§ 112.8, 112.9, 112.10, and 112.11, where applicable to a specific facility, provided equivalent protection is provided by some other means of spill prevention, control, or countermeasures. Where the Plan does not conform to the applicable requirements of paragraph (c) of this section or §§ 112.8, 112.9, 112.10, and 112.11, the Plan shall state the reasons for nonconformance and describe in detail alternate methods and how equivalent protection will be achieved. The owner or operator of the facility shall submit the Plan to the Regional Administrator together with a transmittal letter describing how the Plan contains equivalent protection measures in lieu of certain requirements in 40 CFR part 112. If the Regional Administrator determines that the measures described in the Plan do not provide equivalent protection, the Regional Administrator may require amendment of the Plan, following the procedures in § 112.4 (e) and (f).

(d) When it is determined that the installation of structures or equipment listed in § 112.7(c) to prevent discharged oil from reaching the navigable waters is not practicable from any facility, the owner or operator shall clearly demonstrate such impracticability; conduct integrity testing of tanks every five years at a minimum; conduct integrity and leak testing of the valves and piping every year at a minimum; and providing the following:

(1) The facility response plan described in § 112.20.

(f) *Personnel, training, and spill prevention procedures.* (1) Owners or operators of facilities, which transfer or receive greater than or equal to 10,000 gallons of oil in a single operation more than twice per month on average, or greater than or equal to 50,000 gallons in a single operation more than once per month on average, shall be responsible for the proper instruction of their personnel in the operation and maintenance of equipment to prevent discharges of oil and in applicable pollution control laws, rules, and regulations.

(i) All personnel who are involved in oil-handling activities shall receive at least 8 hours of training by [insert date one year after the effective date of the final rule], and at least 4 hours in subsequent years. Such training

includes, but is not limited to, subjects such as correct equipment operation and maintenance, general facility operations, discharge prevention laws and regulations, and the contents of the facility's SPCC Plan.

(ii) In the case of new employees, 8 hours of training shall be given to such personnel within the first week of their employment.

(iii) All such personnel shall also participate in unannounced drills, to be conducted at least annually.

* * *

(i) If a field-constructed aboveground tank undergoes a repair, alteration, or a change in service, the facility owner or operator shall evaluate the tank for risk of failure due to brittle fracture, and, as necessary, take appropriate action in accordance with Section 3 of Tank Inspection, Repair, Alteration, and Reconstruction, January 1991, American Petroleum Institute, API Standard 653. This incorporation by reference will be submitted for approval to the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from the American Petroleum Institute, 1220 L Street NW., Washington DC 20005. Copies may be inspected at the Superfund Docket, U.S. Environmental Protection Agency, 401 M Street, SW., room M2427, Washington, DC. A flowchart of brittle fracture considerations contained in API Standard 653 is contained in appendix H to this part.

(j) In addition to the minimal prevention standards listed under § 112.7 (c), (e), (f), (g), (h), and (i), sections of the Plan shall include a complete discussion of conformance with the applicable requirements and other effective spill prevention and containment procedures listed in §§ 112.8, 112.9, 112.10, and 112.11 (or, if more stringent, with State rules, regulations, and guidelines).

6. Section 112.20 is added to read as follows:

§ 112.20 Facility response plans.

(a) (1) The owner or operator of any non-transportation-related onshore facility that, because of its location, could reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines shall prepare a facility response plan and shall submit a response plan that satisfies the requirements of this section to the Regional Administrator.

(2) A facility shall be subject to the requirements of paragraph (a)(1) of this section if it satisfies the criteria in paragraph (f)(1) of this section or if the

Regional Administrator makes a determination pursuant to paragraph (b) of this section.

(i) For a facility that is in operation on or before February 18, 1993, and is required to prepare and submit a response plan based on the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in appendix G to this part, to the Regional Administrator on or before February 18, 1993.

(ii) For a newly constructed facility that commences operation after February 18, 1993, and is required to prepare and submit a response plan based on the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in appendix G to this part, to the Regional Administrator prior to the start of operations.

(iii) For a facility required to prepare and submit a response plan after February 18, 1993, as a result of a planned change in design, construction, operation, or maintenance that renders the facility subject to the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in appendix G to this part, to the Regional Administrator before the portion of the facility undergoing change commences operations.

(iv) For a facility required to prepare and submit a response plan after February 18, 1993, as a result of an unplanned event or change in facility characteristics that renders the facility subject to the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in appendix G to this part, to the Regional Administrator within six months of the unplanned event or change.

(3) In the event the owner or operator of a facility that is required to prepare and submit a response plan uses an alternative formula to one contained in appendix C to this part to evaluate the criterion in paragraph (f)(1)(ii)(B) or (f)(1)(ii)(C) of this section, the owner or operator shall attach documentation to the response plan cover sheet contained in appendix G to this part that demonstrates the reliability and analytical soundness of the alternative formula.

(b)(1) The Regional Administrator may at any time require the owner or operator of any non-transportation-

related onshore facility to prepare and submit a facility response plan under this section based on the factors in paragraph (f)(2) of this section. If the Regional Administrator notifies in writing the owner or operator of the requirement to prepare and submit a response plan under this section, the owner or operator of the facility shall submit the response plan to the Regional Administrator within six months after such written notification.

(2) The Regional Administrator shall review plans submitted by such facilities to determine whether the facility could cause significant and substantial harm to the environment by the discharge of oil.

(c)(1) The Regional Administrator shall determine whether a facility, because of its location, could reasonably be expected to cause significant and substantial harm to the environment by discharging into or on the navigable waters or adjoining shorelines, based on the factors in paragraph (f)(3) of this section. If a facility is determined to have the potential to cause significant and substantial harm to the environment, the Regional Administrator shall notify in writing the owner or operator of the facility and:

(i) Promptly review the facility response plan;

(ii) Require amendments to any response plan that does not meet the requirements of this section;

(iii) Approve any response plan that meets the requirements of this section; and

(iv) Review each response plan periodically thereafter.

(2) A facility owner or operator who is notified in writing that the facility's response plan will require review and approval by the Regional Administrator and that such approval will not be forthcoming by August 18, 1993, may operate the facility without an approved response plan for up to two years from the date of plan submission in compliance with statutory requirements, provided that:

(i) The facility owner or operator certifies in writing within 30 days of such notification to the Regional Administrator that the owner or operator has ensured by contract or other approved means the availability of private personnel and equipment necessary to respond, to the maximum extent practicable, to a worst case discharge or the substantial threat of such a discharge from the facility; and

(ii) The contracts or agreements cited in the facility's certification are valid and enforceable by the parties.

(d)(1) The owner or operator of a facility determined to have the potential

to cause significant and substantial harm to the environment pursuant to paragraph (f)(3) of this section shall revise and resubmit the response plan for approval within 60 days of each facility change that materially may affect the potential for a discharge to cause significant and substantial harm to the environment, including:

(i) A change in the facility's configuration that materially alters the information included in the response plan;

(ii) A change in the type of oil handled, stored, or transferred that materially alters the required response resources;

(iii) A change in the oil spill removal organizations that provide equipment and personnel to respond to spills described in paragraph (h)(5) of this section and/or a material change in their capabilities;

(iv) A material change in the facility's spill prevention and response equipment or emergency response procedures;

(v) Any other changes that materially affect the implementation of the response plan.

(2) Except as provided in paragraph (d)(1) of this section, amendments to personnel and telephone number lists included in the response plan do not require prior approval by the Regional Administrator. Facility owners or operators shall provide a copy of such changes to the appropriate Regional Administrator as the revisions occur.

(e) If the owner or operator of a facility determines pursuant to paragraph (a)(2) of this section that its facility does not have the potential to cause substantial harm to the environment, the owner or operator shall complete and maintain at the facility the certification form contained in appendix C to this part and, in the event an alternative formula to one contained in appendix C to this part is used to evaluate the criterion in paragraph (f)(1)(ii)(B) or (f)(1)(ii)(C) of this section, the owner or operator shall attach documentation to the certification form that demonstrates the reliability and analytical soundness of the alternative formula and shall notify the Regional Administrator in writing that an alternative formula was used.

(f) (1) A facility shall be deemed to have the potential to cause substantial harm to the environment pursuant to paragraph (a) of this section, if it meets any of the following criteria applied in accordance with the flowchart contained in appendix C to this part:

(i) The facility transfers oil over water to or from vessels and has a total storage

capacity greater than or equal to 42,000 gallons; or

(ii) The facility's total oil storage capacity is greater than or equal to 1 million gallons, and one of the following is true:

(A) The facility does not have secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground storage tank within each storage area;

(B) The facility is located at a distance (as calculated using the appropriate formula in appendix C to this part or an alternative formula considered acceptable by the Regional Administrator) such that a discharge from the facility could cause injury to an environmentally sensitive area as described in appendix D to this part;

(C) The facility is located at a distance (as calculated using the appropriate formula in appendix C to this part or an alternative formula considered acceptable by the Regional Administrator) such that a discharge from the facility would shut down a public drinking water intake; or

(D) The facility has had a reportable spill in an amount greater than or equal to 10,000 gallons within the last 5 years.

(2)(i) To determine whether a facility could cause substantial harm to the environment pursuant to paragraph (b) of this section, the Regional Administrator may consider the following:

(A) Type of transfer operation;

(B) Oil storage capacity;

(C) Lack of secondary containment;

(D) Proximity to "environmentally sensitive areas" defined in Appendix D to this part and other areas determined by the Regional Administrator to possess ecological value;

(E) Proximity to drinking water intakes;

(F) Spill history; and

(G) Other site-specific characteristics and environmental factors that the Regional Administrator determines to be relevant to protecting the environment from harm by discharges of oil into navigable waters or adjoining shorelines.

(ii) Any person who believes a facility subject to this section may cause substantial harm to the environment from a discharge of oil may petition the Regional Administrator to determine whether the facility meets the criteria in paragraph (f)(2)(i) of this section. Such petition shall include a discussion of how the criteria in paragraph (f)(2)(i) of this section apply to the facility in question.

(3) To determine whether a facility could cause significant and substantial

harm to the environment, the Regional Administrator may consider the factors in paragraph (f)(2) of this section as well as the following:

(i) Proximity to environmental areas of concern defined in Appendix D to this part;

(ii) Frequency of past spills;

(iii) Proximity to navigable waters;

(iv) Age of oil storage tanks; and

(v) Other facility-specific and Region-specific information, including local impacts on public health.

(g)(1) All facility response plans shall be consistent with the requirements of the National Oil and Hazardous Substance Pollution Contingency Plan (40 CFR part 300) and applicable Area Contingency Plans, and shall be updated periodically. The facility response plan should be coordinated with the local emergency response plan developed by the local emergency planning committee under section 303 of Title III of the Superfund Amendments and Reauthorization Act of 1986. Upon request, the owner or operator should provide a copy of the facility response plan to the local emergency planning committee or State emergency response commission.

(2) The owner or operator shall review relevant portions of the National Oil and Hazardous Substance Pollution Contingency Plan and applicable Area Contingency Plan annually and revise the facility response plan to ensure consistency with these plans.

(h) A response plan shall follow the format of the model facility-specific response plan included in appendix G to this part, unless an equivalent response plan has been prepared to meet State or other Federal requirements. A response plan that does not follow the specific format in appendix G to this part shall have an emergency response action plan as specified in paragraph (h)(1) to this part and be supplemented with a cross-reference section to identify the location of the elements listed in paragraphs (h)(2) through (h)(10) of this section. In order to meet the requirements of this part, a response plan shall address the following elements, as reflected in appendix G to this part:

(1) **Emergency Response Action Plan.** The response plan shall include an emergency response action plan in the format specified below that is maintained in the front of the response plan, or as a separate document accompanying the response plan, and that includes the following information:

(i) The identity and telephone number of an emergency response coordinator who is the qualified individual having full authority, including contracting

authority, to implement removal actions;

(ii) The identity of individuals or organizations to be contacted in the event of a discharge so that immediate communications between the emergency response coordinator and the appropriate Federal official and the persons providing response personnel and equipment can be ensured;

(iii) A description of information to pass to response personnel in the event of a reportable spill;

(iv) A description of the facility's response equipment and its location;

(v) A description of response personnel capabilities, including the duties of persons at the facility during a response action and their response times and qualifications;

(vi) Plans for evacuation of the facility and surrounding communities;

(vii) A description of immediate measures to provide adequate containment and drainage of spilled oil; and

(viii) A diagram of the facility.

(2) *Facility information.* The response plan shall identify and discuss the location of the facility, the identity and tenure of the present owner and operator, and the identity of an emergency response coordinator.

(3) *Information about emergency response.* The response plan shall include:

(i) The identity of private personnel and equipment necessary to remove to the maximum extent practicable a worst case discharge and other discharges of oil described in paragraph (h)(5) of this section, and to mitigate or prevent a substantial threat of a worst case discharge;

(ii) Evidence of contracts or other approved means for ensuring the availability of such personnel and equipment;

(iii) The identity and the telephone number of individuals or organizations to be contacted in the event of a discharge so that immediate communications between the emergency response coordinator and the appropriate Federal official and the persons providing response personnel and equipment can be ensured;

(iv) A description of information to pass to response personnel in the event of a reportable spill;

(v) A description of response personnel capabilities, including the duties of persons at the facility during a response action and their response times and qualifications;

(vi) A description of the facility's response equipment, the location of the equipment, and equipment testing;

(vii) Plans for evacuation of the facility and surrounding communities;

(viii) A diagram of evacuation routes; and

(ix) A description of the duties of the emergency response coordinator identified in paragraph (h)(1) of this section, that include:

(A) Activate internal alarms and hazard communication systems to notify all facility personnel;

(B) Notify all response personnel, as needed;

(C) Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification;

(D) Notify and provide necessary information to the appropriate Federal, State, and local authorities with designated response roles, including the National Response Center, State Emergency Response Commission, and Local Emergency Planning Committee;

(E) Assess the interaction of the spilled substance with water and/or other substances stored at the facility and notify response personnel at the scene of that assessment;

(F) Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion);

(G) Assess and implement prompt removal actions to contain and remove the substance released;

(H) Coordinate rescue and response actions as previously arranged with all response personnel;

(I) Obtain authority to immediately access company funding to initiate cleanup activities; and

(J) Direct cleanup activities until properly relieved of this responsibility;

(x) Guidelines that describe procedures to identify response resources to meet the facility response plan requirements of this section are provided in appendix F to this part.

(4) *Hazard evaluation.* The response plan shall discuss the facility's known or reasonably identifiable history of discharges reportable under 40 CFR part 110 for the entire life of the facility and shall identify areas within the facility where discharges could occur and what the potential effects of the discharges would be on the affected environment. To assess the range of areas potentially affected, owners or operators shall, where appropriate, consider the distance calculated in paragraph (f)(1)(ii) of this section to determine whether a facility is located such that a

discharge could cause substantial harm to the environment.

(5) *Tiered planning scenarios.* The response plan shall include discussion of specific scenarios for:

(i) A worst case discharge, as calculated using the appropriate worksheet in appendix E to this part. In cases where the Regional Administrator determines that the worst case discharge volume calculated by the facility is not appropriate, the Regional Administrator may specify the worst case discharge amount to be used for response planning at the facility. For complexes, the worst case planning quantity shall be the larger of the amounts calculated for each component of the facility;

(ii) A discharge of 2,100 gallons or less, provided that this amount is less than the worst case discharge amount; and

(iii) A discharge greater than 2,100 gallons and less than or equal to 36,000 gallons or 10 percent of the capacity of the largest tank at the facility, whichever is less, provided that this amount is less than the worst case discharge amount. For complexes, this planning quantity shall be the larger of the amounts calculated for each component of the facility.

(6) *Discharge detection systems.* The response plan shall describe the procedures and equipment used to detect discharges.

(7) *Plan implementation.* The response plan shall describe:

(i) Response actions to be carried out by facility personnel or contracted personnel under the response plan to ensure the safety of the facility and to mitigate or prevent discharges described in paragraph (h)(5) of this section or the substantial threat of such discharges;

(ii) A description of the equipment to be used for each scenario;

(iii) Plans to dispose of contaminated cleanup materials; and

(iv) Measures to provide adequate containment and drainage of spilled oil.

(8) *Self-inspection, training, and meeting logs.* The response plan shall include:

(i) A checklist and record of inspection for tanks, secondary containment, and response equipment;

(ii) A description and record of training exercises and periodic unannounced drills to be carried out under the response plan; and

(iii) Logs of discharge prevention meetings.

(9) *Diagrams.* The response plan shall include site plan and drainage plan diagrams.

(10) *Security systems.* The response plan shall include a description of facility security systems.

7. Part 112, as proposed to be revised at 56 FR 54630, is amended by adding Appendices C through G to read as follows:

Appendix C to Part 112—Determination of Substantial Harm

1.0 Introduction

The flowchart provided in Attachment C-I shows the decision tree by which owners and operators will decide whether their facility "could reasonably be expected to cause substantial harm to the environment by discharging into or on the navigable waters, adjoining shorelines, or the exclusive economic zone." In addition, the Regional Administrator (RA) has the discretion to identify facilities that must prepare and submit facility-specific response plans to EPA regardless of the self-determination results. The owner or operator of a regulated facility may determine that a facility has the potential to cause substantial harm to the environment without having to assess every criteria in the flowchart.

2.0 Flowchart for the Determination of Substantial Harm

Facilities that meet one or both of the following two criteria are identified as posing a potential risk of substantial harm to the environment in the event of a discharge and must prepare and submit a facility-specific response plan to EPA in accordance with appendix G of this part:

(1) The facility transfers oil over water to or from vessels and has a total storage capacity greater than or equal to 42,000 gallons.

(2) The facility's total oil storage capacity is greater than or equal to one million gallons, and one of the following is true:

- The facility does not have secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground storage tank within each storage area;
- The facility is located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula considered acceptable by the RA) such that a discharge from the facility could cause injury to an environmentally sensitive area, as defined in appendix D of this part;
- The facility is located at a distance (as calculated using the appropriate formula in

Attachment C-III or an alternative formula considered acceptable by the RA) such that a discharge from the facility would shut down a public drinking water intake; or,

- The facility has had a reportable spill in an amount greater than or equal to 10,000 gallons within the last five years.

2.1 Description of Screening Criteria for the Substantial Harm Flowchart

(1) *Transportation-Related Facilities Greater Than or Equal to 42,000 Gallons Where Operations Include Over-Water Transfer of Oil*—A transportation-related facility with a total storage capacity greater than 42,000 gallons that transfers oil over water to or from vessels must submit a response plan to EPA. Daily oil transfer operations at these types of facilities occur between barges and vessels and onshore bulk storage tanks over open water.

(2) *Lack of Secondary Containment at Facilities With a Total Storage Capacity Greater Than or Equal to One Million Gallons*—Any facility with a total storage capacity greater than or equal to one million gallons without secondary containment sufficiently large to contain the capacity of the largest tank within each storage tank area must submit a response plan to EPA. A secondary containment area that is "sufficiently large" must contain the maximum capacity of the largest tank within a single containment area plus an allowance for precipitation. Secondary containment structures, which meet the standard of good engineering practice for the purposes of this part, include berms, dikes, retaining walls, curbing, culverting, gutters, or other drainage systems.

(3) *Proximity to Environmentally Sensitive Areas at Facilities With a Total Storage Capacity Greater Than or Equal to One Million Gallons*—A facility with a total storage capacity greater than or equal to one million gallons must submit its response plan if it is located at a distance such that a discharge from the facility could cause injury to an environmentally sensitive area, as defined in appendix D of this part. "Injury" is defined in § 112.2 of this part. This definition of "injury" is derived from the Natural Resource Damage Assessments rule at 43 CFR part 11.

Owners or operators may determine the distance at which an oil spill could cause injury to an environmentally sensitive area

using the appropriate formula presented in Attachment C-III of this appendix or an alternative formula considered acceptable by the RA.

(4) *Proximity to Public Drinking Water Intakes at Facilities With a Total Storage Capacity Greater Than or Equal to One Million Gallons*—A facility with a total storage capacity greater than or equal to one million gallons must submit its response plan if it is located at a distance such that a discharge from the facility would shut down a drinking water intake. The distance at which an oil spill from an SPCC-regulated facility would shut down a drinking water intake may also be calculated using the appropriate formula presented in Attachment C-III or an alternative formula considered acceptable by the RA.

(5) *Facilities That Have Experienced Reportable Spills in an Amount Greater Than or Equal to 10,000 Gallons Within the Past Five Years and That Have a Total Storage Capacity Greater Than or Equal to One Million Gallons*—A facility's spill history within the past five years shall be considered in the evaluation for substantial harm. Any facility with a total storage capacity greater than or equal to one million gallons that has experienced a reportable spill in an amount greater than or equal to 10,000 gallons within the past five years must submit a response plan to EPA.

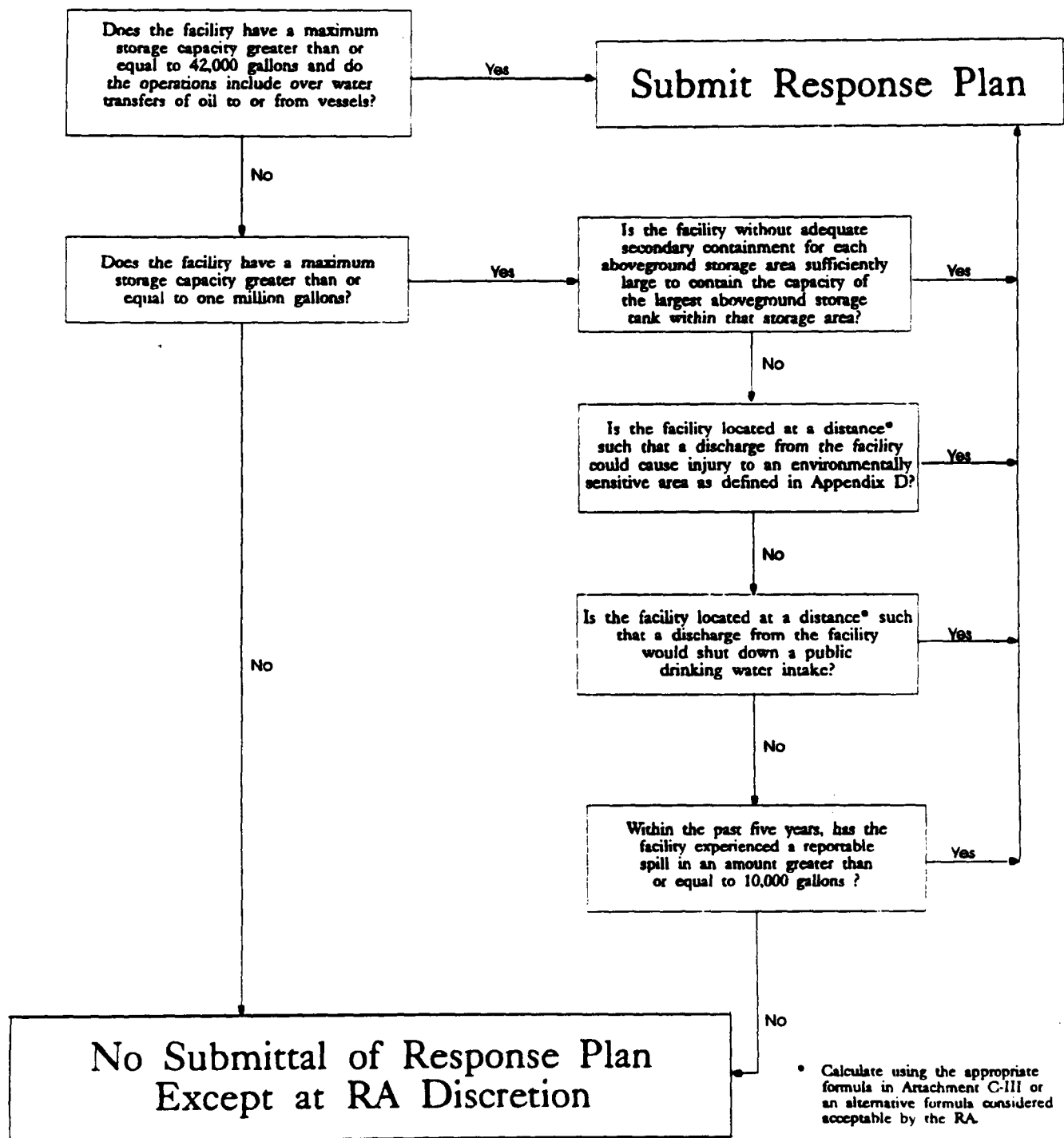
3.0 Certification Form for Facilities That Do Not Pose Substantial Harm

Facilities that do not meet the substantial harm criteria listed in Attachment C-I must complete a certification of substantial harm determination form and maintain the form as part of their SPCC Plan. The certification of substantial harm determination form is provided in Attachment C-II. The owner or operator is required to notify the RA in writing that an alternative formula was used to determine that the facility does not pose a threat of substantial harm. The documentation that demonstrates the reliability and analytical soundness of the alternative formula must be maintained at the facility.

Attachment C-I

BILLING CODE 6560-60-P

Flowchart for the Determination of Substantial Harm



Attachment C-II.—Certification of Substantial Harm Determination Form

Facility name: _____

Facility address: _____

1. Does the facility have a maximum storage capacity greater than or equal to 42,000 gallons and do the operations include over water transfers of oil to or from vessels?
Yes _____ No _____
2. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility without secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground storage tank within the storage area?
Yes _____ No _____
3. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula¹ considered acceptable by the RA) such that a discharge from the facility could cause injury to an environmentally sensitive area as defined in Appendix D?
Yes _____ No _____
4. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula¹ considered acceptable by the RA) such that a discharge from the facility would shut down a public drinking water intake?
Yes _____ No _____
5. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and within the past 5 years, has the facility experienced a reportable spill in an amount greater than or equal to 10,000 gallons?
Yes _____ No _____

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Signature _____

Name (please type or print) _____

Title _____

Date _____

¹If an alternative formula is used, documentation of the reliability and analytical soundness of the alternative formula must be attached to this form.

Attachment C-III.—Calculation of the Planning Distance

As part of the substantial harm determination, the facility owner or operator must evaluate whether the facility is located at a distance which could cause injury to an environmentally sensitive area or disrupt operations at a drinking water intake. To quantify that distance, EPA considered oil transport mechanisms over land and on still and moving navigable waters. After assessing oil transport over land, the primary concern for calculation of a planning distance is the transport of oil in navigable waters. Therefore, two formulas have been developed to determine distances for planning purposes from the point of discharge at the facility to the potential site of impact on moving and still waters, respectively. The formula for oil transport on moving navigable water is based on the velocity of the water body and the time interval for arrival of response resources. The still water formula accounts for the spread of discharged oil over the surface of the water.

EPA's formulas were designed to be simple to use. However, facilities may calculate planning distances using more sophisticated formulas, which take into account broader scientific or engineering principles, or local conditions. Such alternative formulas may result in different planning distances than EPA's formulas. If an alternative formula is used to establish the appropriate distance to sensitive environments or drinking water intakes and it is determined that the facility does not pose substantial harm, the owner or operator is required to notify the RA in writing. Documentation must be maintained at the facility to demonstrate the reliability and analytical soundness of the alternative formula. Those facilities that meet the substantial harm criteria and use an alternative formula to determine the planning distance must attach the documentation that demonstrates the reliability and analytical soundness of the alternative formula to the response plan cover sheet in appendix G of this part. The owner or operator of a regulated facility may determine that a facility has the potential to cause substantial harm to the environment without having to perform a planning distance calculation. For facilities that meet the substantial harm determination because of inadequate secondary containment or spill history, as listed in the flowchart in Attachment C-I, calculation of the planning distance is unnecessary. For facilities that do not meet the substantial harm criteria for secondary containment and spill history listed in the flowchart, calculation of a planning distance for proximity to sensitive environments and drinking water intakes is required, unless it is clear that these areas would be impacted without performing the calculation.

Alternative formulas are subject to review by the RA. However, such formulas shall be deemed adequate unless the RA notifies the owner or operator in writing of specific technical objections.

The planning distance formula for transport on moving waterways contains three variables: The velocity of the navigable water (v), the response time interval (t) and a conversion factor (c). The velocity, v, is

determined by using the Chezy-Manning equation, which models the flow of water in open channels. The Chezy-Manning equation contains three variables which must be determined by facility owners and operators. Manning's Roughness Coefficient, n, can be determined from Table 1. The hydraulic radius, r, can be evaluated using the average mid-channel depth from charts provided by the sources listed in Table 2. The average slope of the river, s, can be determined using topographic maps that can be ordered from the U.S. Geological Survey, as listed in Table 2. For further information on fluid flow, refer to Open Channel Hydraulics by V.T. Chow, published by McGraw Hill in 1959.

Table 3 contains specified time intervals for arrival of response resources at the scene of a discharge. The response times listed in Table 3 are consistent with the U.S. Coast Guard's (USCG) proposed rulemaking for response plans. Response resources should be prepositioned to arrive at the discharge site within 12 hours of the discovery of an oil discharge in Higher Volume Port Areas and Great Lakes; and 24 hours in all other river, inland and nearshore areas as defined in this attachment. The specified time intervals have been adjusted upward to include a three hour time period for deployment of booms and other response equipment. The designated Higher Volume Port Areas listed in the definitions section are example areas covered in the proposed USCG tank vessel response plan regulation. The RA may identify additional areas as appropriate.

Oil Transport on Moving Navigable Waters

The facility owner or operator should use the following formula to calculate the planning distance:

$$d = v \times t \times c; \text{ where}$$

d: the distance downstream from a facility within which an environmentally sensitive area could be injured or drinking water intake would be shut down in the event of an oil discharge (in miles);

v: the velocity of the river/navigable water of concern (in ft/sec) as determined by Chezy-Manning's equation (see below and Tables 1 and 2);

t: the time interval specified in Table 3 based upon the type of water body and location (in hours); and

c: constant conversion factor 0.68 sec/mile/hr = ft (3600 sec/hr ÷ 5280 ft/mile).

Chezy-Manning's equation is used to determine velocity:

$$v = 1.48 / n \times r^{2/3} \times s^{1/2}$$

where:

v = the velocity of the river of concern (in ft/sec);

n = Manning's Roughness Coefficient from Table 1

r = the hydraulic radius; the hydraulic radius can be approximated for parabolic channels by multiplying the average mid-channel depth of the river (in feet) by .667 (sources for obtaining the mid-channel depth are listed in Table 2)

s=the average slope of the river (unitless) obtained from topographic maps supplied by the U.S. Geological Survey listed in Table 2

TABLE 1.—MANNING'S ROUGHNESS COEFFICIENT FOR NATURAL STREAMS

Stream description	Roughness coefficient (n)
Minor streams (Top Width <100 ft.)	
Clean:	
Straight	0.03
Winding	0.04
Sluggish (Weedy, deep pools):	
No trees or brush	0.06
Trees and/or brush	0.10
Major streams (Top Width >100 ft.)	
Regular Section (no boulders/brush)	0.035
Irregular Section (brush)	0.05

Note: Coefficients are presented for high flow rates at or near flood stage.

TABLE 2.—SOURCES OF R AND S FOR THE CHEZY-MANNING EQUATION

All of the charts and related publications for navigational waters may be ordered from:

Distribution Branch
(N/CG33)
National Ocean Service
Riverdale, Maryland 20737-1199
Phone: (301) 436-6990

There will be a charge for materials ordered and a VISA or Mastercard will be accepted.

The mid-channel depth to be used in the calculation of the hydraulic radius (r) can be obtained directly from the following sources:

Charts of Canadian Coastal and Great Lakes Waters:
Canadian Hydrographic Service
Department of Fisheries and Oceans Institute
P.O. Box 8080
1675 Russell Road
Ottawa, Ontario K1G 3H6
Canada
Phone: (613) 998-4931

Charts and Maps of Lower Mississippi River
(Gulf of Mexico to Ohio River and St. Francis, White, Big Sunflower, Atchafalaya, and other rivers):
U.S. Army Corps of Engineers
Vicksburg District
P.O. Box 60
Vicksburg, Mississippi 39180
Phone: (601) 634-5000

Charts of Upper Mississippi River and Illinois Waterway to Lake Michigan:
U.S. Army Corps of Engineers
Rock Island District
P.O. Box 2004
Rock Island, Illinois 61204
Phone: (309) 788-6412

Charts of Missouri River:
U.S. Army Corps of Engineers
Omaha District

TABLE 2.—SOURCES OF R AND S FOR THE CHEZY-MANNING EQUATION—Continued

6014 U.S. Post Office and Courthouse
Omaha, Nebraska 68102
Phone: (402) 221-3900

Charts of Ohio River:
U.S. Army Corps of Engineers
Ohio River Division
P.O. Box 1159
Cincinnati, Ohio 45201
Phone: (513) 684-3002

Charts of Tennessee Valley Authority Reservoirs, Tennessee River and Tributaries:

Tennessee Valley Authority
Maps and Engineering Section
416 Union Avenue
Knoxville, Tennessee 37902
Phone: (615) 632-2921

Charts of Black Warrior River, Alabama River, Tombigbee River, Apalachicola River and Pearl River:
U.S. Army Corps of Engineers
Mobile District
P.O. Box 2288
Mobile, Alabama 36628-0001
Phone: (205) 690-2511

The average slope of the river (s) may be obtained from topographic maps:

U.S. Geological Survey
Map Distribution
Federal Center
Bldg. 41
Box 25286
Denver, Colorado 80225

Additional information can be obtained from the following sources:

- (1) The State Department of Naval Resources (DNR) or the State Aids to Navigation office;
- (2) A knowledgeable local marina operator; or
- (3) A knowledgeable local water authority (i.e., State water commission)

The average slope of the river(s) can be determined from the topographic maps using the following steps:

- Locate the facility on the map.
- Find the Normal Pool Elevation at the point of release from the facility into the water (A).
- Find the Normal Pool Elevation of the drinking water intake or environmentally sensitive area located downstream (B) (Note: The owner or operator should use a minimum of 20 miles downstream as a cutoff to obtain the average slope if the location of a specific drinking water intake or environmentally sensitive area is unknown).
- If the Normal Pool Elevation is not available, the elevation contours can be used to find the slope. Determine elevation of the water at the point of release from the facility (A). Determine the elevation of the water at the appropriate distance downstream (B).

The formula presented below can be used to calculate the slope.

- Determine the distance (in miles) between the facility and the drinking water intake or environmentally sensitive area (C).

- Use the following formula to find the slope, which will be a unitless value:

$$\text{Average Slope} = [(A - B) \text{ (ft)} / C \text{ (miles)}] \times [1 \text{ mile} / 5280 \text{ feet}]$$

If it is not feasible to determine the slope and mid-channel depth as required by the Chezy-Manning equation, the river velocity can be approximated on-site. A specific length, such as 100 feet, can be marked off along the shoreline. A float can be dropped into the stream above the mark, and the time required for the float to travel the distance can be used to determine the velocity in feet per second. However, this method will not yield an average velocity for the length of the stream, but a velocity only for the specific location of measurement. In addition, the flow rate will vary depending on weather conditions such as wind and rainfall. It is recommended that owners and operators repeat the measurement under a variety of conditions to obtain the most accurate estimate of the surface water velocity.

The planning distance calculations for moving and still navigable waters are based on discharges of persistent oils released in worst case discharge volumes. Persistent oils are of concern because they can remain in the water for significant periods of time and can potentially exist in large quantities downstream. Owners and operators of facilities that store persistent as well as non-persistent oils may use an alternative formula provided it is acceptable to the RA. The volume of oil discharged is not included as part of the planning distance calculation for moving navigable waters. Facility owners and operators that will complete this part of the substantial harm determination are those with facility capacities greater than or equal to one million gallons. It is assumed that these facilities are capable of having an oil discharge of sufficient quantity to cause injury to a sensitive environment or shut down a drinking water intake. While owners and operators of transfer facilities that store greater than or equal to 42,000 gallons are not required to use a planning distance formula for purposes of the substantial harm determination, they should use a planning distance calculation in the development of facility-specific response plans.

TABLE 3.—SPECIFIED TIME INTERVAL

	Higher volume port areas and Great Lakes	Other areas
Shoreline and Inland Rivers	12 hour arrival + 3 hour deployment = 15 hours	24 hours + 3 hour deployment = 27 hours.
	12 hours + 3 hour deployment = 15 hours.	24 hours + 3 hour deployment = 27 hours.

Definitions

Great Lakes: includes the Great Lakes (Superior, Michigan, Huron, Erie and Ontario) plus their connecting and tributary waters including the Calumet River as far as Thomas J. O'Brien Lock and Controlling Works (between mile 326 and 327), the Chicago River as far as the east side of the Ashland Avenue Bridge (between mile 321 and 322), and the Saint Lawrence River as far east as the lower exit of the Saint Lambert Lock.

Higher Volume Port Area: includes

- (1) Boston, MA
- (2) New York, NY
- (3) Delaware Bay and River, PA
- (4) St. Croix, VI
- (5) Pascagoula, MS
- (6) Mississippi River from Southwest Pass, LA to Baton Rouge, LA
- (7) Louisiana Offshore Oil Port (LOOP)
- (8) Lake Charles, LA
- (9) Sabine-Neches River, TX
- (10) Galveston Bay and Houston Ship Channel, TX
- (11) Corpus Christi, TX
- (12) Los Angeles/Long Beach Harbor, CA
- (13) San Francisco Bay and Sacramento River, CA
- (14) Straits of Juan de Fuca and Puget Sound, WA
- (15) Prince William Sound, AK
- (16) others as specified by RA

Inland Area: the area shoreward of the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, inland areas include the area shoreward of the lines of demarcation (COLREG lines as defined in 33 CFR sections 80.740–80.850). The inland area does not include the Great Lakes or rivers and canals.

River and Canals: bodies of water confined within the inland area that have a controlled navigable depth of 12 feet or less, including the Intracoastal Waterway.

Example of the Planning Distance Calculation

The following example provides a sample calculation using the planning distance formula for a facility discharging into the Monongahela River:

(1) Solve for v by evaluating n , r , and s for the Chezy-Manning equation:

$n=0.035$ From Table 1 for a regular section of a major stream with a top width greater than 100 feet. The top width of the river can be found from the topographic map.

$s=1.3 \times 10^{-4}$ where $A = 727$ feet, $B = 710$ feet, and $C = 25$ miles.

Solving:

$$[(727 \text{ ft} - 710 \text{ ft})/25 \text{ miles}] \times [1 \text{ mile}/5280 \text{ feet}] = 1.3 \times 10^{-4}$$

$r=13.33$ feet. The average mid-channel depth is found by averaging the mid-channel depth for each mile along the length of the river between the facility and the drinking water intake or the environmentally sensitive area (or 20 miles downstream if applicable). This value is multiplied by 0.667 to obtain the hydraulic radius. The mid-channel depth is found on the chart of the Monongahela River.

Solving:

$$r=0.667 \times 20 \text{ feet}=13.33 \text{ feet}$$

Solve for v using

$$v=1.49/nr^{2/3} \times s^{1/2}$$

$$v=[1.49/0.035] \times [13.33]^{2/3} \times [1.3 \times 10^{-4}]^{1/2}$$

$$v=2.73 \text{ feet/second}$$

(2) Find t from Table 3. For the Monongahela River, the resource response time is 27 hours.

(3) Solve for planning distance, d :

$$d=v \times t \times c$$

$$d=(2.73 \text{ ft/sec}) \times (27 \text{ hours}) \times (0.68 \text{ sec/mile/hr} \times \text{ft})$$

$$d=50 \text{ miles}$$

Therefore, 50 miles downstream is the appropriate planning distance for this facility.

Oil Transport on Still Water

For bodies of water including lakes or ponds which do not have a measurable velocity, the spreading of the oil over the surface must be considered. Owners and operators of facilities located next to still water bodies may use an alternative means of calculating the planning distance if it is acceptable to the RA. If an alternative formula is used, documentation of the reliability and analytical soundness of the alternative calculation must be attached to the response plan cover sheet. To assist those facilities which could potentially discharge into a still body of water, the following analysis was performed to provide an example of the type of formula that may be used to calculate the planning distance. For this example, a worst case discharge of 2,000,000 gallons is used.

The surface area covered by a spill on still water, A_1 , can be determined by the following formula¹, where V is the volume of the spill in gallons:

$$A_1=10^5 V^{3/4}$$

$$V=2,000,000 \text{ gallons} \times 0.13368 \text{ ft}^3/\text{gallon}=267,360 \text{ ft}^3$$

¹ Huang, J.C. and Monastero, F.C., 1982. Review of the State-of-the-Art of Oil Pollution Models. Final report submitted to the American Petroleum Institute by Raytheon Ocean Systems, Co., East Providence, Rhode Island.

$$A_1=10^5 \times (267,360)^{3/4}$$

$$A_1=1.18 \times 10^9 \text{ ft}^2$$

The spreading formula is based on the theoretical condition that the oil will spread uniformly in all directions forming a circle. In reality, the outfall of the discharge will direct the oil to the surface of the water where it intersects the shoreline. Although the oil will not spread uniformly in all directions, it is assumed that the discharge will spread from the shoreline into a semi-circle (this assumption does not account for winds or wave action).

The area of a circle= πr^2

To account for the assumption that oil will spread in a semi-circular shape, the area of a circle is divided by 2 and is designated as A_2 .

$$A_2=(\pi r^2)/2$$

Solving for the radius, r , using the relationship $A_1=A_2$:

$$1.18 \times 10^9 = (\pi r^2)/2$$

$$\therefore r=27,404 \text{ ft}$$

$$27,404 \text{ ft} \div 5,280 \text{ ft/mile}=5.2 \text{ miles}$$

Assuming a 20 knot wind under storm conditions:

$$1 \text{ knot}=1.15 \text{ miles/hour}$$

$$20 \text{ knots} \times 1.15 \text{ miles/hour/knot}=23 \text{ m/hr}$$

Assuming that the oil slick moves at 3% of the wind's speed²:

$$23 \text{ miles/hour} \times 0.03=.69 \text{ miles/hour}$$

To estimate the distance that the oil will travel, the time required for response resources to arrive at different geographic locations according to Table 3 is used:

For Higher Volume Port Areas and Great Lakes: $15 \text{ hrs} \times 0.69 \text{ m/hr}=10.4 \text{ miles}$

For other areas: $27 \text{ hrs} \times 0.69 \text{ m/hr}=18.6 \text{ miles}$
The total distance that the oil will travel from the point of release:

Higher Volume Port Areas and Great Lakes: $10.4+5.2 \text{ miles}$ or approximately 16 miles

Other areas: $18.6+5.2 \text{ miles}$ or approximately 24 miles

Oil Transport Over Land

Facility owners or operators must evaluate the potential for oil to be transported over land to waters of the United States. The owner or operator should evaluate the likelihood that portions of a worst case discharge would reach navigable waters via open channel flow or from sheet flow across the land, or be prevented from reaching navigable waters when trapped in natural or man-made depressions.

As discharged oil travels over land, it may enter a storm drain or open concrete channel intended for drainage. An evaluation of the flow of oil in concrete pipes and channels

² Oil Prevention & Control. National Spill Control School, Corpus Christi State University. Thirteenth Edition, May 1990.

reveals that the travel time through the length of the drain is virtually instantaneous.³ For this reason, it is assumed that once oil reaches such an inlet, it will flow into the navigable water. During a storm event, it is highly probable that the oil will either flow into the drainage structures or follow the natural contours of the land and flow into the navigable water. Expected minimum and maximum velocities are provided as examples of open channel and pipe flow. The ranges listed below reflect minimum and maximum velocities used as design criteria. It is shown that the time required for oil to travel through a storm drain or open channel to navigable water is negligible and can be considered instantaneous. The velocities are:

For open channels:

maximum velocity=25 feet per second

minimum velocity=3 feet per second

For storm drains:

maximum velocity=25 feet per second

minimum velocity=2 feet per second

Assuming a length of ½ mile from the point of discharge through a open concrete channel or concrete storm drain to a navigable water, the travel times (distance/velocity) are:

1.8 minutes at a velocity of 25 feet per second

14.7 minutes at a velocity of 3 feet per second

22.0 minutes at a velocity of 2 feet per second

The distances that should be considered to determine the planning distance are illustrated in Figure 1. The relevant distances can be described as follows:

D1=Distance from the nearest opportunity for release, X₁, to storm drain or open channel leading to navigable water

D2=Distance through storm drain or open channel to navigable water

D3=Distance downstream from outfall within which an environmentally sensitive area could be injured or a drinking water intake would be shut down as determined by the planning distance formula

D4=Distance from the nearest opportunity for release, X₂, to an environmentally sensitive area not associated with navigable water

Facility owners and operators whose nearest opportunity for discharge is located within ½ mile of a navigable water should complete the planning distance calculation or an alternative formula acceptable to the RA. Facilities that are located at a distance greater than ½ mile from a navigable water

should also calculate a planning distance if they are in close proximity to storm drains or environmentally sensitive areas.

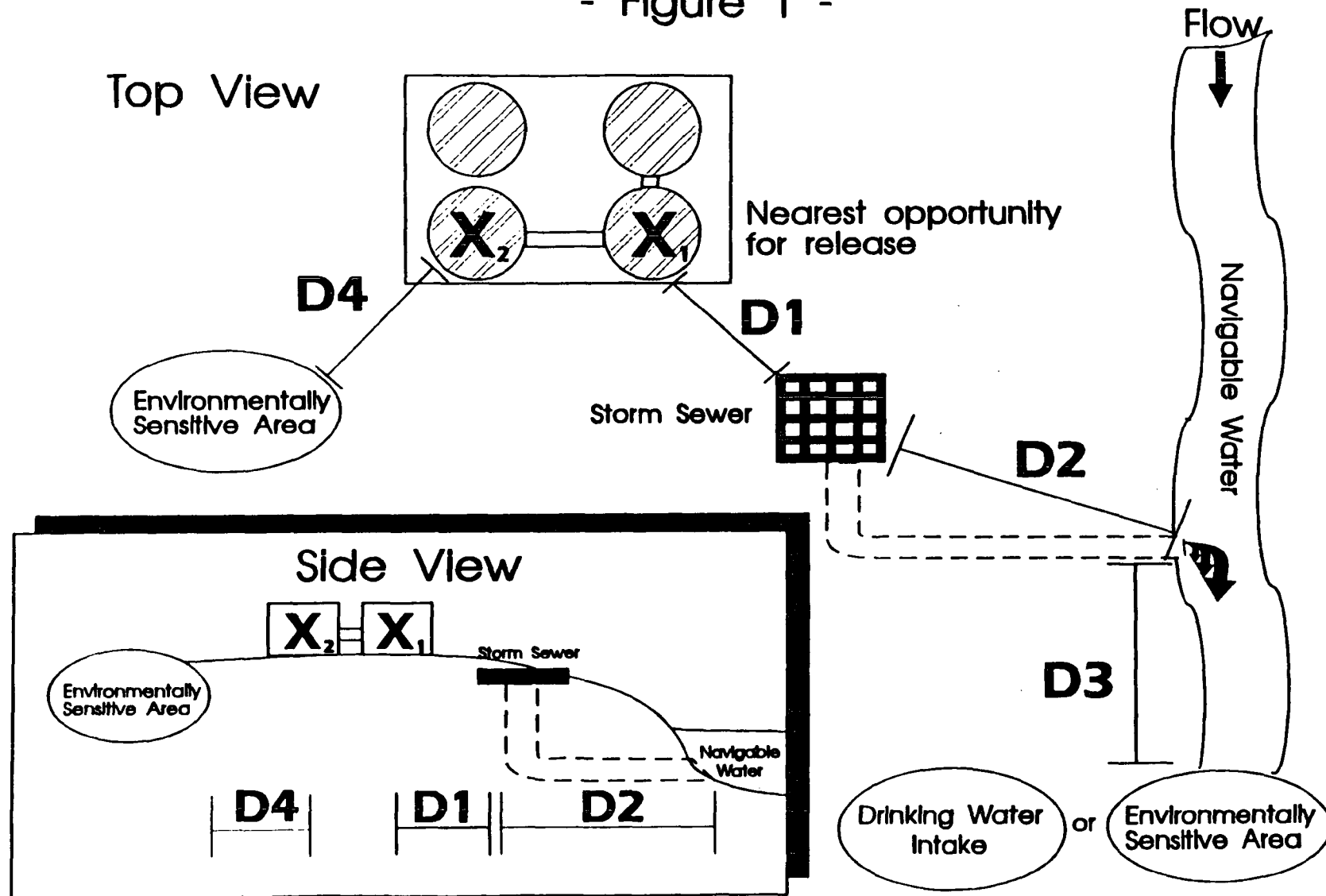
Storm drains or concrete drainage channels that are located in close proximity to the facility provide a direct pathway to navigable waters. Figure 1 depicts the configuration of a facility and denotes the storm drain as D1. If D1 is less than or equal to ½ mile, a discharge from the facility could pose substantial harm since the travel time through the storm drain to the navigable water (D2) is instantaneous. Even if the facility is located at a distance greater than ½ mile from the navigable water, the storm drain provides direct access to the water, regardless of the length of the drainage pipe. In this case, the owner or operator should calculate a planning distance.

A facility's proximity to an environmentally sensitive area, as depicted in D4 of Figure 1 should also be considered, regardless of the distance from the facility to navigable waters. Factors to be considered in assessing oil transport over land to sensitive environments and storm drains should include the topography of the surrounding area, drainage patterns, man-made barriers (excluding secondary containment structures), and soil distribution and porosity.

BILLING CODE 6560-60-P

³ The design velocities were obtained from Howard County, Maryland Department of Public Works' Storm Drainage Design Manual.

- Figure 1 -



BILLING CODE 6540-50-C

** Not to scale **

Appendix D to Part 112.— Environmentally Sensitive Areas

Proximity to environmentally sensitive areas has been identified as a factor in the substantial harm evaluation. To assist owners and operators in identifying these areas, environmentally sensitive areas may include a variety of areas, such as: Wetlands, National and State parks, critical habitats for endangered/threatened species, wilderness and natural areas, marine sanctuaries, conservation areas, preserves, wildlife areas, scenic and wild rivers, seashore and lakeshore recreational areas, and critical biological resource areas.

Other environmental areas that may be considered by the Regional Administrator (RA) to determine whether a facility poses significant and substantial harm to the environment include: Federal and State lands that are research natural areas, heritage program areas, land trust areas, and historical and archeological sites and parks. These areas may also include unique habitats, such as: aquaculture sites, bird nesting areas, designated migratory routes, and designated seasonal habitats. The RA may determine, on a case-by-case basis, that additional areas that possess ecological significance are considered to be environmentally sensitive for the purposes of this regulation.

Attachment C-III of appendix C of this part provides a method for owners and operators to determine if the facility is located at a distance such that a discharge from the facility could cause injury to an environmentally sensitive area. The distance calculation is based on oil transport on fast moving and still waters and over land. "Injury" is defined in § 112.2 of this part. This definition of "injury" is derived from the Natural Resource Damage Assessments rule at 43 CFR part 11.

The attachments to this appendix provide environmental information to facility owners and operators for the development of response plans. The attachments also provide information regarding the boundaries of environmentally sensitive areas located near the facility and prioritize vulnerable areas for protection in the event of a discharge. Attachment D-I provides a list of responsible Federal agencies for specific environmental resources. Critical habitats for designated endangered/threatened species have been designated as environmentally sensitive areas. Further information to assist owners and operators to delineate boundaries on critical habitats for endangered/threatened species identified by the National Marine Fisheries Service (NMFS) is provided in Attachment D-II. National Marine Sanctuaries (NMS) and National Estuarine Research Reserves (NERR) are listed in Attachment D-III. The sanctuaries and reserves are protected by various Federal regulations. In order to prioritize and allocate sufficient resources for oil containment and recovery in the event of a discharge, Attachments D-IV and D-V present a comparison of the vulnerability of certain aquatic ecosystems to oil discharges. Attachment D-IV presents a list of aquatic habitats, their importance, and vulnerability to oil discharges. Attachment D-V ranks

several aquatic habitats on their relative vulnerability to oil. This prioritized list will help owners and operators to direct their initial spill response to the most critical areas.

Areas considered as environmentally sensitive will change as the various Federal and State agencies responsible for designating the areas periodically update their lists. Owners and operators are expected to ensure that facility response plans reflect the listing of sensitive environments published to a point in time 6 months prior to plan submission. For example, plans submitted to meet the February 18, 1993, deadline would only need to consider sensitive environments designated by responsible agencies in Attachment D-I as of August 18, 1992. A 6-month cutoff point for considering environmentally sensitive areas would also apply in situations where plans are periodically updated or resubmitted for approval of a material change.

Attachment D-I.—Responsible Federal Agencies for Specific Environmental Resources

For more information on the following areas, owners and operators should contact the responsible agency listed below. These agencies will provide assistance, including maps, for the areas under their jurisdiction.

Areas	Responsible federal agency
Wetlands, as defined in 40 CFR 230.3.	EPA ¹
Critical habitat for designated or proposed endangered/threatened species.	NOAA/FWS
Habitat used by designated or proposed endangered/threatened species or marine mammals defined as depleted.	NOAA/FWS
Marine sanctuaries	NOAA
National parks	DOI/NPS
Federal wilderness areas	USDA
Coast Zone Management Act designated areas.	NOAA
National estuary program	EPA ¹
Near coastal waters program areas.	
Clean lakes program critical areas	EPA ¹
National monuments	DOI
National seashore recreational areas.	DOI/NPS
National lakeshore recreational areas.	DOI
National preserves	DOI
National wildlife refuges	NOAA/FWS
Coastal barrier resource system (units, undeveloped, partially developed).	FWS
National river reach designated as recreational.	EPA ¹
Federal or state designated scenic or wild river.	DOI
National conservation areas	DOI/BLM
Hatcheries	FWS
Waterfowl management areas	FWS

¹Where EPA is designated as the responsible agency, the information will be provided by the appropriate Regional office.

NOTE: Please contact State or local agencies for information on resources they manage.

Acronyms

BLM—Bureau of Land Management
DOI—Department of Interior

EPA—Environmental Protection Agency
FWS—Fish and Wildlife Service
NOAA—National Oceanic and Atmospheric Administration
NPS—National Park Service
USDA—United States Department of Agriculture

Attachment D-II.—Critical Habitats and Endangered/Threatened Species

1. Designated Critical Habitat for National Marine Fisheries Service (NMFS) Species

The following locations have been designated as critical habitats for NMFS species. These habitats are considered environmentally sensitive areas and are preserved by the government. Habitat boundaries for the NMFS species listed below are identified in the 50 CFR parts 226 and 227. This list is not all-inclusive. Facility owners and operators should contact the appropriate NMFS region listed in Section 3 of this attachment for further information.

NMFS species	Location
Hawaiian monk seal	NW Hawaiian Islands.
Leatherback sea turtle	Sandy Pt., St. Croix, USVI.
35 Steller sea lion rookery sites.	Alaska/N. Pacific Coast.
Winter-run chinook salmon.	Sacramento River, CA.

2. Seasonal Critical Habitats

Primary seasonal habitat areas for endangered species as identified in recovery plans and other technical documents are listed below. Facility owners and operators should contact the appropriate NMFS region listed in Section 3 of this attachment for further information.

Northern Right Whale (Final Recovery Plan, December 1991)

Florida—Georgia coast from 28°N to 32°N during the months of December through March. Calving and nursery area.

Cape Cod—Massachusetts Bay during the months of March–September. Primary feeding areas.

Great South Channel on the western edge of Georges Bank and Jeffrey's Ledge during the months of March–September. Primary feeding area.

Humpback Whale—East Coast Population (Final Recovery Plan, November 1991)

Gulf of Maine, Great South Channel, Stellwagen Bank, and Jeffrey's Ledge during the period from mid-April through mid-November. Primary feeding area.

Silver Bank and Navidad Bank off the coast of Puerto Rico, coastal areas off the northwest coast of Puerto Rico, and the U.S. Virgin Islands from mid-December through early April. Calving and nursery area.

Humpback Whale—West Coast Population (Final Recovery Plan, November 1991)

Hawaiian Islands (Central North Pacific stock) and Guam (Western North Pacific stock) from December–April. Calving and nursery area.

Central and western Gulf of Alaska, including Prince William Sound, Shelikof Strait, Barren Islands and the southern

coastline of the Alaska peninsula during the months of May–November. Primary feeding area.

Inside Passage and coastal waters of the southeast Alaska panhandle from Yakutat Bay south to Queen Charlotte Sound during the months May–November. This area includes Glacier Bay, Icy Strait, Stephens Passage/Frederick Sound, Seymour Canal, Sitka Sound, Cape Fairweather, Lynn Canal, Sumner Strait, Dixon Entrance, the west coast of Prince Wales Islands, and the Fairweather grounds which is an offshore bank. Primary feeding area.

Shortnose Sturgeon (NOAA Technical Report NMFS 14 and FAO Fisheries Synopsis No. 140)

The following east coast rivers and bays should be included: Kennebec River, Androscoggin River, Montsweag Bay, Merrimack River, Connecticut River, Hudson River, Delaware River, Wacoamaw River (including Winyah Bay), Lake Marion-Wateree River, lower Savannah River, Altamaha River, Ocumulgee River, and St. Johns River.

Gray Whale (5 Year Status Review)

Northern Bering and southern Chukchi Seas. Primary feeding areas.

Unlike other whale species, the gray whale is particularly vulnerable during its migration period because it migrates very close to shore. In areas such as Monterey and Point Conception it migrates within two miles of shore. The entire west coast from Alaska to the Mexican border should be listed during the migration periods. Southbound migration is during the months of October–December, and northbound migration is from mid-February to April.

Sacramento River Winter-run Chinook Salmon should be revised to reflect the revised critical habitat proposal, 57 FR 36626–36632, August 14, 1992.

(1) Sacramento River from Keswick Dam (River Mile 302) to Chipps Island (River Mile 0) at the westward margin of Sacramento-San Joaquin Delta;

(2) all waters from Chipps Island westward to Carquinez Bridge, including Honker Bay, Grizzly Bay, Suisan Bay, and Carquinez Strait;

(3) all waters of San Pablo bay from San Pablo Bay to the Golden Gate bridge.

3. NOAA National Marine Fisheries Service Regional Offices

NMFS Northeast Region, Richard B. Roe, Director, One Blackburn Drive, Gloucester, MA 01930, Tel: (508) 281–9250

NMFS Southeast Region, Andrew Kemmerer, Director, 9450 Koger Blvd., St. Petersburg, FL 33702, Tel: (813) 893–3141

NMFS Northwest Region, Roland Schmitt, Director, 7600 Sand Point Way NE, Seattle, WA 98115–0070, Tel: (206) 526–6150

NMFS Southwest Region, Gary Matlock, Acting Director, 501 West Ocean Blvd., Suite 4200, Long Beach, CA 90802–4213, Tel: (310) 980–4001

NMFS Alaska Region, Steven Pennoyer, Director, Post Office Box 21668, Juneau, AK 99802, Tel: (907) 586–7221.

Attachment D–III.—Marine Sanctuary and Estuarine Reserves

The following sanctuaries and reserves are protected by Federal regulations:

National marine sanctuaries (NMS)	Location	Regulation
Monitor NMS.	North Carolina	15 CFR part 924.
Key Largo NMS.	Florida	15 CFR part 929.
Channel Islands NMS.	California	15 CFR part 935.
Point Reyes/Farallon Island NMS.	California	15 CFR part 936.
Loose Key NMS.	Florida	15 CFR part 937.
Gray's Reef NMS.	Georgia	15 CFR part 938.
Fagatele Bay NMS.	American Samoa	15 CFR part 941.
Cordell Bank NMS.	California	15 CFR part 942.
Florida Keys NMS.	Florida	pending. ¹
Flower Garden Banks NMS.	Texas	15 CFR part 943.

National estuarine research reserve (NERR)	Area of concern
Wells NERR	Rachel Carson Refuge, ME.
Great Bay NERR	Durham, NH.
Waquoit Bay NERR	Massachusetts.
Narragansett Bay NERR	Rhode Island.
Hudson River NERR	New York.
Old Woman Creek NERR	Huron, OH.
Chesapeake Bay NERR, MD.	Annapolis, MD.
Chesapeake Bay NERR, VA.	Gloucester Pt., VA.
North Carolina NERR	Wilmington, NC.
Sapelo Island NERR	Georgia.
Jobos Bay NERR	Guayama, PR.
Apalachicola River NERR	Florida.
Apalachee Bay NERR	Naples, FL.
Weeks Bay NERR	Fairhope, AL.
Tijuana River NERR	Imperial Beach, CA.
Elkhorn Slough NERR	Watsonville, CA.
South Slough NERR	Charleston, OR.
Padilla Bay NERR	Mt. Vernon, WA.
Wampanoag Valley NERR	Oahu, HI.

Information on these sanctuaries and reserves can be found in the regulations:

—National Marine Sanctuary Program (15 CFR part 922)

—National Estuarine Research Reserve Program (15 CFR part 921)

¹ Currently designated a National Marine Sanctuary by the Office of Ocean and Coastal Resource Management, Sanctuaries and Reserves Division. Publication in Federal Register is pending.

For additional information on area boundaries for all sites, and proposed Sanctuaries and Estuarine Reserves contact: Office of Ocean and Coastal Resource Management, Sanctuaries and Reserves

Division, 1825 Connecticut Avenue, NW., room 714, Washington, DC 20235.

Attachment D–IV.—Vulnerability of Aquatic Ecosystems

Habitat	Importance	Vulnerability to oil discharges
Intertidal shore: Sandy Beach Rocky Shore Tidal Flat	Bird nesting and feeding.	Moderate. High. High.
Intertidal wetlands: Marshes	Breeding for nursery grounds for fish and wildlife, erosion control, and nutrient trap.	Low-high.
Mangroves		High.
Subtidal systems: Seagrass	Fish feeding and nursery; sediment containment and stabilization.	High.
Coral Reef		High.
Soft Bottom		High.
Rocky		Moderate.
Fisheries: Offshore	Commercial fisheries.	Low (except spawning).
Nearshore		Moderate.
Coral Reef		High.
Freshwater: Fast Flowing Large River	Fisheries	Moderate.
Ponds	Fisheries	Moderate.
Lakes	Aquaculture	High.
Tundra/Taiga	Fisheries	Low.
		High.

SOURCE: United States Department of the Interior, Fish and Wildlife Service National Wetlands Research Center.

Attachment D–V.—Vulnerability Scale of Aquatic Habitats Impacted by Oil Spills

This attachment ranks aquatic habitats by their relative degree of vulnerability to oil spills. The most vulnerable habitats are those with the lowest number corresponding to the order of importance. Facility owners and operators should use the scale to direct initial recovery efforts to the most critical areas.

Order of importance	Habitat
1	Subtidal soft bottoms, seagrass communities and freshwater systems which once impacted may incur long-term damage.
1	Sheltered marshes and mangrove coasts; difficult to clean.
2	Sheltered estuarine tidal flats; natural cleansing may take years.
3	Sheltered rocky coasts; oil may not be washed off for months; residual toxicity low but may alter habitat and slow recovery process.
3–4	Coral Reefs.
4	Gravel beaches; oil penetrates up to 60 centimeters and persists as a mousse for long periods.
5	Mixed sand and gravel beaches; penetration of oil and rapid burial; oil may persist for year; mechanical cleanup may cause significant erosion.

Order of importance	Habitat
6	Exposed, compacted tidal flat; oil penetrates deeply.
7	Medium-coarse grained sand beaches; oil penetration likely.
8	Flat, fine-grained sand beaches; compaction prohibits oil penetration.
9	Eroding wave-cut platforms; good wave action.
10	Exposed or cliffed rock headlands; good wave action.

SOURCE: United States Department of the Interior, Fish and Wildlife Service National Wetlands Research Center.

Appendix E to Part 112—Determination of a Worst Case Discharge

Instructions

Owners and operators are required to complete this worksheet if it is determined (from appendix C of this part) that the facility could cause substantial harm to the environment by self-selection or RA determination. The calculation of a worst case discharge is used for emergency planning purposes, and is required in § 112.20 for facility owners and operators who must prepare a response plan. When planning for the amount of resources and equipment necessary to respond to the worst case discharge planning volume, adverse weather conditions should be taken into consideration. Owners and operators would be required to determine the facility's worst case discharge from either part A for onshore storage facilities, or part B for onshore production facilities. The worksheet integrates a facility's use of secondary containment and its proximity to navigable waters.

For onshore storage facilities and production facilities, permanently manifolded tanks are defined as tanks that are designed, installed, and/or operated in such a manner that the multiple tanks function as one storage unit. In a worst case discharge scenario, a single failure could cause the release of the contents of more than one tank. The owner or operator must provide evidence in the response plan that tanks with common piping or piping systems are not operated as one unit. If such evidence is provided and is acceptable to the RA, the worst case discharge volume would be based on the capacity of the largest tank within a common secondary containment area or the largest tank within a single secondary containment area, whichever is greater.

For permanently manifolded tanks that function as one storage unit, the worst case discharge would be based on the combined storage capacity of all manifolded tanks or the capacity of the largest single tank within a secondary containment area, whichever is greater. For purposes of this determination, permanently manifolded tanks that are separated by internal divisions for each tank are considered to be single tanks and individual manifolded tank volumes are not combined.

For production facilities, the presence of exploratory wells, production wells, and storage tanks must be considered in the calculation. Part B takes these additional factors into consideration and provides steps

for their inclusion in the total worst case volume. Onshore oil production facilities may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator. Although a potential worst case volume is calculated within each section of the worksheet, the final worst case amount is dependent on the risk parameter that results in the greatest volume.

Marine transportation-related transfer facilities that contain fixed aboveground onshore structures used for bulk oil storage are jointly regulated by EPA and the U.S. Coast Guard (USCG), and are termed "complexes." Because the USCG also requires response plans from transportation-related facilities to address a worst case discharge of oil, a separate calculation for the worst case discharge volume for USCG-related facilities is included in the interim final rule which amends 33 CFR part 154 (58 FR 7330; February 5, 1993). All "complexes" must compare both calculations for worst case discharge derived by EPA and USCG and plan for whichever volume is greater.

Part A. Worst Case Discharge Calculation for Onshore Storage Facilities¹

Part A of this worksheet is to be completed by owners or operators of SPCC-regulated facilities (excluding oil production facilities) if it is determined that the facility could cause substantial harm to the environment by self-selection or RA determination, as presented in Appendix C of this part.

If you are the owner or operator of a production facility, please proceed to Part B.

A1. Single-Tank Facilities

For facilities containing only one aboveground storage tank, the worst case volume equals the capacity of the storage tank.

—Final Worst Case Volume: _____

Gal.

—Do not proceed further.

A2. Secondary Containment—Multiple Tank Facilities

Are all aboveground storage tanks or groups of aboveground storage tanks at the facility without adequate secondary containment?² _____ (Y/N)

a. If the answer is yes, the final worst case volume equals the total aboveground oil storage capacity at the facility.

—Final Worst Case Volume: _____

Gal.

—Do not proceed further.

b. If the answer is no, calculate the total aboveground capacity of tanks without adequate secondary containment. If all aboveground storage tanks or groups of aboveground storage tanks at the facility have adequate secondary containment, ENTER "0" (zero). _____ Gal.

¹ "Storage facilities" represent all facilities subject to this part, excluding oil production facilities.

² Secondary containment is defined in § 112.7(e)(2) of 40 CFR Part 112, revised as of July 1, 1992. Acceptable methods and structures for containment are given in § 112.7(c)(1) of 40 CFR Part 112, revised as of July 1, 1992.

—Proceed to question A3.

A3. Distance to Navigable Waters

a. Is the nearest opportunity for discharge (i.e., storage tank, piping, or flowline) adjacent to a navigable water?³ _____ (Y/N)

b. If the answer is yes, calculate 110% of the capacity of the largest single aboveground storage tank within a secondary containment area or 110% of the combined capacity of a group of aboveground storage tanks permanently manifolded together,⁴ whichever is greater, PLUS THE VOLUME DETERMINED IN QUESTION A2(b).⁵

—Final Worst Case Volume: _____

Gal.

—Do not proceed further.

c. If the answer is no, calculate the capacity of the largest single aboveground storage tank within a secondary containment area or the combined capacity of a group of aboveground storage tanks permanently manifolded together, whichever is greater, PLUS THE VOLUME FROM QUESTION A2(b).

—Final Worst Case Volume:⁶ _____

Gal.

Part B. Worst Case Discharge Calculation for Onshore Production Facilities

Part B of this worksheet is to be completed by owners or operators of SPCC-regulated oil production facilities that are determined by the RA to have the potential to cause substantial harm and are required to prepare and submit a response plan. A production facility consists of all wells (producing and exploratory) and related equipment in a single geographical oil or gas field operated by a single operator.

B1. Single-Tank Facility

For facilities containing only one aboveground storage tank, the worst case

³ Navigable waters are defined in 40 CFR Part 110.

⁴ For one or more independent aboveground storage tanks within a secondary containment area, this amount is simply 110% of the capacity of the largest tank. Permanently manifolded tanks are defined as tanks that are designed, installed, and/or operated in such a manner that the multiple tanks function as one storage unit. The owner or operator must provide evidence in the response plan that tanks with common piping or piping systems are not operated as one unit. If such evidence is provided and is acceptable to the RA, the worst case discharge volume would be based on the capacity of 110% of the largest tank within a common secondary containment area or 110% of the largest tank in a single containment area, whichever is greater. For permanently manifolded tanks that function as one storage unit, the worst case discharge volume would be based on 110% of the combined storage capacity of all manifolded tanks or 110% of the largest single tank within a secondary containment area, whichever is greater. For purposes of this determination, permanently manifolded tanks that are separated by internal divisions for each tank are considered to be single tanks and individual manifolded tank volumes are not combined.

⁵ If the volume determined in Question A3(b) is greater than the total aboveground storage capacity of the facility, fill in the lesser of these two volumes in the space provided.

⁶ All "complexes" jointly regulated by EPA and USCG must also calculate the worst case discharge for the transportation-related portions of the facility and plan for whichever volume is greater.

volume equals the capacity of the aboveground storage tank plus the production volume of the well with the highest output (forecasted output for exploratory wells and production wells producing under pressure) at the facility.⁷

—Final Worst Case Volume: _____ Gal.

—Do not proceed further.

B2. Secondary Containment—Multiple Tank Facilities

Are all aboveground storage tanks or groups of aboveground storage tanks at the facility without adequate secondary containment? _____ (Y/N)

a. If the answer is yes, the final worst case volume equals the total aboveground oil storage capacity without adequate secondary containment plus the production volume of the well with the highest output (forecasted output for exploratory wells and production wells producing under pressure) at the facility?⁷

—Final Worst Case Volume: _____ Gal.

—Do not proceed further.

b. If the answer is no, calculate the total aboveground capacity of tanks without adequate secondary containment. If all aboveground storage tanks or groups of aboveground storage tanks at the facility have adequate secondary containment, ENTER "0" (zero). _____ Gal.

—Proceed to question B3.

B3. Distance to Navigable Waters

a. Is the nearest opportunity for discharge (i.e., storage tank, piping, or flowline) adjacent to a navigable water? _____ (Y/N)

b. If the answer to the above question is yes, calculate 110% of the capacity of the largest single aboveground storage tank within a secondary containment area or 110% of the combined capacity of a group of aboveground storage tanks permanently manifolded together,⁸ whichever is greater,

⁷ The production volume for each production well (producing by pumping) is determined from the pumping rate of the well multiplied by 1.5 times the number of days the facility is unattended.

For each exploratory well (and production well producing under pressure) 10,000 feet deep or less, the production volume refers to the maximum 30-day forecasted well rate for the exploratory well or production well producing under pressure.

For each exploratory well (and production well producing under pressure) deeper than 10,000 feet, the production volume refers to the maximum 45-day forecasted well rate for the exploratory well or production well producing under pressure.

⁸ For one or more independent aboveground storage tanks within a secondary containment area, this amount is simply 110% of the capacity of the largest tank. Permanently manifolded tanks are defined as tanks that are designed, installed, and/or operated in such a manner that the multiple tanks function as one storage unit. The owner or operator must provide evidence in the response plan that tanks with common piping or piping systems are not operated as one unit. If such evidence is provided and is acceptable to the RA, the worst case discharge volume would be based on the capacity of 110% of the largest tank within a common secondary containment area or 110% of the largest tank in a single containment area.

plus the production volume of the well with the highest output (forecasted output for exploratory wells producing under pressure), PLUS THE VOLUME FROM QUESTION B2(b).⁹

—Final Worst Case Volume: _____ Gal.

—Do not proceed further.

c. If the answer to the above question is no, calculate the capacity of the largest single aboveground storage tank within a secondary containment area or the combined capacity of a group of aboveground storage tanks permanently manifolded together, whichever is greater, plus the production volume⁷ of the well with the highest output (forecasted output for exploratory wells producing under pressure), PLUS THE VOLUME FROM QUESTION B2(b).

—Final Worst Case Volume:¹⁰ _____ Gal.

Appendix F to Part 112—Guidelines for Determining and Evaluating Required Response Resources for Facility Response Plans

1. Purpose

1.1 The purpose of this appendix is to assist in the identification of response resources necessary to meet the requirements of § 112.20. These guidelines should be used by the facility owner or operator in preparing the response plan and by the Regional Administrator (RA) in reviewing facility response plans.

2. Equipment Operability and Readiness

2.1 All equipment identified in the response plan should be designed to operate in conditions based on location and season. As a result, it is difficult to identify a single catalogue of response equipment that will function effectively in each geographic location.

2.2 If applicable, facilities handling or storing oil in more than one operating environment, as indicated in Table 1, should identify equipment capable of successfully functioning in each operating environment.

2.3 When identifying equipment in the response plan, a facility owner or operator should consider the inherent limitations of the operability of equipment components and response systems. The criteria in Table 1 should be used for evaluating the operability

whichever is greater. For permanently manifolded tanks that function as one storage unit, the worst case discharge volume would be based on 110% of the combined storage capacity of all manifolded tanks or 110% of the largest single tank within a secondary containment area, whichever is greater. For purposes of this determination, permanently manifolded tanks that are separated by internal divisions for each tank are considered to be single tanks and individual manifolded tank volumes are not combined.

⁹ If the volume determined in Question B3(b) is greater than the total aboveground storage capacity of the facility, fill in the lesser of these two volumes in the space provided.

¹⁰ All "complexes" jointly regulated by EPA and USCG must also calculate the worst case discharge for the transportation-related portions of the facility and plan for whichever volume is greater.

in a given environment. These criteria reflect the general conditions in certain operating areas.

2.4 Table 1 lists criteria for oil recovery devices and boom. All other equipment necessary to sustain or support response operations in a geographic area should be designed to function in the same conditions. For example, boats which deploy or support skimmers or boom should be capable of being safely operated in the significant wave heights listed for the applicable operating environment.

2.5 Facility owners or operators should refer to the applicable Area Contingency Plan (ACP), when available, to determine if ice, debris, and/or weather-related visibility are significant factors in evaluating the operability of equipment. The ACP may also identify the average temperature ranges expected in the facility's geographic area. All equipment identified in a response plan should be designed to operate within the specified conditions or ranges.

2.6 This appendix provides guidance on response resource mobilization and response times. The distance to the facility from the storage location of the response resources should be used in determining whether the resources can arrive on-scene within the time required. A facility owner or operator should include the time for notification, mobilization, and travel time of resources identified to meet the small, medium, and worst case discharge requirements in the response plan. An on-water speed of 10 knots and a land speed of 35 miles per hour should be assumed for calculating the travel time to the site of the discharge, unless the facility owner or operator can demonstrate otherwise.

2.7 In identifying equipment, the facility owner or operator should list the storage location, quantity, and manufacturer's make and model as required in appendix G of this part. For oil recovery devices, the effective daily recovery rate, as determined using section 6 of this appendix, should be included. A facility owner or operator is responsible for ensuring that the identified boom has compatible connectors.

3. Determining Response Resources Required for Small Discharges

3.1 A facility owner or operator should ensure that sufficient response resources are available for responding to a small discharge. A small spill is defined as any spill volume less than or equal to 2,100 gallons, but not to exceed the calculated worst case discharge.

3.2 "Complexes," which are facilities regulated by EPA and U.S. Coast Guard (USCG), must also consider planning quantities for the transportation-related transfer portion of the facility. The USCG planning level synonymous with the small discharge is termed the average most probable discharge. The USCG interim final rule which amends 33 CFR part 154 (58 FR 7330; February 5, 1993) defines the average most probable discharge as a discharge of 50 barrels (2,100 gallons). Because "complexes" must compare spill volumes for a small discharge (2,100 gallons) and an average most probable discharge (2,100 gallons), and the

two planning quantities are identical, complex facilities must plan for small spills less than or equal to 2,100 gallons.

3.3 Where applicable, the following resources should be available in the event of this type of discharge:

3.3.1 1,000 feet of containment boom and a means of immediate deployment.

3.3.2 Oil recovery devices with an effective daily recovery rate equal to the amount of oil discharged in a small spill, within two hours of the detection of an oil discharge.

3.3.3 Oil storage capacity for recovered oily material as indicated in section 8.2 of this appendix.

4. Determining Response Resources Required for Medium Discharges

4.1 A facility owner or operator should ensure that sufficient response resources are available for responding to a medium discharge of oil from a facility. This response will require resources capable of containing and collecting up to 36,000 gallons of oil or 10 percent of the capacity of the largest aboveground storage tank, whichever is less.

4.2 "Complexes" regulated by EPA and USCG must also consider planning quantities for the transportation-related transfer portion of the facility. The USCG planning level synonymous with the medium discharge is termed the maximum most probable discharge. The USCG interim final rule which amends 33 CFR part 154 (58 FR 7330; February 5, 1993) defines the maximum most probable as a discharge of 1,200 barrels (50,400 gallons) or 10 percent of the worst case discharge, whichever is less. Owners and operators of "complexes" must compare spill volumes for a medium discharge and a maximum most probable discharge and plan for whichever quantity is greater.

4.3 Oil recovery devices identified to meet the applicable medium discharge volume planning criteria, should be able to arrive on-scene within 6 hours in higher volume port areas and the Great Lakes, and within 12 hours in all other areas. Higher volume port areas and Great Lakes areas are defined in Attachment C-III of appendix C of this part.

4.4 Because rapid control, containment, and removal of oil is critical in reducing spill impact, the effective daily recovery rate for oil recovery devices should equal 50 percent of the planning volume applicable to the facility as determined in section 4.1 of this appendix. The effective daily recovery rate for oil recovery devices identified in the plan should be determined using the criteria in section 6 of this appendix.

4.5 In addition to oil recovery capacity, the plan should identify and ensure the availability of, through contract or other approved means, sufficient quantity of boom available within the recommended response times for oil collection and containment and protection of shoreline areas. The response plan should identify and ensure the availability of the quantity of boom available through contract or other approved means.

4.6 The plan should indicate the availability of temporary storage capacity to meet the requirements of section 8.2 of this appendix. If available storage capacity is

insufficient to meet this requirement, then the effective daily recovery rate should be derated to the limits of the available storage capacity.

4.7 The following is an example of a medium discharge volume planning calculation for equipment identification in a higher volume port areas: The facility's largest aboveground storage tank volume is 840,000 gallons. Ten percent of this capacity is 84,000 gallons. Since 10 percent of the facility's largest tank, or 84,000 gallons, is greater than 36,000 gallons, 36,000 gallons is used as the planning volume. The effective daily recovery rate should be 50 percent of the planning volume, or 18,000 gallons per day. The ability of oil recovery devices to meet this capacity should be calculated using the procedures in section 6 of this appendix. Temporary storage capacity available on-scene should equal twice the daily recovery rate as indicated in section 8.2 of this appendix, or 36,000 gallons per day. The facility owner or operator would use this information to identify and ensure the availability of, through contract or other approved means, the required response resources. The facility owner should also need to identify how much boom is available for use.

5. Determining Response Resources Required for the Worst Case Discharge to the Maximum Extent Practicable

5.1 A facility owner or operator should specify the availability of sufficient response resources to respond to the worst case discharge as calculated using appendix E of this part. Section 7 describes the method used in determining adequate response resources for a worst case discharge. A worksheet is provided as Attachment F-1 at the end of this appendix to simplify the procedures involved in calculating the planning volume for response resources for the worst case discharge.

5.2 "Complexes" regulated by EPA and USCG must also consider planning for the worst case discharge at the transportation-related portion of the facility. Because the USCG also requires response plans from transportation-related facilities to address a worst case discharge of oil in the interim final rule which amends 33 CFR part 154 (58 FR 7330; February 5, 1993), a separate calculation for the worst case discharge volume has been developed for USCG-related facilities. All complex facilities must compare both calculations of worst case discharge derived by EPA and USCG and plan for whichever volume is greater.

5.3 Oil spill recovery devices (i.e., equipment and resources) identified to meet the applicable worst case discharge planning volume should be able to arrive on the scene of a discharge within the time specified for the applicable response tier listed below:

	Tier 1 (hrs)	Tier 2 (hrs)	Tier 3 (hrs)
Higher volume port area	6	30	54
Great Lakes	6	30	54
All other river, inland, and nearshore areas	12	36	60

The three levels of response tiers apply to the amount of time in which response equipment and resources should arrive at the scene of a spill to respond to the worst case discharge planning volume. For example, at a worst case discharge in an inland area, the first tier of response resources should arrive at the scene of the spill within 12 hours; the second tier of response resources should arrive within 36 hours; and the third tier of response resources should arrive within 60 hours.

5.4 The effective daily recovery rate for oil recovery devices identified in the response plan should be determined using the criteria in section 6 of this appendix. The storage locations of all equipment used to fulfill the requirements for each tier should be identified. The owner or operator of a facility whose required daily recovery capacity exceeds the applicable contracting caps in Table 5 should identify sources of additional equipment, its location, and the arrangements made to obtain this equipment during a response. While general listings of available response equipment may be used to identify additional sources, the response plan should identify the specific sources and quantities of equipment that a facility owner or operator has considered in their planning.

5.5 In addition to oil spill recovery devices, a facility owner or operator should identify and ensure the availability of, through contract or other approved means, sufficient quantities of boom that can arrive on-scene within the required response times for oil containment and collection and protection of shorelines areas.

5.6 A facility owner or operator should identify the availability of temporary storage capacity to meet the requirements of section 8.2 of this appendix. If available storage capacity is insufficient to meet this recommendation, then the effective daily recovery rate should be derated to the limits of the available storage capacity.

6. Determining Effective Daily Recovery Rate for Oil Recovery Devices

6.1 Oil recovery devices identified by a facility owner or operator should include information on the manufacturer, model, and effective daily recovery rate. These rates should be used to determine whether there is sufficient capacity to meet, to the maximum extent practicable, the applicable planning criteria for a small discharge; medium discharge; and worst case discharge.

6.2 For the purposes of determining the effective daily recovery rate of oil recovery devices, the following method should be used. This method considers potential limitations due to available daylight, weather, sea state, and percentage of emulsified oil in the recovered material.

6.2.1 The following formula should be used to calculate the effective daily recovery rate:

$$R = T \times 24 \text{ hours} \times E$$

R—Effective daily recovery rate

T—Throughput rate in barrels per hour (nameplate capacity)

E—20% Efficiency factor (or lower factor as determined by RA)

6.2.2 For those devices in which the pump limits the throughput of liquid,

throughput rate should be calculated using the pump capacity.

6.2.3 For belt- or mop-type devices, the throughput rate should be calculated using the speed of the belt or mop; surface area of the belt or mop in contact with the water surface; and the oil encounter rate. For purposes of this calculation, the assumed thickness of oil should be 1/4 inch.

6.3 As an alternative to 6.2, a facility owner or operator may provide adequate evidence that a different effective daily recovery rate should be applied for a specific oil recovery device. Adequate evidence is actual verified performance data in spill conditions or tests using American Society of Testing and Materials (ASTM) Standard F631-80, F808-83 (1988).

6.3.1 The following formula should be used to calculate the effective daily recovery rate under this alternative:

$R = D \times U$

R—Effective daily recovery rate

D—Average oil recovery rate in barrels per hour (Item 26 in F808-83; Item 13.1.15 in F631-80; or actual performance data)

U—Hours per day that a facility owner or operator can document capability to operate equipment under spill conditions. Ten hours per day should be used unless a facility owner or operator can demonstrate that the recovery operation can be sustained for longer periods.

6.4 A facility owner or operator submitting a response plan should provide data that supports the effective daily recovery rates for the oil recovery devices listed. The following is an example of these calculations:

A weir skimmer identified in a response plan has a manufacturer's rated throughput at the pump of 267 gallons per minute (gpm).

$T = 267 \text{ gpm} = 381 \text{ barrels per hour}$

$R = 381 \times 24 \times 2 = 1,829 \text{ barrels per day}$

After testing using ASTM procedures, the skimmer's oil recovery rate is determined to be 220 gpm. The facility owner or operator identifies sufficient resources available to support operations for 12 hours per day.

$220 \text{ gpm} = 314 \text{ barrels per hour}$

$R = 314 \times 12 = 3,768 \text{ barrels per day}$

The facility owner or operator will be able to use the higher rate if sufficient temporary oil storage capacity is available.

7. Calculating Planning Volumes for a Worst Case Discharge

7.1 A facility owner or operator shall plan for a response to the facility's worst case discharge volume of oil. The worst case discharge calculation worksheet appears in appendix E of this part. Planning for on-water recovery should take into account a loss of some oil to the environment due to evaporative and natural dissipation, potential increases in volume due to emulsification, and the potential for deposit of oil on the shoreline.

7.2 The procedures discussed in sections 7.2.1-7.2.4 should be used to calculate the planning volume for response resources used by a facility owner or operator in determining the required on-water recovery capacity:

7.2.1 The following should be determined: the worst case discharge volume

of oil in the facility, the appropriate group(s) for the type of oil handled or stored at the facility (persistent (Groups 2, 3, 4) or non-persistent (Group 1)), and the geographic location of the facility. See Attachment F-2 for definitions of persistent and non-persistent oils. Facilities that handle or store oil from different oil groups should calculate each group separately. This information should be used with Table 2 to determine the percentages of the total volume required for removal capacity planning. Table 2 divides the volume into three categories: Oil lost to the environment; oil deposited on the shoreline; and oil available for on-water recovery.

7.2.2 The on-water oil recovery volume for response resources should be adjusted using the appropriate emulsification factor found in Table 3.

7.2.3 The adjusted volume is multiplied by the on-water oil recovery resource mobilization factor found in Table 4, resulting in total on-water oil recovery capacity in barrels per day that should be identified or contracted to arrive on-scene within the applicable time for each response tier. The on-water resource recovery mobilization factor depends on the operating area and the three response tiers. For higher volume port areas and the Great Lakes, as defined in Attachment C-III of appendix C, of this part, the contracted tiers of resources should be located so that they can arrive on-scene within 6 hours for tier 1, 30 hours for tier 2, and 54 hours for tier 3 of the discovery of an oil discharge. For all other river, inland, and near shore areas, response resources should arrive within 12, 36, and 60 hours for tiers 1, 2, and 3, respectively.

7.2.4 The resulting on-water recovery capacity in barrels per day for each tier is used to identify response resources necessary to sustain operations in the applicable geographic area. The equipment should be capable of sustaining operations for the time period specified in Table 2. A facility owner or operator should identify and ensure the availability of, through contract or other approved means, sufficient oil spill recovery devices to provide the effective daily oil recovery capacity required. If the required capacity exceeds the applicable cap specified in Table 5, then a facility owner or operator should contract only for the quantity of resources required to meet the cap, but should identify sources of additional resources as indicated in section 5.4 of this appendix. The owner or operator of a facility whose planning volume exceeds the cap in 1993 should make arrangements for additional capacity to be under contract by 1998. The process should be repeated in 1998 and 2003. For a facility that carries multiple groups of oil, the required effective daily recovery capacity for each group should be calculated before applying the cap.

7.3 The procedures discussed in sections 7.3.1-7.3.3 should be used to calculate the planning volume for response resources for identifying shoreline cleanup capacity:

7.3.1 The following should be determined: The worst case discharge volume of oil for the facility; the appropriate group(s) for the type of oil handled or stored at the facility (persistent (Groups 2, 3, 4) or

non-persistent (Group 1)); and the geographic area(s) in which the facility operates. For a facility storing oil from different groups, each group should be calculated separately. Using this information, Table 2 should be used to determine the percentages of the total volume of oil required for shoreline cleanup resource planning.

7.3.2 The shoreline cleanup planning volume for resource planning should be adjusted to reflect an emulsification factor using the same procedure as described in section 7.2.2.

7.3.3 The resulting volume should be used to identify response resources necessary for shoreline cleanup.

7.4 The following is an example of the procedure described above: A facility with a 270,000 barrel (11.3 million gallons) capacity for #6 oil (specific gravity .96) is located in a higher volume port area. The facility is on a peninsula and has docks on both the ocean and bay side. The facility has four aboveground storage tanks with a combined total capacity of 80,000 barrels (3.36 million gallons) and no secondary containment. The remaining facility tanks are inside secondary containment structures. The largest aboveground storage tank (90,000 barrels or 3.78 million gallons) has its own secondary containment. Two 50,000 barrel (2.1 million gallon) tanks (that are not connected by a manifold) are within a common secondary containment tank area, which is capable of holding 100,000 barrels (4.2 million gallons) plus sufficient freeboard.

The worst case discharge for the facility is calculated by adding the capacity of all aboveground storage tanks without secondary containment (80,000 barrels) plus 110% of the capacity of the largest aboveground tank inside secondary containment (110% x 90,000 barrels = 99,000 barrels). The additional 10 percent is added to the capacity of the tanks because the facility is located adjacent to navigable water. The resulting worst case discharge volume is 179,000 barrels or 7.52 million gallons.

Since the guidelines for tiers 1, 2, and 3 for inland and nearshore exceed the caps identified in Table 5, the facility owner should contract for 10,000 barrels per day (bpd) for tier 1, 20,000 bpd for tier 2, and 40,000 bpd for tier 3. Resources for the remaining 8,795 bpd for tier 1, 11,325 bpd for tier 2, and 10,120 bpd for tier 3 should be identified but not contracted for in advance. The facility owner or operator should also identify or contract for quantities of boom identified in their response plan for the environmentally sensitive areas within the area potentially impacted by a worst case discharge from the facility. Appendix D presents a listing of environmentally sensitive areas and Attachment C-III of appendix C provides a method for calculating a planning distance to sensitive areas and drinking water intakes which may be impacted in the event of a worst case discharge.

8. Additional Equipment Necessary to Sustain Response Operations

8.1 A facility owner or operator should ensure that sufficient numbers of trained personnel and boats, aerial spotting aircraft,

containment boom, sorbent materials, boom anchoring materials, and other supplies are available to sustain response operations to completion. A facility owner or operator is not required to list these resources, but should certify their availability.

8.2 A facility owner or operator should evaluate the availability of adequate temporary storage capacity necessary to meet

the effective daily recovery rates from equipment identified in the plan. Because of the inefficiencies of oil spill recovery devices, response plans should identify daily storage capacity equivalent to twice the effective daily recovery rate required on scene. This capacity may be reduced if a facility owner or operator can demonstrate that the efficiencies of the oil recovery

devices will reduce the overall volume of oily material that requires storage.

8.3 A facility owner or operator should ensure that their oil spill removal organization has the capability to arrange for disposal of recovered oil products. Specific disposal procedures will be addressed in the applicable ACP.

TABLE 1.—RESPONSE RESOURCE OPERATING CRITERIA OIL RECOVERY DEVICES

Operating environment		Significant wave height ¹	Sea state
River		≤1 foot	1.
Inland		≤3 feet	2.
Great Lakes		≤4 feet	2-3.
Boom Use:			
Boom property	River	Inland	Great Lakes
Significant wave height ¹	≤1	≤3	≤4.
Sea state	1	2	2-3.
Boom height—in. (draft plus freeboard)	6-18	18-42	18-42.
Reserve buoyancy to weight ratio	2:1	2:1	2:1.
Total tensile strength—lbs	4,500	15-20,000	15-20,000.
Skirt fabric tensile strength—lbs	200	300	300.
Skirt fabric tear strength—lbs	100	100	100.

¹ Oil recovery devices and boom should be at least capable of operating in wave heights up to and including the values listed in Table 1 for each operating environment.

TABLE 2.—REMOVAL CAPACITY PLANNING TABLE

Spill location	Nearshore/inland Great Lakes			Rivers and canals		
Sustainability of on-water oil recovery	4 days			3 days		
Oil group	Percent natural dissipation	Percent recovered floating oil	Percent oil onshore	Percent natural dissipation	Percent recovered floating oil	Percent oil onshore
1—Non-persistent oils	80	20	10	80	10	10
2—Light crudes	50	50	30	40	15	45
3—Medium crudes and fuels	30	50	50	20	15	65
4*—Heavy crudes and fuels	10	50	70	5	20	75

* For planning purposes, non-petroleum oil must be considered a Group 4 persistent oil.

TABLE 3.—EMULSIFICATION FACTORS FOR PETROLEUM OIL GROUPS¹

Non-persistent oil:	
Group 1	1.0
Persistent oil:	
Group 2	1.8
Group 3	2.0
Group 4	1.4

¹ See Attachment F-2 for group designations for non-persistent and persistent oils.

TABLE 4.—ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

Area	Tier 1	Tier 2	Tier 3
River30	.40	.60
Inland/Nearshore Great Lakes15	.25	.40

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

TABLE 5.—RESPONSE CAPABILITY CAPS BY GEOGRAPHIC AREA

	Tier 1	Tier 2	Tier 3
February 18, 1993:			
All except rivers and canals, Great Lakes	10K bbls/day	20K bbls/day	40K bbls/day
Great Lakes	5K bbls/day	10K bbls/day	20K bbls/day
Rivers and canals	1,500 bbls/day	3,000 bbls/day	6,000 bbls/day
February 18, 1998:			
All except rivers and canals, Great Lakes	12.5K bbls/day	25K bbls/day	50K bbls/day
Great Lakes	6.35K bbls/day	12.3K bbls/day	25K bbls/day
Rivers	1.875 bbls/day	3,750 bbls/day	7,500 bbls/day
February 18, 2003:			
All except rivers and canals, Great Lakes	TBD	TBD	TBD
Great Lakes	TBD	TBD	TBD
Rivers and canals	TBD	TBD	TBD

Note: The caps show cumulative overall effective daily recovery rate, not incremental increases.
TBD=To Be Determined.

Attachment F-1—Worksheet to Plan Volume of Response Resources for Worst Case Discharge

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix E of this part)

Step (B) Oil Group ¹ (Table 3 and Attachment F-2) _____

Step (C) Geographic Area (choose one)

- ☐ Nearshore/Inland Great Lakes
☐ or River and Canals

Step (D) Percentages of Oil (Table 2)
Percent Lost to Natural Dissipation _____ (D1)

Percent Recovered Floating Oil _____ (D2)

Percent Oil Onshore _____ (D3)

Step (E1) On-Water Recovery

Step (D2) × Step (A)

100

Step (E2) On-Shore Recovery

Step (D3) × Step (A)

100

Step (F) Emulsification Factor (Table 3)

Step (G) On-Water Oil Recovery Resource Mobilization Factor (Table 4)

Tier 1 _____ (G1)

Tier 2 _____ (G2)

Tier 3 _____ (G3)

Attachment F-1 continued—Worksheet to Plan Volume of Response Resources for Worst Case Discharge (continued)

Part II On-Water Recovery Capacity (barrels/day)

Tier 1 _____ Step (E1) × Step (F) × Step (G1)

Tier 2 _____ Step (E1) × Step (F) × Step (G2)

¹ Facilities storing multiple groups of oil should prepare a separate worksheet for each group.

Tier 3 _____ Step (E1) × Step (F) × Step (G3)

Part III Shoreline Cleanup Volume (barrels/day) _____ Step (E2) × Step (F)

Part IV Response Capacity By Geographic Area (Table 5) (Amount needed to be contracted for, barrels/day)

Tier 1 _____ (J1)

Tier 2 _____ (J2)

Tier 3 _____ (J3)

Part V Amount Needed to be Identified, but not Contacted for in Advance (barrels/day)

Tier 1 _____ Part II Tier 1—Step (J1)

Tier 2 _____ Part II Tier 2—Step (J2)

Tier 3 _____ Part II Tier 3—x Step (J3)

Note: To convert to gallons/day, multiply the quantities in Part II—Part V by 42

Example to Attachment F-1—Worksheet to Plan Volume of Response Resources for Worst Case Discharge

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix E of this part); 179,000

Step (B) Oil Group ¹ (Table 3 and Attachment F-2); 4

Step (C) Geographic Area (choose one)
X—Nearshore/Inland Great Lakes or River and Canals

Step (D) Percentages of Oil (Table 2)
Percent Lost to Natural Dissipation; 10 (D1)

Percent Recovered Floating Oil; 50 (D2)

Percent Oil Onshore; 70 (D3)

Step (E1) On-Water Recovery

Step (D2) × Step (A)

100

89,500

¹ Facilities storing multiple groups of oil should prepare a separate worksheet for each group.

Step (E2) On-Shore Recovery

Step (D3) × Step (A)

125,300

Step (F) Emulsification Factor (Table 3); 1.4

Step (G) On-Water Oil Recovery Resource Mobilization Factor (Table 4)

Tier 1; 0.15 (G1)

Tier 2; 0.25 (G2)

Tier 3; 0.40 (G3)

Part II On-Water Recovery Capacity (barrels/day)

Tier 1; 18,795

Step (E1) × Step (F) × Step (G1)

Tier 2; 31,325

Step (E1) × Step (F) × Step (G2)

Tier 3; 50,120

Step (E1) × Step (F) × Step (G3)

Part III Shoreline Cleanup Volume (barrels/day); 175,420

Step (E2) × Step (F)

Part IV Response Capacity By Geographic Area (Table 5)

(Amount needed to be contracted for in barrels/day)

Tier 1; 10,000 (J1)

Tier 2; 20,000 (J2)

Tier 3; 40,000 (J3)

Part V Amount Needed to be Identified, but not Contacted for in Advance (barrels/day)

Tier 1; 8,795

Part II Tier 1—Step (J1) Step (J3)

Tier 2; 11,325

Part II Tier 2—Step (J2)

Tier 3; 10,120

Part II Tier 3—x

Note: To convert to gallons/day, multiply the quantities in Part II—Part V by 42. Attachment F-2

Attachment F-2—Definitions of Non-Persistent and Persistent Oils

Non-persistent or Group I oil includes:

- (1) a petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions:
 - (i) at least 50% of which by volume, distill at a temperature of 340 degrees C (645 degrees F), and
 - (ii) at least 95% of which by volume, distill at a temperature of 370 degrees C (700 degrees F);
- (2) a non-petroleum oil with a specific gravity less than 0.8.

Non-petroleum oil—oil of any kind that is not petroleum-based. It includes, but is not limited to, animal and vegetable oils.

Persistent oil includes:

- (1) a petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. Persistent oils are further classified based on specific gravity as follows:
 - (i) Group II—specific gravity less than 0.85.
 - (ii) Group III—specific gravity between 0.85 and less than 0.95.
 - (iii) Group IV—specific gravity 0.95 or greater.
- (2) a non-petroleum oil with a specific gravity of 0.8 or greater. These oils are further classified based on specific gravity as follows:
 - (i) Group II—specific gravity between 0.8 and less than 0.85.
 - (ii) Group III—specific gravity between 0.85 and less than 0.95.
 - (iii) Group IV—specific gravity of 0.95 or greater.

Appendix G—Facility-Specific Response Plan

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1.0 Standard Facility-Specific Response Plan

Introduction

Owners or operators of facilities regulated under this part, which pose a threat of substantial harm to the environment by discharging oil into water bodies or adjoining shorelines, are required to prepare and submit facility-specific response plans to EPA in accordance with the provisions in this Appendix. Facility owners or operators shall determine whether their facility poses substantial harm by using the flowchart presented in Attachment C-1 of Appendix C to the proposed rule. Response plans must be sent to the appropriate EPA Regional office. The attached Figure G-1 lists each EPA Regional office and the EPA section and address where owners and operators should submit their response plans. Those facilities deemed by the Regional Administrator (RA) to pose a threat of significant and substantial harm to the environment will have their plans reviewed and approved by EPA. In certain cases, information required in the model response plan is similar to information currently maintained in the facility's SPCC Plan. In these cases, owners and operators may reproduce the information and include a photocopy in the response plan.

BILLING CODE 6560-60-P

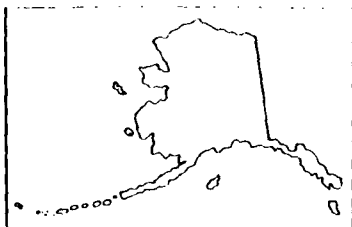
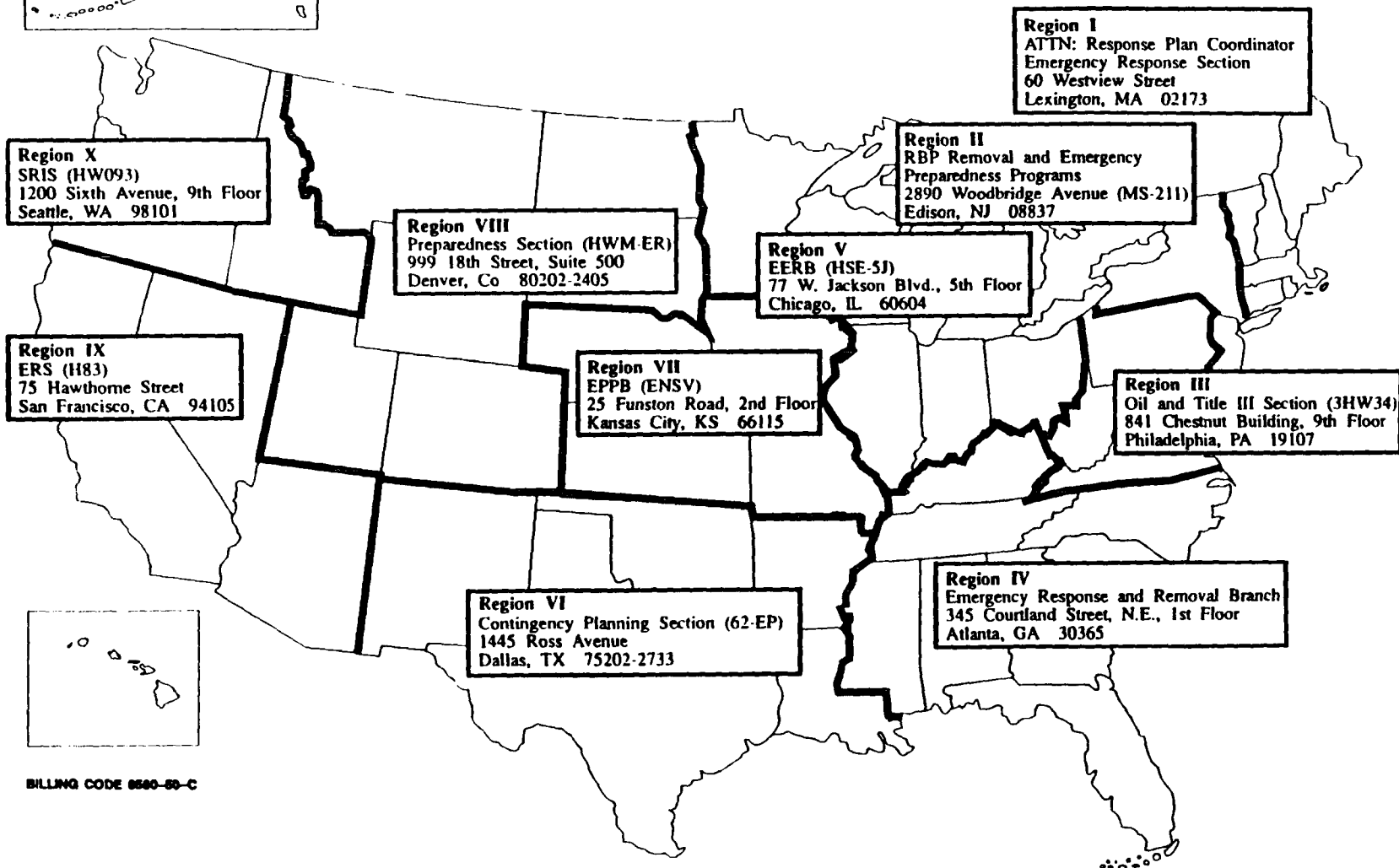


FIGURE G - 1

EPA REGIONAL OFFICES FOR RESPONSE PLAN SUBMITTAL



BILLING CODE 8680-80-C

1.1 Emergency Response Action Plan.

Several sections of the response plan will be co-located and tabbed for easy access by response personnel during an actual emergency or oil spill. This collection of sections will be called the Emergency Response Action Plan. The Agency intends that the Action Plan contain only as much information as is necessary to combat the spill and be arranged so response actions are not delayed. The Action Plan may be arranged in a number of ways. For example, the sections of the Emergency Response Action Plan may be photocopies or condensed versions of the forms included in the associated sections of the response plan. Each Emergency Response Action Plan section should be tabbed for quick reference. The Action Plan may be maintained in the front of the same binder that contains the complete response plan or it may be contained in a separate binder. In the latter case, both binders should be kept together so that the entire plan can be accessed by the Emergency Response Coordinator and appropriate spill response personnel. The Emergency Response Action Plan shall be made up of the following sections:

1. Emergency Response Coordinator Information—(Section 1.2) partial
 2. Emergency Notification Phone List—(Section 1.3.1) complete
 3. Spill Response Notification Form—(Section 1.3.1) complete
 4. Equipment List and Location—(Section 1.3.2) complete
 5. Facility Response Team—(Section 1.3.3) partial
 6. Evacuation Plan—(Section 1.3.4) condensed
 7. Immediate Actions—(Section 1.7) condensed
 8. Facility Diagram—(Section 1.9) complete
- Collectively, the actions described in the sections listed above represent those which should be taken to stop the source of the spill, notify the appropriate people, and initiate procedures to prevent or minimize the spreading of oil.

1.2 Facility Information

The facility information form is designed to provide an overview of the site and a description of past activities at the facility. Much of the information required by this section may be obtained from the facility's existing SPCC Plan.

Facility name and location: Enter facility name and street address of the facility. Enter the address of corporate headquarters only if corporate headquarters are physically located at the facility. Include city, county, state, zip code, and phone number.

Latitude and Longitude: Enter the latitude and longitude of the facility. Include degrees, minutes, and seconds of the main entrance of the facility.

Wellhead Protection Area: Indicate if the facility is located in or drains into a wellhead protection area as defined by the Safe Drinking Water Act of 1986 (SDWA). The response plan requirements in the Wellhead

Protection Program are outlined by the State in which the facility resides.¹

Owner/operator: Write the name of the company or person operating the facility and the name of the person or company that owns the facility, if the two are different. List the address of the owner, if the two are different.

Emergency Response Coordinator: Write the name of the emergency response coordinator for the entire facility. If more than one person is listed, each individual indicated in this section shall have full authority to implement the facility response plan. For each individual, list: name, position, address, emergency phone number, and specific training experience.

Date of Oil Storage Start-up: Enter the year which the present facility first started storing oil.

Current Operation: Briefly describe the facilities operations and include Standard Industry Classification (SIC) code.

Dates and Type of Substantial Expansion: Include information on expansions that have occurred at the facility. Examples of such expansions include, but are not limited to: Throughput expansion, addition of a product line, change of a product line, and installation of additional storage capacity. The data provided should include all facility historical information and detail the expansion of the facility. An example of substantial expansion is any material alteration of the facility which causes the owner or operator of the facility to re-evaluate and increase the response equipment necessary to adequately respond to a worst case discharge from the facility. Date of Last Update: _____

Facility Information Form

Facility Name: _____
 Location (Street Address): _____
 City _____
 State _____
 Zip _____
 County _____
 Phone Number () _____
 Latitude: _____
 Degree _____
 Minutes _____
 Seconds _____
 Longitude: _____
 Degree _____
 Minutes _____
 Seconds _____
 Wellhead Protection Area: _____
 Owner: _____
 Owner Address (if different from Facility Address) _____
 Location (Street Address): _____
 City _____
 State _____
 Zip _____
 County _____
 Phone Number () _____
 Operator (if not Owner): _____
 Emergency Response Coordinator(s): _____

¹ States with EPA approved Wellhead Protection programs are: Arkansas, Connecticut, Delaware, Illinois, Louisiana, Maine, Maryland, Massachusetts, Nevada, New Hampshire, New Mexico, New York, Oklahoma, Puerto Rico, Rhode Island, Texas and Vermont (as of August, 1992).

Name: _____
 Position: _____
 Address: _____
 Emergency Phone Number: _____
 Date of Oil Storage Start-up: _____
 Current Operation: _____
 Q _____

Date(s) and Type(s) of Substantial Expansion(s) (Attach additional sheets if necessary)
 Q _____

1.3 Emergency Response Information

The information provided in this section should describe what will be needed in an actual emergency involving the discharge of oil or a combination of hazardous substances and oil discharge. The Emergency Response Information section of the plan must include the following components:

1. The information provided in the Emergency Notification Phone List in section 1.3.1 identifies and prioritizes the names and phone numbers of the organizations and personnel that need to be notified immediately in the event of an emergency. This section should include all the appropriate phone numbers for the facility. These numbers should be verified each time the plan is updated. The contact list should be accessible to all facility employees to ensure that, in case of a discharge, any employee on site could immediately notify the appropriate parties.

2. The Spill Response Notification Form in section 1.3.1 creates a checklist of information that should be provided to the National Response Center (NRC) and other response personnel. All information on this checklist should be known at the time of notification, or be in the process of being collected. This notification form is based on a similar form used by the NRC. Note: Do not delay notification to collect the information on the list.

3. Section 1.3.2 provides a description of the facility's list of emergency response equipment, equipment testing, and location of the equipment. When appropriate, the amount of release that emergency response equipment can handle and any limitations (e.g. launching sites) should be described.

4. Section 1.3.3 lists the facility response personnel, including those employed by the facility and those under contract to the facility for response activities, the amount of time needed for personnel to respond, their responsibility in the case of an emergency, and their level of training. Three different forms are included in this section. First, the Emergency Response Personnel List is to be composed of personnel employed by the facility whose duties involve responding to emergencies, including oil spills even when they are not physically present at the site. An example of this type of person may be the Building Engineer-in-Charge or Plant Fire Chief. Second, the Facility Response Team List is to be composed of personnel (referenced by job title/position) and contractors that will respond immediately upon discovery of an oil spill or other

emergency. These are to be persons normally on the facility premises or primary response contractors (i.e., the first people to respond). Examples of these personnel would be the Facility Hazardous Materials (HAZMAT) Spill Team 1, Facility Fire Engine Company 1, Production Supervisor, or Transfer Supervisor. The last form is a list of the Emergency Response Contractors (both primary and secondary) retained by the facility. These should be listed also on the second form described above. Any changes in contractor status should be reflected in updates to the response plan. Evidence of contracts with response contractors should be included so that availability of resources can be verified. Company personnel must be able to respond immediately and adequately if contractor support is not available.

5. Section 1.3.4 lists factors that should be considered when preparing an evacuation plan.

6. Section 1.3.5 references the facility response coordinators' responsibilities in the event of an emergency.

This information should aid in the assessment of the facility's ability to respond to a worst case discharge and identify additional assistance that may be needed. In addition, it is recommended that the facility produce a wallet-size card containing a checklist of the immediate response and notification steps to be taken in the event of an oil discharge.

Date of Last Update: _____

1.3.1 Notification

Emergency Notification Phone List, Whom To Notify

Reporter's Name _____
Date _____
Facility Name _____
Owner Name _____
Facility Identification Number _____
Date and Time of Each NRC Notification _____

	Organization	Phone number
1.	National Response Center (NRC).	1-800-424-8802
2.	Facility Response Coordinator.	
	Evening Phone ..	
3.	Company Response Team.	
	Evening Phone ..	
4.	On-Scene Coordinator (OSC).	
	Evening Phone ..	
5.	Area Committee	
	Evening Phone ..	
6.	Local Response Team (Fire Dept./Cooperatives).	
7.	Fire Marshall	
	Evening Phone ..	
8.	State Emergency Response Commission (SERC).	
	Evening Phone ..	
9.	State Police	

	Organization	Phone number
10.	Local Emergency Planning Committee (LEPC).	
11.	Local Water Supply System.	
	Evening Phone ..	
12.	Weather Report ..	
13.	Local Television/ Radio Station for Evacuation Notification.	
14.	Hospitals	

Spill Response Notification Form

Reporter's Last Name _____ First _____
M.I. _____
Phone Numbers: () - , -
() -

Company _____
Organization Type _____
Position _____
Address _____

City _____
State _____
Zip _____

Were Materials Released _____ (Y/N)?

Confidential _____ (Y/N)?

Meeting Federal Obligations to Report _____ (Y/N)?

Date Called _____

Calling for Responsible Party _____ (Y/N)?

Time Called _____

Incident Description

Source and/or Cause of Incident _____

Date _____

Time of Incident _____ AM/PM

Incident Address/Location _____

Nearest City _____

State _____

County _____

Zip _____

Distance from City _____

Units _____

Direction from City _____

Section _____

Township _____

Range _____

Container Type _____

Tank Capacity _____

Units _____

Facility Capacity _____

Units _____

Facility Latitude _____ Degrees _____ Minutes

_____ Seconds

Facility Longitude _____ Degrees _____ Minutes

_____ Seconds

Material _____

CHRIS Code _____

Released Quantity _____

Unit of Measure _____

Material Released in Water _____

Quantity _____

Unit/Measure _____

Response Action

Actions Taken To Correct, Control or Mitigate Incident _____

Impact

Number of Injuries _____

Number of Deaths _____

Were there Evacuations _____ (Y/N)?

Number Evacuated _____

Was there any Damage _____ (Y/N)?

Damage in Dollars (approximate) _____

Medium Affected _____

Description _____

More Information about Medium _____

Additional Information

Any information about the incident not recorded elsewhere in the report? _____

Caller Notifications

EPA _____ (Y/N)?

USCG _____ (Y/N)?

State _____ (Y/N)?

Other _____ (Y/N)?

Describe _____

1.3.2 Equipment

Date of Last Update: _____

Equipment List

Last Inspection or Equipment Test Date _____

Inspection Frequency _____

Regional Response Team (RRT) approval: _____

1. Skimmers/Pumps—Operational Status _____

Type, Model, and Year (Type) _____ (Model) _____ (Year) _____

Number _____

Capacity _____ gal./min.

Daily Effective Recovery Rate _____

Storage Location _____

12. Selection of a mitigation command center; and

13. Location of shelter at the facility as an option to evacuation.

When preparing this section of the response plan, the *Handbook of Chemical Hazard Analysis Procedures* by the Federal Emergency Management Agency (FEMA), Department of Transportation (DOT), and EPA should be referenced. *The Handbook of Chemical Hazard Analysis Procedures* is available from: FEMA, Publication Office, 500 C Street, SW., Washington, DC 20472, (202) 646-3484.

1.3.5 Coordinator's Duties

Duties of the Emergency Response Coordinator

The duties of the designated emergency response coordinator or an adequately trained and qualified person appointed by the coordinator are specified by the rule in § 112.20(h)(3)(ix). The coordinator's duties must be described and be consistent with the minimum requirements in the rule. In addition, the emergency response coordinator and any qualified appointee must be identified with the Facility Information in section 1.2.

1.4 Hazard Evaluation

This section asks the facility owner/operator to examine the facility's operations closely and to predict where releases could occur. Hazard evaluation is a widely used industry practice that allows owners and operators to develop a complete understanding of potential hazards and the response actions necessary to address these hazards. The *Handbook of Chemical Hazard Analysis Procedures*, prepared by the EPA, DOT, and the Federal Emergency Management Agency and the *Hazardous Materials Emergency Planning Guide* (NRT-1), prepared by the National Response Team are good references for conducting a hazard analysis.

Hazard identification and evaluation will assist facility owners and operators in planning for potential releases, thereby reducing the severity of discharge impacts that may occur in the future. The evaluation also may help the operator identify and correct potential sources of releases. In addition, special hazards to workers and emergency response personnel's health and safety should be evaluated, as well as the facility's spill history.

1.4.1 Hazard Identification

The following directions should be used for completing the Tank and Surface Impoundment (SI) forms that are part of this section. Similar worksheets should be developed for any other type of storage containers.

1. List each tank at the facility with a separate and distinct identifier. Begin aboveground tank identifiers with an "A" and below ground tanks identifiers with a "B", or submit multiple sheets with the aboveground tanks and below ground tanks on separate sheets.

2. Use gallons for the maximum capacity of a tank; and use square feet for the area.

3. Using the appropriate identifiers and the following instructions, fill in the appropriate forms:

- **Tank or SI number**—Using the aforementioned identifiers (A or B) or multiple reporting sheets, identify each tank or SI at the facility that stores oil or hazardous materials.

- **Substance Stored**—For each tank or SI identified, record the material that is stored therein. If the tank or SI is used to store more than one material, list all the stored materials.

- **Quantity Stored**—For each material stored in each tank or SI, report the average volume of material stored on any given day.

- **Tank Type or Surface Area/Year**—For each tank, report the type of tank (e.g. floating top), and the year the tank was originally installed. If the tank has been refabricated, the year that the latest refabrication was completed should be recorded in parentheses next to the year installed. For each SI, record the surface area of the impoundment and the year it went into service.

- **Maximum Capacity**—Record the operational maximum capacity for each tank and SI. If the maximum capacity varies with the season, record the upper and lower limits.

- **Failure/Cause**—Record the cause and date of any tank or SI failure which has resulted in a loss of tank or SI contents.

4. Using the numbers from the tank and SI forms, label a schematic drawing of the facility. This drawing should be identical to any schematic drawings included in the SPCC Plan.

5. Using knowledge of the facility and its operations, describe the following in writing:

A. The loading and unloading of transportation vehicles that risk the release of oil or hazardous substances during transport processes. These operations may include loading and unloading of trucks, railroad cars, or vessels. The volume of material involved in transfer operations should be estimated.

B. Day to day operations that may present a risk of releasing oil or a hazardous substance. These activities include scheduled venting, piping repair or replacement, valve maintenance, transfer of tank contents from one tank to another, etc. (not including transportation-related activities). The volume of material involved in these operations should be estimated.

C. The secondary containment volume associated with each tank and/or transfer point at the facility. The numbering scheme developed on the tables should be used to identify each containment area. Capacities should be listed for each individual unit (tanks, slumps, drainage traps, and ponds), as well as the facility total.

D. Normal daily throughput for the facility and any effect on potential release volumes that a negative or positive change in that throughput may cause.

Date of last update: _____

HAZARD IDENTIFICATION TANKS*

Tank no.	Substance stored (oil & hazardous substance)	Quantity stored (gallons)	Tank type/year	Maximum capacity (gal)	Failure/cause

* (Tank=any container that stores oil).

Attach as many sheets as necessary.

Date of last update: _____

HAZARD IDENTIFICATION SURFACE IMPOUNDMENTS (SI)

SI No.	Substance stored	Quantity stored (gal)	Surface area/year	Maximum capacity (gal)	Failure/cause

Attach as many sheets as necessary.

1.4.2 Vulnerability Analysis

The vulnerability analysis should address the potential effects (i.e., to human health, property, or the environment) of a spill. Attachment C-III to appendix C of this part provides a method that owners or operators could use to determine appropriate distances from the facility to environmentally sensitive areas and drinking water intakes. Owners and operators could use an alternative formula that is considered acceptable by the RA. If an alternative formula is used, documentation of the reliability and analytical soundness of the formula must be attached to the response plan cover sheet. This analysis should be prepared for each facility, and should include discussion of the vulnerability of:

1. Water intakes (drinking, cooling, or other);
2. Schools;
3. Medical facilities;
4. Residential areas;
5. Businesses;
6. Wetlands or other environmentally sensitive areas;²
7. Fish and wildlife;
8. Lakes and streams;
9. Endangered flora and fauna;
10. Recreational areas;
11. Transportation routes (air, land, and water);
12. Utilities; and
13. Other areas of economic importance including terrestrially sensitive

² Refer to Appendix D of the proposed rule for the listing of environmentally sensitive areas.

environments, aquatic environments, and unique habitats.

1.4.3 Analysis of the Potential for a Spill

Each owner or operator should analyze the probability of a spill occurring at the facility. This analysis should be quantitative, incorporating factors such as tank age, spill history, horizontal range of a potential spill, and vulnerability to natural disaster. This analysis will provide information for developing discharge scenarios for a worst case discharge and small and medium discharges and aid in the development of techniques to reduce the size and frequency of spills. The owner or operator may need to research the age of the tanks and the spill history at the facility.

1.4.4 Spill History

Briefly describe the facility's reportable spill³ history for the entire life of the facility, including:

1. Date of discharge(s);
2. List of discharge causes;
3. Material(s) discharged;
4. Amount discharged in gallons;
5. Amount of discharge that reached navigable waters, if applicable;
6. Effectiveness and capacity of secondary containment;
7. Clean-up actions taken;
8. Steps taken to reduce possibility of recurrence;
9. Total storage capacity of the tank(s) or impoundment(s) from which the material discharged;
10. Enforcement actions;
11. Effectiveness of monitoring equipment; and
12. Description of how each spill was detected.

The information solicited in this section may be similar to requirements in § 112.4(a) of the October 22, 1991 proposed revisions to the Oil Pollution Prevention rule (56 FR 54612). Any duplicate information in § 112.4(a) may be photocopied and inserted.

1.5 Discharge Scenarios

In this section, the owner or operator is asked to provide a description of the facility's worst case discharge, as well as a small and medium spill, as appropriate. A tiered planning approach has been chosen because the response actions to a spill (i.e., necessary equipment, products, and personnel) are dependent on the magnitude of the spill. Planning for lesser discharges is necessary because the nature of the response may be qualitatively different depending on the quantity of the discharge. In this discussion, the owner or operator should discuss the potential direction of the spill pathway.

1.5.1 Small and Medium Discharge

To address tiered planning requirements, the owner or operator must consider types of facility-specific spill scenarios that may

contribute to a small or medium spill. The scenarios should account for all the operations that take place at the facility, including but not limited to:

1. Loading and unloading of surface transportation;
2. Facility maintenance;
3. Facility piping;
4. Pumping stations and slumps;
5. Storage tanks;
6. Vehicle refueling; and
7. Age and condition of facility and components.

The scenarios should also consider factors that affect the response efforts required by the facility. These include but are not limited to:

1. Size of the spill;
2. Proximity to downgradient wells, waterways, and drinking water intakes;
3. Proximity to environmentally sensitive areas;
4. Likelihood that the discharge will travel offsite (i.e., topography, drainage);
5. Location of the material spilled (on a concrete pad or directly on the soil);
6. Material discharged;
7. Weather or aquatic conditions (i.e., river flow);
8. Available remediation equipment;
9. Probability of a chain reaction of failures; and
10. Direction of spill pathway.

1.5.2 Worst Case Discharge

In this section, the owner or operator must identify the worst case discharge volume at the facility. Worksheets for production and non-production facility owners and operators to use when calculating worst case discharge are presented in Appendix E to 40 CFR part 112. When planning for the worst case discharge response, all of the aforementioned factors listed in the small and medium discharge section of the response plan should be addressed. Depending on the adequacy of secondary containment and the proximity to navigable waters, the worst case discharge may be: (1) The total aboveground oil storage capacity (plus production capacity if applicable) for facilities without adequate secondary containment; (2) the capacity of the largest single tank within a common secondary containment area or the combined capacity of a group of aboveground tanks permanently manifolded together within a common secondary containment area, whichever is greater, plus an additional quantity for any tanks without secondary containment (plus production volume if applicable); (3) 110% of the capacity of the largest single tank within a secondary containment area or 110% of the combined capacity of a group of tanks within a common secondary containment area, whichever is greater (plus production volume if applicable); or (4) a combination of the above.

For onshore storage facilities and production facilities, permanently manifolded tanks are defined as tanks that are designed, installed, and/or operated in such a manner that the multiple tanks function as one storage unit. In this section of the response plan, owners and operators must provide evidence that tanks with

common piping or piping systems are not operated as one unit. If such evidence is provided and is acceptable to the RA, the worst case discharge volume would be based on the combined storage capacity of all manifold tanks or the capacity of the largest single tank within the secondary containment area, whichever is greater. For permanently manifolded tanks that function as one storage unit, the worst case discharge would be based on the combined storage capacity of all manifolded tanks or the capacity of the largest single tank within a secondary containment area, whichever is greater. For purposes of the worst case discharge calculation, permanently manifolded tanks that are separated by internal divisions for each tank are considered to be single tanks and individual manifolded tank volumes are not combined.

1.6 Discharge Detection Systems

In this section, the owner or operator should provide a detailed description of the procedures and equipment used to detect discharges. A section on spill detection by personnel and a discussion of automated spill detection, if applicable, should be included for both during regular operations and after hours. In addition, the owner or operator should discuss how the reliability of any automated system will be checked and how frequently the system will be inspected.

1.6.1 Discharge Detection by Personnel

In this section, owners and operators should describe the procedures and personnel that will detect any spill or uncontrolled release of oil or hazardous material. A thorough discussion of facility inspections should be included. In addition, a description of initial response actions should be addressed. See section 1.3.1 of the response plan for emergency response information.

1.6.2 Automated Discharge Detection

In this section, facility owners and operators must describe any automated spill detection equipment that the facility has in place. This section should include a discussion of overflow alarms, secondary containment sensors, etc. A discussion of the plans to verify an automated alarm and the actions to be taken once verified must also be included.

1.7 Plan Implementation

In this section, facility owners and operators must explain in detail how to implement the facility's emergency response plan by describing response actions to be carried out under the plan to ensure the safety of the facility and to mitigate or prevent discharges described in section 1.5. This section includes the identification of response resources for small, medium, and worst case spills; disposal plans; and containment and drainage planning. A distinct list of those personnel who would be involved in the cleanup should be identified. Procedures that the facility will use, where appropriate or necessary, to update their plan after a spill event and the time frame to update the plan must be described.

³ As described in 40 CFR part 110, reportable spills are those that: (a) Violate applicable water quality standards, or (b) cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

[illegible]

determined by the Office of Management and Budget.

Worst Case Discharge Amount: Using information from the worksheets in appendix E, enter the amount of the worst case discharge in GALLONS.

Page Three—Determination of Substantial Harm

Using the flowchart provided in Attachment C-1 of appendix C, blacken the appropriate circle to each question. Explanations to referenced terms can be

found in appendix C. If an alternative formula to the ones described in Attachment C-III is used to calculate the planning distance, documentation of the reliability and analytical soundness of the formula must be attached to the response plan cover sheet.

Additional Information

Latitude and Longitude: Enter the facility latitude and longitude in degrees, minutes, and seconds.

Facility Distance to Navigable Waters: Enter the nearest distance between an

opportunity for discharge (i.e., storage tank, piping, or flowline) and a navigable water.

Certification

Complete this block after all other questions have been answered.

BILLING CODE 6540-50-0

FORM APPROVED
OMB NO. XXXXX
APPROVAL EXPIRES [DATE]

This form is intended to be computer readable. To complete this form, entirely fill in the desired circle with black or blue ink. Please do not fold, staple, or mutilate this form. Return this form in a 9" x 12" envelope. Please print requested information in BOXES for each individual question.

●

☐ ☐ ☐ ☒ ☐

	NAME		
	E	P	A
○	○	○	○
(A)	(A)	(A)	(B)
G	G	G	C
D	D	F	D
V	V	H	N
I	I	L	L
K	K	Z	R
L	L	O	O
M	M	S	P
N	N	R	X
O	O	T	C
P	P	V	V
Q	Q	W	W
R	R	X	X
S	S	Z	Z
T	T		
U	U		
V	V		
W	W		
X	X		
Y	Y		
Z	Z		

[illegible][illegible]

**This form is designed to
accompany a submitted
Response Plan.**

Explanations and detailed instructions can be found in Appendix G.

Facility information contained here will be returned with the Response Plan.

[illegible][illegible]

NUMBER OF TANKS			
0	0	0	
1	1	1	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	
7	7	7	
8	8	8	
9	9	9	

Public reporting burden for the collection of this information is estimated to vary from one hour to 270 hours per response in the first year, with an average of 5 hours per response. The estimate includes time for reviewing instructions, searching existing data sources, gathering the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate of this information, including suggestions for reducing this burden to : Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

- **REMEMBER**

**USE BLACK OR BLUE INK
DO NOT FOLD, STAPLE, OR MUTILATE THIS FORM**

[illegible][illegible]

STATE	
○	○
A	A
B	B
C	C
D	D
E	E
F	F
G	G
H	H
I	I
J	J
K	K
L	L
M	M
N	N
O	O
P	P
Q	Q
R	R
S	S
T	T
U	U
V	V
W	W
X	X
Y	Y
Z	Z

U.S. ZIP CODE									
0	0	0	0	0	-	0	0	0	0
1	1	1	1	1		1	1	1	1
2	2	2	2	2		2	2	2	2
3	3	3	3	3		3	3	3	3
4	4	4	4	4		4	4	4	4
5	5	5	5	5		5	5	5	5
6	6	6	6	6		6	6	6	6
7	7	7	7	7		7	7	7	7
8	8	8	8	8		8	8	8	8
9	9	9	9	9		9	9	9	9

FACILITY PHONE NUMBER													
area code													
0	0	0	0	0	0								
1	1	1	1	1	1								
2	2	2	2	2	2								
3	3	3	3	3	3								
4	4	4	4	4	4								
5	5	5	5	5	5								
6	6	6	6	6	6								
7	7	7	7	7	7								
8	8	8	8	8	8								
9	9	9	9	9	9								

DUN & BRADSTREET NUMBER							
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9

STANDARD INDUSTRIAL CLASSIFICATION (SIC)				
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

[illegible]

DETERMINATION OF SUBSTANTIAL HARM

Does the facility operation include over-water transfers* of oil to or from vessels and does the facility have a maximum capacity greater than or equal to 42,000 gallons?

☐ yes ☐ no

Does the facility lack adequate secondary containment* for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground storage tank within that storage area and is the total storage capacity greater than or equal to one million gallons?

☐ yes ☐ no

Is the facility located at a distance* that would shut down a public drinking water intake and is the total storage capacity greater than or equal to one million gallons?

☐ yes ☐ no

Is the facility located at a distance* that could cause injury to an environmentally sensitive area as referenced in Appendix D and is the total storage capacity greater than or equal to one million gallons?

☐ yes ☐ no

Within the past five years, has the facility experienced a reportable spill* exceeding 10,000 gallons and is the total storage capacity greater than or equal to one million gallons?

☐ yes ☐ no

* Explanations of the above referenced terms can be found in Appendix C. If an alternative formula to the ones contained in Attachment C-III is used to establish the appropriate distance to sensitive environments or drinking water intakes, documentation of the reliability and analytical soundness of the formula must be attached to this form.

ADDITIONAL INFORMATION

LATITUDE (DEGREES: NORTH)			
degrees	min.	sec.	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

LONGITUDE (DEGREES: WEST)			
degrees	min.	sec.	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

FACILITY DISTANCE TO NAVIGABLE WATER:

Fill the appropriate circle.

0 - 1/4 mile ☐

1/4 - 1/2 mile ☐

1/2 - 1 mile ☐

> 1 mile ☐

● REMEMBER

USE BLUE OR BLACK INK

DO NOT FOLD, STAPLE, OR MUTILATE THIS FORM

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate, and complete.

Signature

Name (please type or print)

Title

Date

3.0 Definitions

Navigable Waters: Navigable waters include all waters that are used in interstate or foreign commerce, all interstate waters including wetlands, and all intrastate waters (e.g., lakes, rivers, streams, intermittent streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds).

Oil: Oil in any kind or in any form, including, but not limited to petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil.

Production Facility: Onshore oil production facilities may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

Worst Case Discharge: See section 112.2(m). Worksheets to calculate worst case discharge volume are included in appendix E.

Environmentally Sensitive Areas: See appendix D.

Wellhead Protection Area: The surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield.

4.0 Acronyms

ACP: Area Contingency Plan

CHRIS: Chemical Hazards Response Information System

CWA: Clean Water Act

DOT: Department of Transportation

EPA: Environmental Protection Agency

FEMA: Federal Emergency Management Agency

gal: Gallons

HAZMAT: Hazardous Materials

LEPC: Local Emergency Planning Committee

NCP: National Oil and Hazardous Substances

Pollution Contingency Plan

NRC: National Response Center

NRT: National Response Team

OPA: Oil Pollution Act of 1990

OSC: On-Scene Coordinator

RA: Regional Administrator

RCRA: Resource Conservation and Recovery Act

RRT: Regional Response Team

SARA: Superfund Amendments and Reauthorization Act

SERC: State Emergency Response Commission

SDWA: Safe Drinking Water Act of 1986

SI: Surface Impoundment

SIC: Standard Industry Codes

SPCC: Spill Prevention, Control and Countermeasures

USCG: United States Coast Guard

5.0 References

Concawe. 1982. *Methodologies for Hazard Analysis and Risk Assessment in the Petroleum Refining and Storage Industry*. Prepared by Concawe's Risk Assessment Ad-hoc Group.

U.S. Department of Housing and Urban Development. 1987. *Siting of HUD-Assisted Projects Near Hazardous Facilities: Acceptable Separation Distances from Explosive and Flammable Hazards*. Prepared by the Office of Environment and Energy, Environmental Planning Division, Department of Housing and Urban Development. Washington, DC.

U.S. DOT, FEMA and U.S. EPA. Handbook of Chemical Hazard Analysis Procedures.

U.S. DOT, FEMA and U.S. EPA. *Technical Guidance for Hazards Analysis: Emergency Planning for Extremely Hazardous Substances*.

The National Response Team. 1987. *Hazardous Materials Emergency Planning Guide*. Washington, DC.

The National Response Team. 1990. *Oil Spill Contingency Planning, National Status: A Report to the President*. Washington, DC. U.S. Government Printing Office.

Offshore Inspection and Enforcement Division. 1988. *Minerals Management Service, Offshore Inspection Program: National Potential Incident of Noncompliance (PINC) List*. Reston, VA.

[FR Doc. 93-3396 Filed 2-16-93; 8:45 am]

BILLING CODE 6820-50-P

Federal Register

**Friday
April 9, 1993**

Part VII

Environmental Protection Agency

40 CFR Part 112

**Oil Pollution Prevention; Correction;
Proposed Rule**

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Part 112**

(SW H-FRL 4612-7)

RIN 2050-AD 30

Oil Pollution Prevention; Non-Transportation-Related Onshore Facilities; Correction

AGENCY: U.S. Environmental Protection Agency (EPA).

ACTION: Proposed rule; corrections.

SUMMARY: To ensure consistency with the regulatory text, EPA is correcting errors in the technical appendices to the proposed rule for facility response plans required by the Oil Pollution Act (OPA) of 1990, which appeared in the *Federal Register* on February 17, 1993.

DATES: Comments on the February 17, 1993, proposed rule (58 FR 8824), as corrected by this notice, must be submitted on or before April 19, 1993.

FOR FURTHER INFORMATION CONTACT: Bobbie Lively-Diebold, Response Standards and Criteria Branch, Emergency Response Division (5202G), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 at 703-356-8774; the ERNS/SPCC Information line at 202-260-2342; or the RCRA/Superfund Hotline at 800-424-9346 (in the Washington, DC metropolitan area, 703-920-9810). The Telecommunications Device for the Deaf (TDD) Hotline number is 800-553-7672 (in the Washington, DC metropolitan area, 703-486-3323).

SUPPLEMENTARY INFORMATION:**Background**

EPA published a proposed rule in the *Federal Register* on February 17, 1993

(58 FR 8824), that would revise the Oil Pollution Prevention regulation, 40 CFR part 112, originally promulgated under the authority of section 311(j) of the Clean Water Act. The proposed revision would incorporate new requirements added by section 4202(a) of the OPA, Public Law 101-380, 104 Stat. 484, subtitle B that directs facility owners and operators to prepare plans for responding to a worst case discharge of oil and to a substantial threat of such a discharge. The proposed rule would affect owners and operators of non-transportation-related onshore facilities.

Need for Correction

The proposed rule contained minor errors that may be misleading and should be corrected. In addition, although referenced in the preamble and regulatory text and available in the public docket, appendix H was inadvertently omitted from the proposed rule.

Correction of Publication

Accordingly, the proposed rule is corrected as follows:

1. On page 8851, in the first column, Amendment 7 which reads, "7. Part 112, as proposed to be revised at 56 FR 54630, is amended by adding appendices C through G to read as follows:" is corrected to read as follows: "7. Part 112, as proposed to be revised at 56 FR 54630, is amended by adding appendices C through H to read as follows:"

2. On page 8851, in the second column, in the first full paragraph under section 2.1, the text which reads, "(1) *Transportation-Related Facilities Greater Than or Equal to 42,000 Gallons Where Operations Include Over-Water Transfer of Oil*—A transportation-related facility with a total storage

capacity greater than 42,000 gallons that transfers oil over water to or from vessels must submit a response plan to EPA." is corrected to read as follows:

"(1) *Facilities Greater Than or Equal to 42,000 Gallons Where Operations Include Over-Water Transfers of Oil*—A facility with a total storage capacity greater than 42,000 gallons that transfers oil over water to or from vessels must submit a response plan to EPA."

3. On page 8851, in the second column, in the second full paragraph under section 2.1, in line 8, "each" is corrected to read "any".

4. On page 8852, within the second box down on the right side of the page that contains the substantial harm criterion for secondary containment, "each" is corrected to read "any".

5. On page 8853, in the first column, in paragraph number "2", in line 5, "each" is corrected to read "any".

6. On page 8854, in the second column, in Table 2, under item (1), "State Department of Naval Resources" is corrected to read "State Department of Natural Resources".

7. On page 8858, in the second column, in Attachment D-I, the entry in the first column "Areas" which reads "Habitat used by designated or proposed endangered/threatened species or marine mammals defined as depleted" is corrected to read "Habitat used by designated or proposed endangered/threatened species or marine mammals".

8. On page 8878, within the second question on the left side of the page that addresses the substantial harm criterion for secondary containment, "each" is corrected to read "any".

9. On page 8879, following appendix G, appendix H is added as follows:

BILLING CODE 6560-60-M

Authority: 33 U.S.C. 1321 and 1361; E.O.
12777 (3 CFR, 1991 Comp., p. 351).

Dated: March 31, 1993.

Walter W. Kovalick, Jr.,

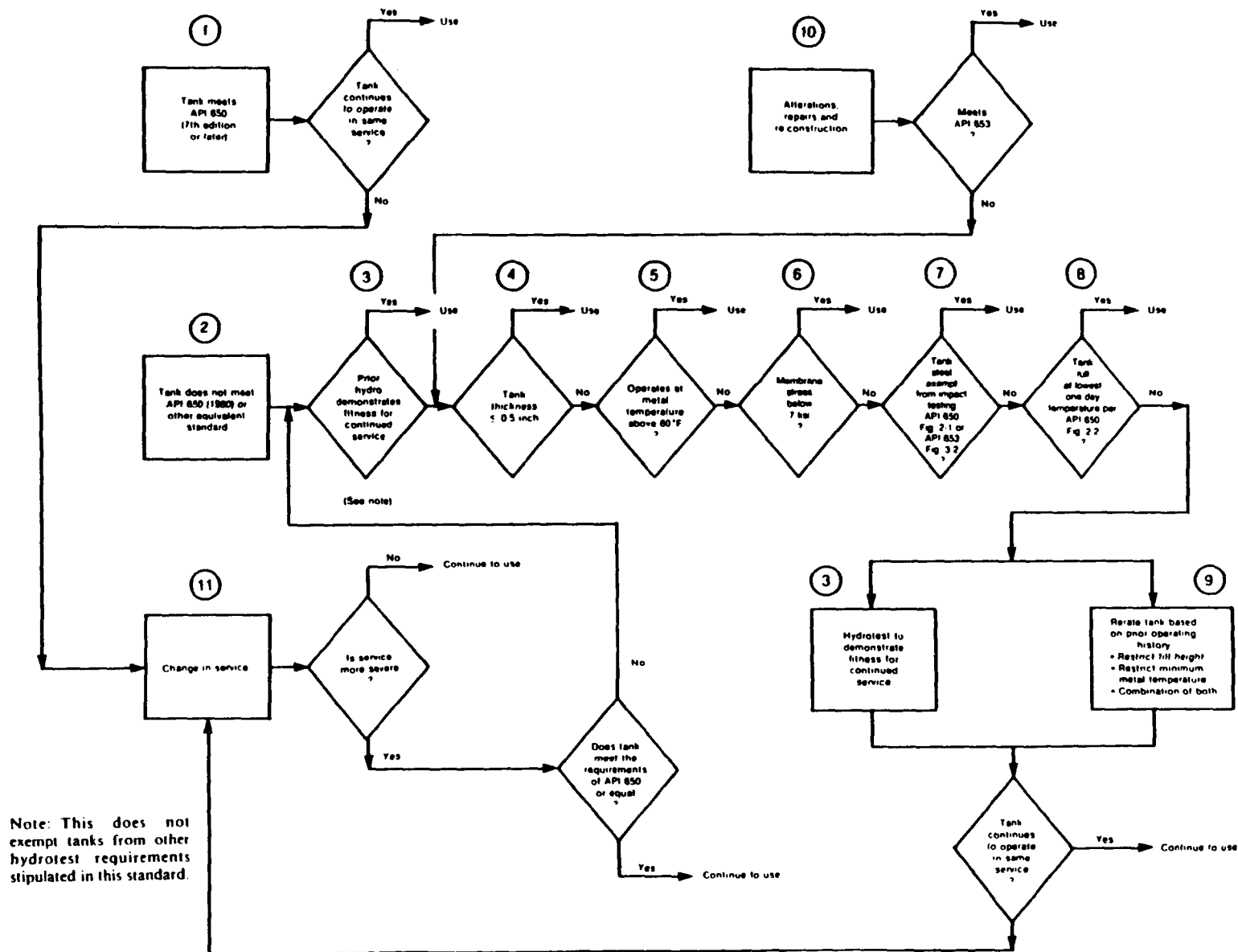
Acting Assistant Administrator.

[FR Doc. 93-8393 Filed 4-8-93; 8:45 am]

BILLING CODE 6560-50-P

APPENDIX H TO PART 112 --

BRITTLE FRACTURE CONSIDERATIONS IN API STANDARD 653



federal register

**Wednesday
November 4, 1992**

Part V

Environmental Protection Agency

40 CFR Part 112, et al.

**Civil Penalty Provisions for the Oil
Pollution Prevention Regulations, Clean
Water Act Notification Provision and
Prohibition Against Unauthorized
Discharges of Oil and Hazardous
Substances; Interim Final Rule**

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Parts 112, 114 and 117**

(FRL-4529-4)

Civil Penalty Provisions for the Oil Pollution Prevention Regulations, Clean Water Act Notification Provision and Prohibition Against Unauthorized Discharges of Oil and Hazardous Substances**AGENCY:** Environmental Protection Agency.**ACTION:** Interim final rule.

SUMMARY: The Environmental Protection Agency (EPA) today publishes an interim final rule which limits the applicability of the administrative penalty assessment provisions of the Agency's regulations on oil pollution prevention and reportable quantities for hazardous substances. These provisions are being amended in light of new authorities for the assessment of civil administrative and judicial penalties under the Oil Pollution Act (OPA).

DATE: Effective date: The interim final rule shall be effective November 4, 1992. **Comments:** EPA will accept post-publication comments until December 4, 1992.

ADDRESSES: Persons may mail two copies of all comments on this interim final rule to Cecilia L. Smith, Office of Waste Programs Enforcement, (OS-510), Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. The administrative record of this rulemaking is available and persons may inspect comments at the above address.

FOR FURTHER INFORMATION CONTACT: Cecilia L. Smith, Office of Waste Programs Enforcement, 5502C, Environmental Protection Agency, 401 M Street SW., Washington, DC 20460, (703) 603-8943.

SUPPLEMENTARY INFORMATION:**I. Preamble****Oil Pollution Prevention Regulations**

The civil penalty provision of the oil pollution prevention regulations (40 CFR 112.6), and the related civil penalty provisions and procedures at 40 CFR part 114 were promulgated in 1974 pursuant to section 311(j) of the Federal Water Pollution Control Act, 33 U.S.C. 1321, also known as the Clean Water Act (CWA) (39 FR 31602, August 29, 1974). Part 112 sets out, for onshore and offshore non-transportation-related facilities, requirements designed to prevent discharges of oil into "navigable waters and adjoining shorelines." 40

CFR 112.6 and 114.1 each provide that violations of the oil pollution prevention regulations may result in the assessment of an administrative penalty of not more than \$5,000 per day of violation. 40 CFR 112.6 and 114.1 are based on authority in CWA section 311(j)(2), which, before its amendment by the Oil Pollution Act of 1990 (OPA), limited civil penalties assessed for violations of regulations issued under section 311(j) to "not more than \$5,000 for each such violation."

The OPA repealed CWA section 311(j)(2) and amended CWA section 311(b)(6) to provide that violators of CWA section 311(j) may be assessed a Class I penalty of up to \$10,000 per violation (up to a maximum assessment of \$25,000), or a Class II penalty of up to \$10,000 per day of violation (up to a maximum assessment of \$125,000). Further, section 311(b)(6) now provides for different administrative proceedings for these two classes of penalties. Respondents in Class I cases are given a reasonable opportunity to be heard and to present evidence, but the hearing need not meet the requirements of the Administrative Procedure Act (APA) for formal adjudications (5 U.S.C. 554). Class II hearings, however, are on the record and subject to 5 U.S.C. 554.

As a result of the savings provision in section 6001 of the OPA, §§ 112.6 and 114.1 continue in effect until repealed, amended or superseded. Today's regulation amends 40 CFR 112.6 and 114.1 by making them applicable only to violations occurring prior to August 18, 1990, the date of enactment of the Oil Pollution Act.

The OPA also amended CWA section 311(b) to provide for the judicial assessment of civil penalties of up to "\$25,000 per day of violation."

Notification of Discharge(s)

40 CFR 117 generally establishes the reportable quantities for hazardous substances designated under 40 CFR 116 for purposes of CWA section 311. 40 CFR 117.21 sets out the notification requirement for discharges of designated hazardous substances pursuant to CWA section 311(b)(5). 40 CFR 117.22(a) provides that violation(s) of the notification requirement may result in a fine of not more than \$10,000 or imprisonment for not more than one year, or both. 40 CFR 117.22(a) is based on language in former CWA section 311(b)(5), which was later amended by the OPA. Section 4301 of the OPA amended CWA section 311(b)(5) to provide that any criminal penalty for violation of the notification requirement in CWA section 311(b)(5) be "in accordance with title 18, United States Code, or imprisoned for not more than 5

years, or both." As a result of the savings provision in section 6001 of the OPA, 40 CFR 117.22(a) continues in effect until repealed, amended or superseded. Today's regulation amends § 117.22(a) by making it applicable only to violations occurring prior to August 18, 1990, the date of enactment of the Oil Pollution Act.

Prohibition Against Unauthorized Discharges

40 CFR 117.22(b) provides that an owner, operator or a person in charge of a vessel or facility that has discharged a designated hazardous substance exceeding the reportable quantity may be subject to a civil administrative penalty assessment of up to \$5,000 per violation. The regulation also states that the Agency may pursue a judicial civil penalty action, seeking up to \$50,000 per violation; where the discharge resulted from willful negligence or willful misconduct, the maximum judicial civil penalty is \$250,000. 40 CFR 117.22(b) is based on language in former CWA section 311(b)(3)(A), which was amended by the OPA.

Section 4301 of OPA repealed CWA section 311(b)(6) and replaced it with a new penalty assessment framework. CWA section 311(b)(6) now provides that violators of the prohibition against unauthorized discharges in section 311(b)(3) may be assessed a Class I penalty of up to \$10,000 per violation (up to a maximum assessment of \$25,000) or a Class II penalty of up to \$10,000 per day of violation (up to a maximum assessment of \$125,000).

As a result of the savings provision in section 6001 of the OPA, 40 CFR 117.22 continues in effect until repealed, amended or superseded. Today's regulation amends 40 CFR 117.22 by making it applicable only to violations occurring prior to August 18, 1990, the date of enactment of the Oil Pollution Act.

Section 4301 of OPA also added CWA section 311(b)(7), which provides for the judicial assessment of civil penalties for violations of CWA section 311(b)(3) of up to "\$25,000 per day of violation" or up to "\$1,000 per barrel of oil or unit of reportable quantity of hazardous substances." For violations of section 311(b)(3) that are a result of gross negligence or willful misconduct, the violator now is subject to a civil penalty of "not less than \$100,000 and not more than \$3,000 per barrel of oil or unit of reportable quantity or hazardous substance discharged."

Today's Interim Final Regulation

Congress clearly intended that violations of the oil pollution prevention regulations, violations of the section 311(b)(5) notification requirement, and violations of the prohibition against unauthorized discharges in section 311(b)(3), occurring after the OPA's passage should be subject to a more rigorous penalty framework than previously was the case. Furthermore, the OPA establishes procedures that differ from those set forth in 40 CFR parts 112, 114 and 117 has always been to allow civil penalty assessments up to the maximum amount allowed under the statute. In light of the recent statutory change to the maximum amount of civil penalties provided for violations of CWA section 311(j) regulations, CWA section 311(b)(3) and CWA section 311(b)(3), the Agency's existing regulations on this matter need to be changed to conform to the statutory amendments. The Agency believes that such a conforming change reflecting explicit Congressional intent does not warrant notice and opportunity for comment under the Administrative Procedure Act, and that there is good cause for publishing this rule in interim final form. For the same reason, the Agency believes there is good cause for making the rule effective immediately. Consequently, this rule is published as an interim final rule amending 40 CFR 112.6, 114.1 and 117.22 with regard to any violations occurring after the date of the OPA's enactment (August 18, 1990). 40 CFR 112.6, 114.1 and 117.22 still apply, however, to violations that occurred prior to August 18, 1990.

Interim Procedures

As a result of today's interim final rule, there will be no promulgated rules containing procedures for assessing administrative penalties for CWA Section 311 regulatory violations or violations of section 311(b)(3) occurring after August 18, 1990. The Agency, however, will use two existing sets of procedures as guidance until it completes a rulemaking to implement the new CWA penalty provisions. For Class I penalties, the Agency will follow generally the procedures set forth in the recently proposed 40 CFR 28. Non-APA Consolidated Rules of Practice for Administrative Assessment of Civil Penalties (56 FR 29996, July 1, 1991). These procedures will be used as guidance until the regulation is published in the Federal Register as final, at which time they will have the force of law. For the assessment of CWA section 311 Class II penalties, the

Agency intends to use as guidance the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation or Suspension of Permits at 40 CFR 22. 40 CFR 22 satisfies the requirements of the APA for adjudicatory hearings on the record. The Agency intends in the near future to amend 40 CFR 22 to incorporate the OPA Amendments to the CWA.

II. Procedural Requirements**A. Review Under Executive Order 12291**

Executive Order No. 12291 requires that all Proposed and final regulations be classified as major or non-major rules. The Agency has determined that this final rule is not a major rule under Executive Order 12291 because it will not result in any of the impacts delineated in the Executive Order.

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601 *et seq.* requires that a Regulatory Flexibility Analysis be performed for all rules that are likely to have "significant economic impact on a substantial number of small entities." This regulation will not impose significant costs on any small entities. The overall impact on small entities is expected to be slight. In addition, the rule is procedural and does not impose additional regulatory requirements on small entities. Therefore, as required by the Regulatory Flexibility Act, EPA hereby certifies that this final rule will not have a significant impact on small entities.

C. Review Under the Paperwork Reduction Act

This rule does not contain any information collection requirements subject to OMB review under the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*).

III. Additional Opportunity for Public Comment

EPA has issued today's rule as an interim final rule in order to provide a limited opportunity until December 4, 1992 for public comment. After evaluating any comments which are received, EPA will decide whether a response is warranted.

List of Subjects**40 CFR Part 112**

Oil pollution. Penalties. Reporting and recordkeeping requirements.

40 CFR Part 114

Administrative practice and procedure. Oil pollution. Penalties.

40 CFR Part 117

Hazardous substances. Penalties. Reporting and recordkeeping requirements. Water pollution control.

Dated: October 28, 1992.

William K. Ratty,

Administrator

For the reasons set out in the preamble, parts 112, 114 and 117 of chapter I of title 40 of the Code of Federal Regulations, are amended as set forth below.

PART 112—OIL POLLUTION PREVENTION

1. The authority citation for part 112 is revised to read as follows:

Authority: Sec. 311, 501(a), Federal Water Pollution Control Act (sec. 2, Pub. L. 92-500, 86 Stat. 833 *et seq.* (33 U.S.C. 1251 *et seq.*)); sec. 4(b), Pub. L. 92-500, 86 Stat. 837; 5 U.S.C. Reorg. Plan of 1970 No. 3 (1970), 35 FR 15823, 2 CFR 1984-1970 Comp.; E.O. 11735, 38 FR 21243, 3 CFR, superseded by E.O. 12777, 56 FR 54757.

2. Section 112.6 is revised to read as follows:

§ 112.6 Civil penalties for violation of oil pollution prevention regulations.

(a) Applicability of section. This section shall apply to violations specified in paragraph (b) of this section which occurred prior to August 18, 1990.

(b) Owners or operators of facilities subject to § 112.3 (a), (b) or (c) who violate the requirements of this part 112 by failing or refusing to comply with any of the provisions of § 112.3, § 112.4 or § 112.5 shall be liable for a civil penalty of not more than \$5,000 for each day such violation continues. Civil penalties shall be imposed in accordance with procedures set out in part 114 of this subchapter D.

PART 114—CIVIL PENALTIES FOR VIOLATION OF OIL POLLUTION PREVENTION REGULATIONS

1. The authority citation for part 114 is revised to read as follows:

Authority: Secs. 311, 501(a), Pub. L. 92-500, 86 Stat. 833, 835 (33 U.S.C. 1321, 1361(a)).

2. Section 114.1 is revised to read as follows:

§ 114.1 General applicability.

(a) Applicability of section. This section shall apply to violations specified in paragraph (b) of this section which occurred prior to August 18, 1990.

(b) Owners or operators of facilities subject to § 112.3 (a), (b) or (c) of this subchapter who violate the requirements of part 112 of this subchapter D by failing or refusing to comply with any of the provisions of §§ 112.3, 112.4, or 112.5 of this subchapter shall be liable for a civil penalty of not more than \$5,000 for each day such violation continues. Civil penalties shall be assessed and compromised in accordance with this part. No penalty shall be assessed until the owner or operator shall have been given notice and an opportunity for hearing in accordance with this part.

PART 117—DETERMINATION OF REPORTABLE QUANTITIES FOR HAZARDOUS SUBSTANCES

1. The authority citation for part 117 is revised to read as follows:

Authority: Secs. 311 and 301(a), Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), ("the Act") and Executive Order 11735, superseded by Executive Order 12777, 56 FR 54757.

2. Section 117.22 is revised to read as follows:

§ 117.22 Penalties.

(a) Applicability of section. This section shall apply to violations specified in paragraphs (b) and (c) of this section which occurred prior to August 18, 1990.

(b) Any person in charge of a vessel or an onshore or offshore facility who fails to notify the United States Government of a prohibited discharge pursuant to § 117.21 (except in the case of a discharge beyond the contiguous zone, where the person in charge of a vessel is not otherwise subject to the jurisdiction of the United States) shall be subject to a fine of not more than \$10,000 or imprisonment for not more than one year, or both, pursuant to section 311(b)(5).

(c) The owner, operator or person in charge of a vessel or an onshore or offshore facility from which is discharged a hazardous substance designated in 40 CFR part 118 in a quantity equal to or exceeding in any 24-hour period, the reportable quantity established in this part (except in the case of a discharge beyond the contiguous zone, where the person in charge of a vessel is not otherwise subject to the jurisdiction of the United States, shall be assessed a civil penalty

of up to \$5,000 per violation under section 311(b)(6)(A). Alternatively, upon a determination by the Administrator, a civil action will be commenced under section 311(b)(6)(B) to impose a penalty not to exceed \$50,000 unless such discharge is the result of willful negligence or willful misconduct within the privity and knowledge of the owner, operator, or person in charge, in which case the penalty shall not exceed \$250,000.


Note: The Administrator will take into account the gravity of the offense and the standard of care manifest by the owner, operator, or person in charge in determining whether a civil action will be commenced under section 311(b)(6)(B). The gravity of the offense will be interpreted to include the size of the discharge, the degree of danger or harm to the public health, safety, or the environment, including consideration of toxicity, degradability, and dispersal characteristics of the substance, previous spill history, and previous violation of any spill prevention regulations. Particular emphasis will be placed on the standard of care and the extent of mitigation efforts manifest by the owner, operator, or person in charge.

[FR Doc. 92-28661 Filed 11-3-92; 8:45 am]

MAILING CODE 0000-00-00

SPCC OUTREACH: SPILL PREVENTION CONTROL AND COUNTERMEASURE

WHO CAN YOU CALL?

SPCC/OPA Hotline	202-260-2342	
National Response Center	800-484-8802	
U.S. EPA Region III	800-392-1973 (+Extension) or 215-59 (+Extension)	

Region III SPCC Personnel, Their Title and Phone Extension:

Dave Wright, Chief, Oil and Title III Section--75998

Vince Zenone, OSC/SPCC Coordinator--~~73138~~ 7 3 0 3 8

Linda Ziegler, Oil Program Coordinator
and FRP Coordinator--71395

Regina Starkey, Oil Enforcement Coordinator
and FRP Co-Lead Coordinator--71395

Paula Curtin, Oil Enforcement Specialist--304-234-0256

Bernie Stepanski, Investigator--73152

Frank Cosgrove, Oil Inspector--71357

SPCC

COMMONLY USED CWA-OPA-SPCC ACRONYMS

ACP	Area Contingency Plan
AST	Aboveground Storage Tank
CERCLA	Comprehensive Environmental Response, Compensation, & Liability Act of 1980
CWA	Clean Water Act
DOJ	Department of Justice
DOT	Department of Transportation
EPA	United States Environmental Protection Agency
ERNS	Emergency Response Notification System
FRP	Facility Response Plan
MOU	Memorandum of Understanding
NCP	National Contingency Plan
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
NRT	National Response Team
OPA	Oil Pollution Act
PE	Professional Engineer
RA	Regional Administrator

RCP	Regional Contingency Plan
RCRA	Resource Conservation & Recovery Act
RQ	Reportable Quantity
SIC	Standard Industrial Classification (Code)
SPCC	Spill Prevention Control and Countermeasure (Plan)
USCG	United States Coast Guard
UST	Underground Storage Tank
WHPA	Wellhead Protection Area

Important SPCC Definitions

Oil is defined as "oil of any kind or in any form, including but not limited to petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredge spoil." Interpretations of this definition include non-petroleum oils such as vegetable and animal oils.

Discharge involves but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping of a material. However, some "discharges" are allowed as authorized by a permit issued under to section 13 of the River and Harbor Act of 1899, or section 402 or 405 of the Federal Water Pollution Control Act (FWPCA) Amendments of 1972.

Spill Event is a discharge of in a harmful quantity into the navigable waters of the US or the adjoining shorelines.

RO or Reportable Quantity is established under the Superfund, Emergency Planning, and Community Right-To-Know Program (40 CFR Part 302) as the quantity of a given material, which when released by an owner or operator, requires notification of the National Response Center.

Harmful Quantity is a quantity of oil which

- (1) Violates applicable water quality standards; or
- (2) Causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines; or
- (3) Causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

* - Discharges from properly operating vessel engines are exempted.

Applicable Water Quality Standards are water quality standards adopted by a state pursuant to Section 303 of the FWPCA or promulgated by the EPA pursuant to that section.

Navigable waters of the United States are defined in section 502(7) of the FWPCA, and includes:

- (1) All navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972 Amendments to the FWPCA, and tributaries of such waters;
- (2) Interstate waters, including interstate wetlands;
- (3) Intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and
- (4) Intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

Owner or operator means any person owning or operating an onshore or an offshore facility, and in the case of an abandoned offshore facility, the person who owned or operated the facility immediately prior to abandonment.

Non-transportation related facility is defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the EPA, as all fixed facilities, including support equipment, but excluding interstate pipelines, railroad tank cars en route, transport trucks en route, and terminals associated with the transfer of bulk oil to and from a water transportation vessel. The term also includes mobile or portable facilities such as onshore drilling or workover rigs, barge-mounted offshore drilling or workover rigs, and portable fueling facilities while they are in a fixed, operating mode.

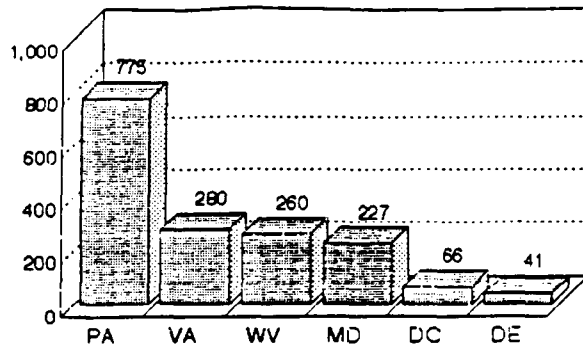
Onshore facility means any facility of any kind located in, on, or under any land within the United States, other than submerged lands, which is not a transportation-related facility.

Offshore facility is defined as any facility of any kind located in, on or under any of the navigable waters of the United States, which is not a transportation-related facility.

Source: 40 CFR Part 112 (7-1-90)

Breakdown of Oil Spill Reports

Region III - Fiscal Year 1992



Source: Regional Response Center (Six Year Trends)

Sources Of Oil Spills

Transportation



Non-Transportation



Inland Spill Classification

< 1,000 gallons	--->	MINOR
1,000 - 10,000 gallons	--->	MEDIUM
> 10,000 gallons	--->	MAJOR

SPCC HISTORY

Oil Pollution Prevention Regulation



- Spill Prevention, Control and Countermeasures (SPCC), became effective January 10, 1974.
 - ▶ Derives authority from Section 311 of the Clean Water Act (CWA).

H812

SPCC History

SPCC HISTORY

Memorandum of Understanding (MOU)



- Developed between the EPA and DOT to clarify the meanings of "Transportation and Non-Transportation-Related Facilities".



H812

SPCC History

SPCC HISTORY

Amendments to SPCC Regulation

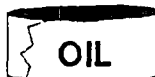


- August 29, 1974:
 - ▶ Set forth EPA's policy on civil penalties for violating Section 311 of CWA.
- March 26, 1976:
 - ▶ Clarified SPCC applicability criteria.
 - ▶ Specified that SPCC plans must be written.
 - ▶ Outlined procedures for developing an SPCC plan for mobile facilities.

H812

SPCC History

SPCC HISTORY



- Major Oil Spill - January 2, 1988
 - ▶ 4 million gallon AST collapsed and spilled 3.8 million gallons of diesel fuel.
 - ▶ Approximately 750,000 gallons entered into the Monongahela River.
 - ▶ Affected the water supplies of 70 communities across 3 States.

HIST-1

SPCC History

SPCC HISTORY

SPCC Task Force Report



- Focused on prevention of large catastrophic spills.
- Made recommendations regarding the Federal SPCC program.

HIST-2

SPCC History

SPCC HISTORY

PROPOSED RULE



- October 22, 1991:
 - ▶ Developed to clarify that certain provisions in the regulation are mandatory.
 - ▶ May require facilities to notify EPA for the purpose of developing a comprehensive inventory of SPCC-regulated facilities.

HIST-3

SPCC History

SPCC HISTORY

OPA-1990



- Signed into law on August 18, 1990.
- Made significant modifications to Section 311 of CWA.

NOTE

SPCC History

OPA KEY PROVISIONS

- Expands Federal Role In Response
- Establishes Oil Spill Liability Trust Fund
- Requires Contingency Planning (FRP)
- Requires Double Hulls
- Provides For Research And Development
- Increases Liability For Spills

OPA-1990

Liability Limitations

- Tank vessels > 3,000GT's; \$1,200/GT or \$10M, whichever is greater
- Tank vessels ≤ 3,000GT's; \$1,200/GT or \$2M, whichever is greater.
- Any other vessel, \$600/GT or \$500,000, whichever is greater.
- For offshore facilities, except deepwater ports, the total of the removal costs plus \$75M.
- For onshore facilities and deepwater ports, \$350M/spill.

NOTE

SPCC History

Liability Caps Can Be Broken

1. Spill was caused by gross negligence, willful misconduct or the violation of federal safety, construction, or operating regulations.
2. Failure to report a known spill.
3. Failure or refusal to cooperate with removal actions.
4. Failure to comply with an order issued under the CWA or the Intervention on the High Seas Act.

88120

SPCC History

Section 112.2

Important Definitions

- Oil
- Discharge; Spill Event
- Harmful Quantity; Applicable Water Quality Standards
- Navigable Waters; Adjoining Shorelines
- Owner or Operator
- Non-Transportation Related Facility
- Onshore and Offshore Facility

SEC 2-1

Section 112.1

SPCC applies to:

- Non-transportation-related facilities that:
 - ▶ Due to their location, could reasonably be expected to discharge oil into or upon the navigable waters of the U.S. or adjoining shorelines.
 - ▶ Have a total under-ground storage capacity > 42,000 gallons, or
 - ▶ Have a total above-ground storage capacity > 1,320 gallons, or
 - ▶ Have a single, above-ground storage tank with a capacity > 660 gallons.

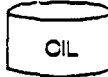
SPCC

112.1 General Applicability

Section 112.1

The SPCC regulation

- Establishes procedures, methods, and equipment to prevent oil discharges into or upon the navigable waters of the U.S. or adjoining shorelines.
- Does not relieve the owner/operator from compliance with other existing Federal, State, and Local laws.
- Concentrates on prevention, not response to discharges of oil in "harmful quantities".
- Complements existing laws, regulations, rules, standards, policies and procedures.



SEC - 1A

Section 112.1

General Information

Organizations that should be considered for current regulations, standards and codes:

- American Petroleum Institute (API)
- National Fire Protection Association (NFPA)
- American Society of Mechanical Engineers (ASME)
- American National Standards Institute (ANSI)
- Underwriters Laboratory (UL)

SEC - 1B

112.1 Applicability

Section 112.3

Time Requirements



- Facilities are required to:
 - develop a plan within 6 months of starting operations.
 - fully implement the plan within 1 year of starting operations.

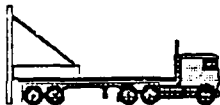
SEC - 1C

F

Section 112.3

Mobile Facilities

- Must have an SPCC plan prepared in accordance with 40 CFR Part 112.7
- No mobile facility can legally operate without having an SPCC plan implemented.



110324

Section 112.3

Other Requirements

- The SPCC plan must be reviewed and certified by a PE, and
- Must be available to the RA for review during normal working hours.



110325

Section 112.3

Extensions of Time



- Can be granted by the RA because of the non-availability of qualified personnel or delays in construction or equipment delivery, beyond the control of the owner/operator.

110326

Section 112.4

Submitting Plans to EPA

- Inspector requests a copy, or
- Oil is discharged into or upon the navigable waters of the U.S. or adjoining shorelines:
 - at > 1,000 U.S. gallons in a single spill event, or
 - in "harmful quantities" in two spill events in any 12 month period.

SEC-1

112.4 RA Plan Amendments

Section 112.4

Written Reports Include:

- Copy of SPCC plan.
- Facility name
- Owner/operator name.
- Location of facility.
- Date of initial operation.
- Maximum oil storage capacity and average daily throughput.

112.4

112.4 RA Plan Amendments

Section 112.4

Written Reports (cont.)

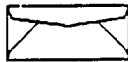
- Facility description
- Cause(s) of the spill(s).
- Corrective measures taken.
- Additional preventative measures.
- Other information requested by the RA.

112.4

112.4 RA Plan Amendments

If the RA Proposes Amendment(s)

- The owner/operator will be notified via certified mail, and must
 - make the amendment(s) part of the plan within 30 days.
 - implement the amendment(s) within 6 months.



82004

112.4 RA Plan Amendments

Appeals

- Informal appeal to RA:
 - Written statements or views opposing the amendment.
- Formal appeal to the EPA Administrator:
 - Clear, concise statement of the issues.
 - Additional information from any other person.

82004

112.4 RA Plan Amendments

Owner/Operator Amendments

- The owner or operator must review the facility's SPCC plan every 3 years.
- The plan shall be amended within 6 months of the review to include a more effective technology if:
 - ▶ The technology significantly reduces the likelihood of a spill event at the facility.
 - ▶ The technology has been field-proven.

82004

112.5 Owner/Operator Plan Amendments

Section 112.5

Owner/Operator Amendments

- A facility's SPCC plan must be amended when there is a "change" in facility design, construction, operation or maintenance that materially affects the facility's potential to discharge oil.
- The amendment(s) must be fully implemented within 6 months.

SEC-2

112.5 Owner/operator Plan Amendments

Section 112.5

Examples of changes:

- Commission or decommission of tanks.
- Replacement, reconstruction, or movement of tanks.
- Replacement, reconstruction, or installation of piping systems.
- Construction or demolition that might alter secondary containment structures.
- Revision of standard operation or maintenance procedures at a facility.

SEC-4

EPA's Goal:

COMPLIANCE

SEC-5

Civil Penalties

- Penalties are determined using the following factors:
 - seriousness of violation.
 - economic benefit to violator resulting from violation.
 - degree of culpability involved.
 - penalties for same incident from other agencies.
 - violation history.
 - efforts by the violator to minimize effects of discharge.
 - economic impact of the penalty on violator.
 - any other matters as justice may require.

87064

112.6 Civil Penalties

Section 112.6

Civil Penalties

- The November 4, 1992 Interim Rule amends both Section 112.6 and 114.1.

- ▶ These sections are now only applicable to violations occurring prior to 8/18/90.
- ▶ Violations occurring after 8/18/90 will be subject to either a Class I or Class II civil penalty, as outlined in Section 311(b)(6) of the OPA amended CWA.



87064

112.6 Civil Penalties

Section 112.6

Types of Civil Penalties

1. Class I Penalties:
 - ▶ Can not exceed \$10,000 per violation.
 - ▶ Maximum penalty of \$25,000.
2. Class II Penalties:
 - ▶ Can not exceed \$10,000 per day for each day the violation continues.
 - ▶ Maximum penalty of \$125,000.
3. DOJ referrals:



87064

112.6 Civil Penalties

General Information

- SPCC plans should be prepared using good engineering practices, and
- Have the full approval of management with the authority to commit the necessary resources.



800740

112.7 Plan Preparation Guidelines

General Information (cont.)

- An SPCC plan includes:
 - ▶ Predictions of equipment failure.
 - ▶ Appropriate containment or diversionary structures.

800741

112.7 Plan Preparation Guidelines

Containment or Diversionary Structures

- For onshore facilities:
 - Dikes, berms or retaining walls sufficiently impervious to contain the spilled oil.
 - Curbing.
 - Culverting, gutters or other drainage systems.
 - Weirs, booms or other barriers.
 - Retention ponds.
 - Sorbent materials.
 - Vaulted and doubled walled tanks.

800742

112.7 Plan Preparation Guidelines

Containment or Diversionary Structures

- For offshore facilities:
 - ▶ Curbing, drip pans.
 - ▶ Sumps and collection systems.

SECTION

112.7 Plan Preparation Guidelines

Containment or Diversionary Structures

- If installing structures or equipment is not practicable, you must:
 - ▶ Maintain a written spill contingency plan (40 CFR 109), and
 - ▶ Have a written commitment of equipment and materials to contain and abate a spill.

SECTION

112.7 Plan Preparation Guidelines

Guidelines

1. Facility drainage, onshore. *
2. Bulk storage tanks, onshore. *
3. Facility transfer operations, pumping, and in-plant processes. *
4. Facility tank car and tank truck loading/unloading, onshore.
5. Inspection and records.

* Excludes production facilities

SECTION

112.7 Plan Preparation Guidelines

Guidelines (cont.)

6. Security.*
7. Personnel training and spill prevention procedures.
8. Oil production facilities, onshore.
9. Oil drilling and workover facilities, onshore.
10. Oil drilling, production, or workover facilities, offshore.

* Excludes production facilities

SE0746

1127 Plan Preparation Guidelines

Section 112.7

* Facility Drainage - Onshore

- Drainage from diked storage areas
 - ▶ Should have positive restraint.
 - ▶ Should be manually activated.
 - ▶ Should be inspected.
- Drainage from undiked areas
 - ▶ Should flow to a containment area a diversionary system.
- Treatment systems
 - ▶ Should be engineered to prevent overflow.

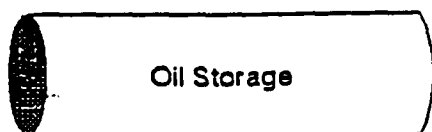
SE0747

1127 Plan Preparation Guidelines

Section 112.7

* Bulk Storage Tanks - Onshore

- Tanks must be made of materials compatible with the oil to be stored.
- There must be secondary containment for all tanks.



SE0748

1127 Plan Preparation Guidelines

* Bulk Storage Tanks - Onshore (cont.)

- Rainwater from a diked area may bypass in-plant treatment if:
 - ▶ The bypass is normally kept in the closed position.
 - ▶ The discharge is inspected prior to release.
 - ▶ The discharge does not violate applicable water quality standards.
 - ▶ The valve is opened and resealed under proper supervision.
 - ▶ Proper records are kept.

SECTION

112.7 Plan Preparation Guidelines

* Bulk Storage Tanks - Onshore (cont.)

- Buried metallic tanks
 - ▶ Protect from corrosion
 - ▶ Pressure test regularly
- Partially buried metallic tanks
 - ▶ Should be avoided unless the buried portion is protected from corrosion.

SECTION

112.7 Plan Preparation Guidelines

* Bulk Storage Tanks - Onshore (cont.)

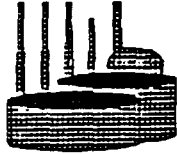
- Aboveground tanks
 - ▶ Periodic integrity testing.
 - ▶ Frequent visual inspections.
- Internal heating coils
 - ▶ Exhaust should be monitored or treated.

SECTION

112.7 Plan Preparation Guidelines

* Bulk Storage Tanks - Onshore (cont.)

- New and old tanks should be fail safe.
- Leaking tanks should be repaired promptly.
- Portable oil tanks need secondary containment.



550746

112.7 Plan Preparation Guidelines

* Transfer Operations, Pumping, & In-Plant Process - Onshore

- Buried pipes should be protected from corrosion.
- Out-of-service or standby status pipes should be capped or blank flanged.
- Pipe racks should be designed to account for expansion and minimize corrosion.
- Aboveground piping and valves should be inspected regularly.
- Warnings must be posted to warn traffic of aboveground piping.

550747

112.7 Plan Preparation Guidelines

Tank Car & Tank Truck Loading/Unloading racks - Onshore

- Facilities must meet the minimum DOT standards.
- Rack areas should have secondary containment to handle a spill from the largest tank compartment filled at that location.
- A system should be established to prevent vehicle departures before disconnecting.
- All tank car and tank truck openings should be inspected for leaks before and after loading.



550748

112.7 Plan Preparation Guidelines

Inspections and Records

- Inspections should be performed in accordance with a written procedure.
- Inspection records should be signed by an appropriate supervisor or inspector.
- Both the written procedures and the inspection records should be made part of the facility's SPCC plan for a period of 3 years.



SLO749

112.7 Plan Preparation Guidelines

Section 112.7

* Security

- Facilities should be fenced with entrance gates locked and/or guarded.
- Master flow and drain valves, pump controls, and loading/unloading connections should be protected when not in use.
- Facility lighting should aid in spill detection as well as deter vandals.



SLO746

112.7 Plan Preparation Guidelines

Section 112.7

Personnel Training and Spill Prevention Procedures

- Owners and operators are responsible for proper instruction of personnel.
- Each facility should designate an individual to be accountable for spill prevention.
- Operational personnel should be briefed regularly to assure that the facility SPCC plan is adequately understood.

SLO747

112.7 Plan Preparation Guidelines

Oil Production Facilities - Onshore

- **Drainage:**
 - ▶ Dikes must be sealed closed except when being drained.
 - ▶ Drainage ditches should be checked regularly for accumulation of oil.
- **Bulk storage tanks:**
 - ▶ Must be compatible with the oil to be stored.
 - ▶ Must have secondary containment.
 - ▶ Undiked areas should flow to a catchment basin or holding pond.
 - ▶ Must be visually inspected on a regular basis.

000748

112.7 Plan Preparation Guidelines

Oil Production Facilities: Bulk Storage Tanks - Onshore

- Tanks should be fail-safe engineered, including:
 - ▶ Adequate tank capacities.
 - ▶ Overflow equalizing lines installed between tanks.
 - ▶ Vacuum protection.
 - ▶ Level sensor alarm

000749

112.7 Plan Preparation Guidelines

Oil Production Facilities: Facility Transfer Operations - Onshore

- Aboveground pipes must be examined periodically.
- Frequent examination of saltwater disposal facilities must be conducted.
- The facility must maintain a program of flowline maintenance.

000750

112.7 Plan Preparation Guidelines

Drilling and Workover Facilities - Onshore

- Mobile equipment must be positioned so as to prevent a spill into the water.
- Blowout prevention assemblies and well controls should be used.

SECTION

112.7 Plan Preparation Guidelines

Drilling, Production, or Workover Facilities - Offshore

- Surface and sub-surface shut-in valves should be easily identifiable.
- Prior to drilling, a blowout prevention assembly and well control system should be installed.
- Extra-ordinary well control measures should be in place in case of emergencies.
- Sub-marine pipelines should be protected from environmental stress and other activities.

SECTION

112.7 Plan Preparation Guidelines

PROPOSED RULE

Revision of Section 112.7



- *Section 112.7 - SPCC plan general requirements.*
- *Section 112.8 - SPCC plan requirements for onshore facilities (excluding production facilities).*
- *Section 112.9 - SPCC plan requirements for onshore oil production facilities.*
- *Section 112.10 - SPCC plan requirements for onshore drilling and workover facilities.*
- *Section 112.11 - SPCC plan requirements for offshore oil drilling, production, or workover facilities.*

PAGE 2

112.6 Civil Penalties

Evaluation of the Plan/Program

- Is your plan current and effective?
- Do your people know what to do when a spill occurs?
- Does the equipment work?
- Can your people use the equipment safely and effectively?
- Do they know who to call for help?

EVAL 1

What to expect during an SPCC Inspection

When an SPCC inspector visits your facility, there are a few tips that can make the inspection proceed smoothly. The inspector will announce him/herself and ask for the person responsible for the facility SPCC plan. The inspector should be directed to a person who can present the inspector with the written SPCC plan and answer questions about the plan. The inspection will start with the completion of a form called an Acknowledgement and Record of SPCC Inspection/Plan Review. Important information for the completion of this form includes the facility address and phone number, owner or operator address and phone number if different, a company contact and a brief synopsis of the facility operations. The facility contact will be asked to sign the acknowledgement form, and a copy will be given to him/her as a record of the inspection.

The inspection is an evaluation of the effectiveness of your written SPCC plan and the application of that plan at your facility. The SPCC plan must have been reviewed and certified by a professional engineer, and the inspector will want to see the PE's registration number, signature and seal on the plan. The plan must also contain documentation verifying that the Plan was reviewed every three years. In addition, the inspector will want to verify if the Plan has been amended as required and that the amendments were certified by a registered PE.

After reviewing the written plan, the inspector will conduct a site tour and ask specific questions regarding the implementation of the facility Plan. Other information that will be helpful include a site map, a list of tanks and their storage capacity, and the location of the nearest navigable waters, storm sewers etc. Any questions regarding the inspection can be posed to the OSC in charge of the inspection.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

ACKNOWLEDGEMENT AND RECORD OF SPCC INSPECTION/PLAN REVIEW
SPCC CASE NUMBER: _____ DATE: _____

TO: Vincent E. Zenone, OSC/SPCC Coordinator (3HW34)

FROM: _____

Name of Facility: _____
Address: _____
City: _____
County: _____ State: _____
Facility Contact/Title: _____
Telephone Number: _____

Name of Owner/operator: _____
Address: _____
City: _____ State: _____
Telephone Number: _____

Synopsis of business operations: _____

Acknowledgement:

I acknowledge that an SPCC inspection of this facility
was conducted on the _____ day of _____, 19____.

Facility Signature: _____
(printed name): _____

Inspector's Signature: _____
(printed name): _____

note: During this inspection the owner/operator of the facility was asked to provide an extra copy of the SPCC Plan, which will be submitted with this report to the SPCC Coordinator. An extra copy of the SPCC Plan was provided to the inspector (Y/N). If no, the owner/operator of the facility has been asked to send a copy of the SPCC Plan, if available, via certified mail, return receipt requested, within 14 days of the date of this inspection to the SPCC Coordinator (mail code 3HW34) at the address on this letterhead (Y/N).

[original to SPCC Coordinator, copy to facility representative]

40 CFR Part 112.20

Facility Response Plans



OPA Q's & A's: Overview of the Oil Pollution Act of 1990

Office of Emergency and Remedial Response
Emergency Response Division OS-210

Quick Reference Fact Sheet

Thousands of oil spills occur in the United States each year. Over the three-year period from 1988 through 1990, the Federal government received 42,000 notifications of oil discharges -- an average of 15,000 per year, or about 40 notifications per day. In 1990 alone, there were 24 oil spills that exceeded 100,000 gallons, five of which were greater than 1 million gallons. In 1989, 38 oil spills exceeded 100,000 gallons, including the devastating *Exxon Valdez* spill in Alaska's Prince William Sound. In response to the new public awareness of the damaging effects of major oil spills, Congress unanimously enacted tougher oil spill legislation and, on August 18, 1990, the President signed into law the Oil Pollution Act of 1990 (OPA or the Act).

On October 18, 1991, the President issued Executive Order 12777, delegating the authority for implementing provisions of the OPA to several Federal agencies and departments, including the U.S. Environmental Protection Agency (EPA) and the U.S. Coast Guard (USCG). These "OPA Q's & A's" are part of a series of fact sheets that provide up-to-date information on EPA's implementation of the OPA. This first fact sheet provides an overview of the various provisions of the OPA and the Agency's responsibilities under the new law.

General Overview

Q1. What is the OPA?

- A. The OPA (Pub. L. 101-380) is a comprehensive statute designed to expand oil spill prevention, preparedness, and response capabilities of the Federal government and industry. The Act establishes a new liability and compensation regime for oil pollution incidents in the aquatic environment and provides the resources necessary for the removal of discharged oil. The OPA consolidates several existing oil spill response funds into the Oil Spill Liability Trust Fund, resulting in a \$1-billion fund to be used to respond to, and provide compensation for damages caused by, discharges of oil. In addition, the OPA provides new requirements for contingency planning both by government and industry and establishes new construction, manning, and licensing requirements for tank vessels. The OPA also increases penalties for regulatory noncompliance, broadens the response and enforcement authorities of the Federal government, and preserves State authority to establish laws governing oil spill prevention and response.

Q2. How does the OPA affect existing laws and regulations?

- A. The OPA amends section 311 of the Federal Water Pollution Control Act (the Clean Water Act or CWA, 33 U.S.C. 1321 *et seq.*), to clarify Federal response authority, increase penalties for spills, establish USCG response organizations, require tank vessel and facility response plans, and provide for contingency planning in designated areas. Many of the statutory changes will require corresponding changes to the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), codified at 40 CFR Part 300. In addition, the OPA repeals the following statutory provisions and merges the funds established under these laws with the Trust Fund: (1) CWA section 311(k); (2) Title III of the Outer Continental Shelf Lands Act Amendments of 1978 (43 U.S.C. §1811 *et seq.*); (3) section 18(f) of the Deepwater Port Act of 1974 (33 U.S.C. §1502 *et seq.*); and (4) section 204(c) of the Trans-Alaska Pipeline Authorization Act (43 U.S.C. §1651 *et seq.*), except for amounts necessary to pay remaining claims. The OPA also makes the Trust Fund available for actions taken in accordance with the Intervention on the High Seas Act (33 U.S.C. §1486 *et seq.*). The OPA, however, does not preempt States' rights to impose additional liability or other

destroy a vessel discharging, or threatening to discharge. If the discharge is of such size or character as to pose a substantial threat to the public health or welfare, the Federal government is required to direct all public and private efforts to remove the discharge. For all other discharges, the Federal government has the discretion to take action, direct, or monitor public or private actions to remove the discharge. To facilitate and expedite emergency responses to discharges that pose a substantial threat to the public health or welfare, OPA section 4201 amends the CWA to exempt the Federal government from certain laws governing contracting procedures and the employment of personnel. In addition, an amendment to section 311(c) of the CWA provides an exemption from liability for response costs and damages which result from actions taken, or not taken, by a person rendering care, assistance, or advice consistent with the NCP. This exemption does not apply: (1) to a responsible party; (2) to a response conducted pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 *et seq.*); (3) with respect to personal injury or wrongful death; or (4) if the person is grossly negligent or engages in willful misconduct. The intent of the OPA is to enable the Federal government to direct responses that are both immediate and effective.

Q6. Many States have laws governing oil spill prevention and response. Does the OPA preempt State laws?

- A. No; section 1018(a) of the OPA specifically provides that the Act does not preempt State law. States may impose additional liability (including unlimited liability), funding mechanisms, requirements for removal actions, and fines and penalties for responsible parties. Section 1019 of the OPA provides States the authority to enforce, on the navigable waters of the State, OPA requirements for evidence of financial responsibility. States are also given access to Federal funds (up to \$250,000 per incident) for immediate removal, mitigation, or prevention of a discharge, and may be reimbursed by the Trust Fund for removal and monitoring costs incurred during oil spill response and cleanup efforts that are consistent with the NCP.

Liability and Financial Responsibility

Q7. What provisions for oil spill liability does the OPA establish?

- A. Title I of the OPA contains liability provisions governing oil spills modeled after CERCLA and sec-

tion 311 of the CWA. Specifically, section 1002(a) of the OPA provides that the responsible party for a vessel or facility from which oil is discharged, or which poses a substantial threat of a discharge, is liable for: (1) certain specified damages resulting from the discharged oil; and (2) removal costs incurred in a manner consistent with the NCP. Highlight 2 identifies the types of "damages" that responsible parties are potentially liable for under the OPA. Section 1002(d) also provides that if a responsible party can establish that the removal costs and damages resulting from an incident were caused solely by an act or omission of a third party, the third party will be held liable for such costs and damages. In these cases, however, the responsible party is still required to pay the removal costs and damages resulting from the incident, but is entitled by subrogation to recover all costs and damages from the third party or the Trust Fund.

Highlight 2: Damages for Which Responsible Parties Are Potentially Liable

The scope of damages for which oil dischargers may be liable under section 1002 of the OPA includes:

- Natural resource damages, including the reasonable costs of assessing these damages;
- Loss of subsistence use of natural resources;
- Real or personal property damages;
- Net loss of tax and other revenues;
- Loss of profits or earning capacity; and
- Net cost of additional public services provided during or after removal actions.

Q8. Does the OPA provide defenses to its oil spill liability provisions?

- A. Yes; section 1002(c) of the OPA provides exceptions to the statute's liability provisions. The exceptions include: (1) discharges of oil authorized by a permit under Federal, State, or local law; (2) discharges of oil from a public vessel; or (3) discharges of oil from onshore facilities covered by the liability provisions of the Trans-Alaska Pipeline Authorization Act.

In addition, section 1003 of the OPA provides the responsible party with defenses to liability imposed under section 1002 of the Act if the responsible party establishes that the spill was caused solely by: (1) an act of God; (2) an act of war; (3) an act or

requirements with respect to the discharge of oil within a State or to any removal activities in connection with such a discharge.

Q3. Which Federal agencies are responsible for implementing the OPA?

- A. On October 18, 1991, the President issued Executive Order 12777, delegating authority to implement the OPA to various Federal agencies and departments, including EPA and the USCG (via the U.S. Department of Transportation or DOT). Forthcoming memoranda of understanding between EPA and the USCG will address how the two agencies will interact in carrying out their respective responsibilities. In general, EPA is responsible for oil spill prevention, preparedness, and response activities associated with non-transportation-related onshore facilities. The Agency has lead responsibility for implementing many of the OPA provisions in the inland zone, including revising the NCP, developing non-transportation-related facility response plan regulations, reviewing and approving facility response plans, designating areas, appointing Area Committee members, and establishing requirements for Area Contingency Plans.

In addition, the DOT (including, in some cases, the USCG) generally is responsible for oil spill planning and response activities for tank vessels, transportation-related onshore facilities, and deepwater ports. The U.S. Department of Interior generally is responsible for oil spill planning and response activities for offshore facilities except deepwater ports. Under the OPA, the National Oceanic and Atmospheric Administration is developing regulations for natural resource trustees to assess damages to natural resources caused by oil discharges.

Q4. How are the EPA program offices carrying out their responsibilities under the OPA?

- A. Most OPA provisions delegated to EPA are being implemented by EPA's Emergency Response Division (ERD), a part of the Office of Emergency and Remedial Response within the Office of Solid Waste and Emergency Response. Within ERD, the newly created Oil Pollution Response and Abatement Section will play a major role in carrying out the Agency's responsibilities under the OPA. Moreover, to coordinate the many efforts required under the Act, EPA formed the OPA Implementation Workgroup, chaired by the Director of ERD. A variety of Headquarters and Regional offices are represented on this workgroup; EPA Region 2 currently participates as the lead Regional representative. Within the overall workgroup, a number of other workgroups are implementing specific OPA provisions (see Highlight 1).

Highlight 1: EPA Workgroups to Implement the OPA

- The Regional Implementation workgroup is developing recommendations on EPA's expanded role and responsibilities in preventing and responding to oil spills.
- The Area Contingency Plans workgroup is studying issues associated with designating areas for which Area Committees and Area Contingency Plans are to be established.
- The Facility Response Plans workgroup, which has been incorporated into the existing Spill Prevention, Control, and Countermeasures (SPCC) Phase Two Workgroup, is developing regulations for facility response plans, as well as interim guidance for reviewing such plans.
- The NCP Revisions workgroup is developing the revisions to the NCP required by the OPA. A subworkgroup has been established to focus on revising Subpart J to establish procedures for using chemical agents to respond to oil spills.
- The Enforcement workgroup is reviewing EPA enforcement responsibilities in light of the new penalty provisions added by the OPA.
- The Liner Study workgroup is preparing a report to Congress on whether liners or secondary containment should be used to prevent discharges from onshore facilities.
- The Research and Development workgroup is coordinating EPA's program of oil pollution research and technology development and demonstration.

Federal and State Roles

Q5. What is the Federal government's role when responding to releases of oil?

- A. Under section 311(c) of the CWA, as amended by section 4201(a) of the OPA, the Federal government must ensure the effective and immediate removal of a discharge (or a substantial threat of a discharge) of oil or hazardous substance: (1) into or on navigable waters and adjoining shorelines; (2) into or on the waters of the exclusive economic zone; or (3) that may affect natural resources of the U.S. In carrying out this provision, the Federal government may: (1) remove or arrange for the removal of a discharge, subject to reimbursement from the responsible party; (2) direct or monitor all Federal, State, and private actions to remove a discharge; or (3) remove and, if necessary,

under section 9509 of the Internal Revenue Act of 1986 (26 U.S.C 9509), to pay for removal costs and/or damages resulting from discharges of oil into U.S. waters or supplement existing sources of funding. The Trust Fund, which is administered by the USCG, is based on a five-cent-per-barrel environmental fee on domestic and imported oil. The OPA amends section 9509 of the Internal Revenue Act of 1986 to consolidate funds established under other statutes and to increase permitted levels of expenditures. Specifically, section 9001(a) of the OPA consolidates the assets and liabilities remaining with, and the penalties paid pursuant to, the funds established under: (1) section 311 of the CWA; (2) section 18(f) of the Deepwater Port Act of 1974; (3) Title III of the Outer Continental Shelf Lands Act of 1978; and (4) section 204 of the Trans-Alaska Pipeline Authorization Act (after settlement of existing claims). The OPA amends the resulting Trust Fund by expanding permissible expenditures from \$500 million per incident, and a separate \$250-million per incident limit on natural resource claims, to \$1 billion per incident and a \$500-million per incident spending limit on natural resource damages. In addition, the OPA increases the Trust Fund borrowing limit from \$500 million to \$1 billion.

Oil Spill Preparedness and Prevention

Q13. How will implementation of the OPA help oil spill planning and prevention efforts?

- A. Section 4202 of the OPA strengthens planning and prevention activities by: (1) providing for the establishment of spill contingency plans for all areas of the U.S.; (2) mandating the development of response plans for individual tank vessels and certain facilities; and (3) providing requirements for spill removal equipment and periodic inspections. These efforts are intended to result in more prompt and effective cleanup or containment of oil spills, thereby preventing spills from becoming larger and reducing the amount of damage caused by oil spills.

The development of Area Contingency Plans will assist the Federal government in planning response activities. In addition, owners and operators of tank vessels, offshore facilities, and any onshore facilities that because of their location could cause substantial harm to the environment from a discharge, are required to prepare and submit to the Federal government plans for responding to discharges, including a worst case discharge or a threat of such discharge. If response plans are not developed and approved as required by section 311(j)(5) of the CWA, as amended by the OPA, the tank vessel or facility will

be prohibited from handling, storing, or transporting oil unless the tank vessel or facility submits a plan to the Federal government and receives temporary approval to continue operations (see Question #16 of this fact sheet). In addition, containment booms, skimmers, vessels, and other major spill removal equipment must be inspected periodically; tank vessels must carry removal equipment that uses the best technology economically feasible and is consistent with the safe operation of the vessel.

Moreover, the higher limits on liability and the broader scope of damages for which dischargers may be liable under the OPA should serve as added incentives for facilities and vessels to prevent spills. In addition, EPA is taking the lead or participating in several studies and research and development efforts that will aid in spill prevention. Other requirements of the OPA being implemented by the USCG -- such as establishing a National Response Unit and District Response Groups and new standards for tank vessel construction, crew licensing, and manning -- also will help to prevent or mitigate spills.

Q14. What are Area Committees and Area Contingency Plans?

- A. Area Committees, to be composed of qualified Federal, State, and local officials, will be created to develop Area Contingency Plans. At a minimum, Area Contingency Plans are intended to ensure the removal of a worst case discharge, and to mitigate or prevent a substantial threat of such a discharge, from a vessel or facility in or near the area covered by the plan. In the case of an onshore facility, a worst case scenario is defined as the largest foreseeable discharge under adverse weather conditions. Area Contingency Plans will describe areas of special environmental importance, outline the responsibilities of government agencies and facility or vessel operators in the event of a spill, and detail procedures on the coordination of response plans and equipment. In accordance with Executive Order 12777, EPA is responsible for reviewing and approving Area Contingency Plans for the inland zone, whereas the USCG has similar responsibilities for the coastal zone.

Q15. Does the OPA require onshore facilities to prepare and submit a facility response plan?

- A. Yes; section 4202 of the OPA amends section 311(j)(5) of the CWA to require the owner or operator of a tank vessel, offshore facility, and certain onshore facilities to prepare and submit to the Federal government a plan for responding, to the maximum extent practicable, to a worst case discharge, or substantial threat of such a discharge, of oil or hazardous substances. Specifically, OPA

omission of a third party; or (4) any combination of these events. To prevail in a third-party defense, the responsible party must prove that it took due care in handling the oil and took precautions against any foreseeable acts of the third party and any foreseeable consequences of those actions. However, the defenses contained in section 1003 are not available to responsible parties that: (1) do not report an incident of which they are aware; (2) do not cooperate with response officials during removal actions; or (3) without sufficient cause, do not comply with an order issued under section 311 of the CWA, as amended, or the Intervention on the High Seas Act.

Q9. Does the OPA establish limits on liability?

- A. Yes; the OPA establishes significantly higher limits of liability for tank vessels, facilities, and deepwater ports than existed previously under section 311 of the CWA. Specifically, section 1004 of the OPA increases the liability for tank vessels larger than 3,000 gross tons to \$1,200 per gross ton or \$10 million, whichever is greater. Responsible parties at onshore facilities and deepwater ports are liable for up to \$350 million per spill; holders of leases or permits for offshore facilities, except deepwater ports, are liable for up to \$75 million per spill, plus removal costs. Section 1004(d)(1) of the OPA, however, provides the Federal government with the authority to adjust, by regulation, the \$350-million liability limit established for onshore facilities, "taking into account size, storage capacity, oil throughput, proximity to sensitive areas, type of oil handled, history of discharges, and other factors relevant to risks posed by the class or category of facility." The Agency is currently assessing the desirability of adjusting the liability limit for onshore non-transportation-related facilities based on these factors.

In addition, the OPA establishes the following conditions under which liability would be unlimited: (1) discharges caused by gross negligence, willful misconduct, or violation of Federal safety, construction, or operating regulations; (2) failure to report a known spill; (3) failure or refusal to cooperate in a removal action; or (4) failure or refusal to comply with an order issued under section 311 of the CWA, as amended, or the Intervention on the High Seas Act. In addition, the owner or operator of an Outer Continental Shelf facility, or vessel carrying oil as cargo from such a facility, is required to pay for all removal costs incurred by the U.S. Government or any State or local agency in connection with a discharge, or substantial threat of a discharge, of oil.

Q10. What penalties are responsible parties subject to under the OPA?

- A. Section 4301(a) of the OPA amends the CWA to increase the criminal penalties for failure to notify the appropriate Federal agency of a discharge. Specifically, the fine is increased from a maximum of \$10,000 to a maximum of \$250,000 for an individual or \$500,000 for an organization. The maximum prison term is also increased from one year to five years.

In addition, section 4301(b) of the OPA amends the CWA to authorize a civil penalty of \$25,000 for each day of violation or \$1,000 per barrel of oil discharged. These penalties are higher in cases of gross negligence or willful misconduct. Failure to comply with a Federal removal order can result in civil penalties of up to \$25,000 for each day of violation or three times the resulting costs incurred by the Trust Fund. Under section OPA 4301(c), criminal penalties can range up to \$250,000 and 15 years in prison. EPA and the USCG also have the authority to administratively assess civil penalties of up to \$125,000 against violators of the Oil Pollution Prevention Regulations (40 CFR Part 112) or those responsible for the discharge of oil or hazardous substances.

Q11. Are all parties regulated under the OPA required to provide evidence of financial responsibility?

- A. No; owners and operators of onshore facilities are not required to maintain financial assurance mechanisms. Owners and operators of offshore facilities, certain vessels, and deepwater ports, however, must provide evidence of financial responsibility. Specifically, section 1016 of the OPA requires that offshore facilities maintain evidence of financial responsibility of \$150 million and vessels and deepwater ports must provide evidence of financial responsibility up to the maximum applicable liability limitation amount. Any vessel subject to this requirement that cannot produce evidence of financial responsibility is not allowed to operate in U.S. waters. Methods of assuring financial responsibility under the OPA include evidence of insurance, surety bond, guarantee, letter of credit, or qualification as a self-insurer. Also, OPA section 1016(f) provides that claims for removal costs and damages may be asserted directly against the guarantor providing evidence of financial responsibility.

Q12. Are there funds available if cleanup costs and damages cannot be recovered from responsible parties?

- A. Yes; the OPA authorizes the expenditure of funds from the Oil Spill Liability Trust Fund, established

To ensure that the USCG can identify vessel personnel with motor vehicle offenses related to the use of alcohol and drugs, OPA section 4101 requires anyone applying for a license, certificate of registry, or merchant mariners' document to provide a copy of their driving record obtained from the National Driver Registry. This requirement is intended to provide background information on potential vessel personnel with motor vehicle offenses related to the use of alcohol and drugs. Applicants must also submit to drug testing. Further, OPA section 4103 provides additional authority for the expeditious suspension of licenses and documents of merchant mariners suspected of alcohol or drug abuse. OPA section 4104 provides authority for the orderly removal or relief of a vessel master or individual in charge of the vessel suspected of being under the influence of alcohol or a dangerous drug. The inclusion of these provisions reflects the concern that alcohol or drug impairment are serious threats to safe vessel operation.

Section 4114 of the OPA also requires that new tank vessel manning standards be set, both for U.S. and foreign tank vessels. For U.S. tank vessels, licensed seamen are not permitted to work more than 15 hours in any 24-hour period, or more than 36 hours in any 72-hour period. Forthcoming regulations will designate the conditions under which tank vessels may operate with the autopilot engaged or the engine room unattended. Crew members also must be trained in maintenance of the navigation and safety features of the tank vessel. For foreign tank vessels, a USCG review will determine whether tank vessel safety practices are at least the equivalent of U.S. requirements. Tank vessels that do not satisfy this standard will be prohibited from entering U.S. waters. These new requirements, emanating from issues raised in the investigation of the *Exxon Valdez* spill, should lead to better trained and more well-rested crews on tank vessels.

Other Provisions

Q20. What oil pollution research and development efforts are mandated by the OPA?

- A. Section 7001 of the OPA requires that an interagency committee be established to coordinate

the establishment of a program for conducting oil pollution research, technology development, and demonstration. This program is specifically required by the statute to provide research, development, and demonstration in a number of areas, including:

- Innovative oil pollution technologies (e.g., development of improved tank vessel design or improved mechanical, chemical, or biological systems or processes);
- Oil pollution technology evaluation (e.g., controlled field testing and development of testing protocols and standards);
- Oil pollution effects research (e.g., development of improved fate and transport models);
- Marine simulation research (e.g., use and application of geographic and vessel response simulation models); and
- Simulated environmental testing (e.g., use of the Oil and Hazardous Materials Simulated Environmental Test Tank).

Q21. What provisions are included in the OPA to protect Alaska's Prince William Sound?

- A. Title V of the OPA contains several provisions aimed at preventing future spills in Prince William Sound. Specifically, the OPA: (1) authorizes the Prince William Sound Oil Recovery Institute in Cordova, Alaska; (2) establishes Oil Terminal Oversight and Monitoring Committees for Prince William Sound and Cook Inlet; (3) authorizes and appropriates funds for construction of a navigation light on Bligh Reef; and (4) requires all tank vessels in Prince William Sound to be under the direction and control of a pilot, who cannot be a member of the crew of the tank vessel, licensed by the Federal government and the State of Alaska. In addition, section 8103 of the OPA establishes a Presidential Task Force on the Trans-Alaska Pipeline System. The Task Force will conduct a comprehensive audit of the pipeline system (including the terminal in Valdez, Alaska) to assess compliance with applicable laws.

section 4202(a)(6) revises CWA section 311(j)(5) to require the owner or operator of an onshore facility that, because of its location, could reasonably be expected to cause "substantial harm" to the environment as the result of an oil discharge, to submit a response plan to the Federal government. The OPA revisions to CWA section 311(j)(5) also require the Federal government to review and either approve, or require amendments to, the response plans of tank vessels, offshore facilities, and those onshore facilities that could reasonably be expected to cause significant and substantial harm to the environment from a discharge. Under Executive Order 12777, the President has delegated the authority to review and approve response plans for non-transportation-related onshore facilities to EPA.

Q16. What deadlines does the OPA place on the preparation and submission of facility response plans?

- A. Section 4202(b) of the OPA establishes deadlines for the preparation and approval of facility response plans. Regulations addressing facility response plans are required to be promulgated 24 months after the date of enactment of the OPA (i.e., August 18, 1992). Owners and operators of affected facilities are required to prepare and submit their plans 30 months after the date of enactment (i.e., February 18, 1993). Section 4202(b) of the OPA also states that if the owner or operator of a facility required to submit a plan has not done so by the deadline, that facility must stop handling, storing, or transporting oil. Furthermore, a facility required to prepare and submit a response plan may not handle, store, or transport oil unless: (1) the plan has been approved (when plan approval is required); and (2) the facility is operating in compliance with the plan. EPA may authorize a facility which has submitted a plan to operate without approval for up to two years if the owner or operator certifies the availability of personnel and equipment necessary to respond to a worst case discharge or the substantial threat of such a discharge.

Q17. What types of information must facility response plans include?

- A. The OPA requires owners or operators of a facility to submit a response plan that is: (1) consistent with the NCP and Area Contingency Plans; (2) updated periodically; and (3) resubmitted for approval with each significant change. **Highlight 3** provides additional information that must be included in the facility response plan. In conjunction with the SPCC Phase II workgroup, the Facility Response Plans workgroup is making preparations to meet with trade associations representing the regulated community to provide information and seek comments on the possible contents, the level of

Highlight 3: Information That Must be Included in Facility Response Plans

OPA section 4202(a) requires that each facility response plan, at a minimum:

- Identify the individual with full authority to implement removal actions, and requires immediate communications between that individual, the appropriate Federal official, and those providing response personnel and equipment;
- Identify and ensure the availability of private personnel and equipment necessary to remove to the maximum extent practicable a worst case discharge (including a discharge resulting from fire or explosion), and to mitigate or prevent a substantial threat of such a discharge; and
- Describe the training, equipment testing, periodic unannounced drills, and response actions of persons on the vessel or at the facility, to be carried out under the plan to ensure the safety of the vessel or facility and to mitigate or prevent the discharge, or the substantial threat of a discharge.

detail, and guidance that may be useful for preparing response plans.

Q18. Does the OPA contain provisions that address tank vessel construction?

- A. Yes; a major spill prevention feature of the OPA is the requirement that tank vessels be equipped with double hulls. Specifically, under section 4115 of the OPA, newly constructed tank vessels must be equipped with double hulls, with the exception of vessels used only to respond to discharges of oil or hazardous substances. In addition, newly constructed tank vessels less than 5,000 gross tons are exempt from the double-hull requirement if they are equipped with a double containment system proven to be as effective as a double hull for the prevention of a discharge of oil. Existing tankers without double hulls are to be phased out by size, age, and design beginning in 1995, and are required to be escorted by two towing vessels in specially designated high-risk areas. Most tankers without double hulls will be banned by 2015.

Q19. What other OPA requirements are designed to prevent oil spills from tank vessels?

- A. The OPA contains additional provisions that are intended to prevent tank vessel spills from occurring, including: (1) strict licensing requirements; and (2) manning and safety standards.



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Office of
Solid Waste and
Emergency Response

Publication 9360.8-06FS
February 1993



Facility Response Plans

Office of Emergency and Remedial Response
Emergency Response Division 5202G

Quick Reference Fact Sheet

In 1990, Congress passed the Oil Pollution Act (OPA) in part to expand the scope of public and private planning and response activities associated with discharges of oil. The OPA amends §311 of the Clean Water Act (CWA) to augment Federal response authority, increase penalties for unauthorized spills, expand the organizational structure of the Federal response framework, and provide a greater emphasis on preparedness and response activities. CWA §311 requires the preparation of plans to respond to a worst-case discharge of oil, and sets forth specific requirements for development of such plans. These response plan requirements apply to an owner/ operator of any onshore facility that, because of its location, could reasonably be expected to cause substantial harm to the environment by a discharge of oil into navigable waters,¹ adjoining shorelines, or the exclusive economic zone (i.e., "substantial harm facilities"). Section 311 of the CWA requires that owner/operators of such "substantial harm facilities" must submit their response plans by February 18, 1993, or stop handling, storing, or transporting oil. CWA §311 also provides that a subset of "substantial harm facilities" (i.e., facilities that could reasonably be expected to cause significant and substantial harm to the environment by discharging oil, or "significant and substantial harm facilities") must have their plans approved by the Federal government.

The President has delegated the authority to regulate non-transportation-related onshore facilities to the Administrator of EPA. EPA is implementing the CWA §311 response plan requirements in a proposed revision to the Oil Pollution Prevention regulation (40 CFR Part 112). The purpose of this fact sheet is to provide general information on how EPA intends to implement the CWA §311 requirements. Specifically, the fact sheet addresses who must prepare plans, which plans must be approved, and what a facility response plan should contain.

WHO MUST PREPARE PLANS? ("SUBSTANTIAL HARM FACILITIES")

Under CWA §311, only certain facilities are required to prepare and submit response plans, i.e., those facilities that could cause substantial harm to the environment. EPA has proposed two ways in which a facility may be identified as posing substantial harm: (1) through a self-selection process; or (2) by determination of the Regional Administrator (RA).

For the self-selection process, §112.20(f)(i) of the proposed rule lists specific criteria to help owner/operators evaluate whether their facilities pose

substantial harm (see **Highlight 1**). The proposed rule also provides more detailed information to help owner/operators interpret these criteria to determine whether their facility should be regarded as a "substantial harm facility." For example, Appendix C of the proposed rule provides formulas to help evaluate whether a facility is located at a distance that could cause injury to an environmentally sensitive area or shut down operations at a public drinking-water intake. (NOTE: Facility owner/operators may also use an alternative formula provided that they document such use, as appropriate.) Appendix D of the proposed rule provides information on environmentally sensitive areas.

¹ Navigable waters are defined in CWA §502(7) and at 40 CFR 110.1 as waters of the United States, including the territorial seas. This definition includes, among other things, lakes, rivers, streams (including intermittent streams), mudflats, and wetlands.

Highlight 1 SELF-SELECTION CRITERIA

Under the proposed rule, a facility would fall under the "substantial harm" category if it meets at least one of the following criteria:

- The facility has a total storage capacity greater than or equal to 42,000 gallons and performs over-water oil transfers to or from vessels; OR
- The facility has a total storage capacity greater than or equal to one million gallons, and meets any one of the following conditions:
 - Does not have adequate secondary containment for each aboveground storage area;
 - Is located such that a discharge could cause "injury" to an environmentally sensitive area;
 - Is located such that a discharge would shut down a public drinking-water intake; or
 - Has had, in the past 5 years, a reportable spill greater than or equal to 10,000 gallons.

The owner/operator of any facility currently regulated by the existing Oil Pollution Prevention regulation may consult the proposed rule for details on the self-selection screening process. If the self-selection process does indicate that a facility poses a threat of "substantial harm" to the environment, the owner/operator would be required to prepare and submit a facility response plan to the appropriate EPA RA. CWA §311 requires that owner/operators of "substantial harm facilities" must submit their response plans by February 18, 1993, or stop handling, storing, or transporting oil.

Under the proposal, the RA also would have the authority to determine that a facility may cause substantial harm, regardless of the results of the self-selection screening process. As set forth in §112.20(b) of the proposed rule, the RA's determination would be based on factors similar to the criteria used in the self-selection screening process, as well as other site-specific characteristics and environmental factors.

IN ADDITION TO THE SELF-SELECTION PROCESS, THE RA MAY DETERMINE THAT A FACILITY POSES SUBSTANTIAL HARM.

Under the proposal, if an owner/operator determines that the facility does not have the potential to cause substantial harm, the owner/operator would have to complete the certification form contained in Appendix C of the proposed response plan rulemaking. This form would be maintained at the facility. In addition, if the self-selection process is completed using an alternative formula, the owner/operator would be required to notify the RA in writing and provide information on the reliability and analytical soundness of the alternative formula.

WHICH PLANS MUST BE APPROVED? ("SIGNIFICANT AND SUBSTANTIAL HARM FACILITIES")

In addition to the requirement to prepare response plans, CWA §311 establishes further requirements for a subset of facilities that could cause significant and substantial harm. CWA §311 requires that EPA must review and approve the response plans submitted for these facilities.

Under §112.20(f)(3) of the proposed rule, the RA would identify these "significant and substantial harm facilities" using a series of risk-based screening considerations. These considerations include factors similar to the criteria to determine substantial harm, as well as the age of the tanks, proximity to navigable waters, and spill frequency. Facilities would be notified in writing of their status as posing significant and substantial harm.

Under CWA §311, if EPA does not review and approve a "significant and substantial harm facility" plan by August 18, 1993, the facility must stop handling, storing, or transporting oil. However, the number of plans needing review may prevent RAs from approving all response plans by the statutory deadline. CWA §311 allows a "significant and substantial harm facility" owner/operator to seek Federal authorization to operate for up to two years after the plan has been submitted where the owner/operator certifies that he or she has ensured by contract or other approved means the availability of private personnel and equipment necessary to respond to a worst-case discharge.

Under §112.20(b) of the proposed rule, owner/operators who seek such authorization may submit to the RA a certification statement and proof that a written contractual agreement or other approved means is in place. Examples of "other approved means" may include:

SPILL PREVENTION (SPCC) PLANS AND FACILITY RESPONSE PLANS ARE DIFFERENT

The CWA §311 requirements to develop a response plan will affect many facilities that are already subject to the Oil Pollution Prevention regulation. This regulation, which has been in effect since 1973, applies to facilities that meet the characteristics set forth at 40 CFR §112.1 (see **Highlight 3**).

The owner/operator of any facility subject to the Oil Pollution Prevention regulation is required to prepare and implement an SPCC Plan. SPCC Plans focus on procedures to prevent and control oil spills. In contrast, the facility response plans required by CWA §311 are intended to focus on reactive measures, such as how facility personnel are to respond to a discharge. The response plan should be maintained as a separate document from the SPCC Plan and be easily accessible during an emergency.

Under CWA §311, certain facilities are required to submit only the response plan to EPA.

Highlight 3 **FACILITIES SUBJECT TO THE OIL POLLUTION PREVENTION REGULATION**

The Oil Pollution Prevention regulation applies to facilities with the following characteristics:

- **Facility Type:** Non-transportation-related on-shore facilities.
- **Oil Product Storage:** The total aboveground storage capacity at the facility is greater than 1,320 gallons (or greater than 660 gallons in a single container), or the total underground storage capacity is greater than 42,000 gallons.
- **Location:** Facilities that, because of their location, could reasonably be expected to discharge oil into the navigable waters of the U.S. or adjoining shorelines.

FOR MORE INFORMATION

For more information, please call the SPCC Information Line at (202) 260-2342, or the specific EPA Regional office. The mailing addresses for the offices and a map showing the geographic boundaries of the Regions are contained in the proposed regulation.

EPA Region 1
(617) 860-4361

EPA Region 2
(908) 321-6656

EPA Region 3
(215) 597-5998/1357

EPA Region 4
(404) 347-3931

EPA Region 5
(312) 886-6236

EPA Region 6
(214) 655-2270

EPA Region 7
(913) 551-5000

EPA Region 8
(303) 293-1788

EPA Region 9
(415) 744-1500

EPA Region 10
(206) 553-1090

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REGION III FACILITY RESPONSE PLAN COORDINATOR: Linda Ziegler

NOTE: REGION III FACILITY RESPONSE PLAN INFORMATION LINE (215) 597-9562

- Certification that the owner/operator has access to the necessary personnel and equipment;
- Active membership in spill organization that ensures adequate access to the necessary personnel and equipment; or
- Other specific arrangements approved by the RA upon the request of the owner/operator.

WHAT SHOULD A FACILITY RESPONSE PLAN CONTAIN?

As discussed above, CWA §311 requires that the response plan must address certain critical items. CWA §311 requires that the response plan:

- Be consistent with the National Contingency Plan and Area Contingency Plans;
- Identify a qualified individual having full authority to implement removal actions, and require immediate communication between that person and appropriate Federal authorities and responders;
- Identify and ensure availability of resources to remove, to the maximum extent practicable, a worst-case discharge;
- Describe training, testing, unannounced drills, and response actions of persons at the facility;
- Be updated periodically; and
- Be resubmitted for approval of each significant change.

To assist owners or operators in preparing response plans, Appendix G of the proposed rule includes a model facility response plan that addresses CWA §311 provisions in a comprehensive and well-organized manner. **Highlight 2** outlines elements of the model plan.

Under the proposal, the organization of the model plan and the information contained in it would be representative of the format and level of detail needed to address the required response plan elements in an acceptable manner. However, EPA recognizes that there may be many facilities with existing response plans. Therefore, owner/operators generally

Highlight 2 RESPONSE PLAN ELEMENTS

Under the proposed rule, elements of an effective response plan would include the following:

- Emergency Response Action Plan*
- Facility name, type, location, owner, operator information
- Emergency notification, equipment, personnel, and evacuation information
- Identification and evaluation of potential spill hazards and previous spills
- Identification of small, medium, and worst-case discharge scenarios and response actions
- Description of discharge detection procedures and equipment
- Detailed implementation plan for containment and disposal
- Facility and response resource self-inspection, training, and meeting logs
- Diagrams of facility and surrounding layout, topography, and evacuation paths
- Security (fences, lighting, alarms, guards, emergency cut-off valves and locks, etc.)

* A response plan would serve as both a planning and action document, and the action portion should be maintained as an easily-accessible, stand-alone section of the overall plan.

would not need to prepare a separate plan to comply with CWA §311 if they have already prepared a plan, provided that the original plan: (1) satisfies the appropriate requirements and is equally stringent; (2) includes all the elements described in the model plan; (3) is cross-referenced appropriately; and (4) contains an Action Plan for use during a discharge.

Although Spill Prevention, Control, and Countermeasure (SPCC) plans (i.e., prevention plans) and response plans are different, and should be maintained as separate documents, some sections of the plans may be the same. The proposed rule would allow the owner/operator to reproduce and use those sections of the SPCC Plan in the response plan.

Important FRP Definitions

Complex - a facility possessing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under section 311(j) of the CWA.

Contract or other approved means

- (1) A written contractual agreement with a response contractor that identifies and ensures the availability of the necessary personnel or equipment within appropriate response times;
- (2) A written certification by the owner or operator that the necessary personnel and equipment resources, owned or operated by the facility owner or operator, are available to respond to a discharge within appropriate response times;
- (3) Active membership in a local or regional oil spill removal organization that has identified and ensures adequate access through such membership to necessary personnel and equipment to respond to a discharge within appropriate response times in the specified geographic areas; or
- (4) Other specified arrangements approved by the Regional Administrator upon request of the owner or operator.

Maximum extent practicable - the limitations used to determine oil spill planning resources and response times for on-water recovery and shoreline protection and cleanup for worst case discharges from onshore non-transportation-related facilities in adverse weather. The appropriate limitations for such planning are available technology and the practical and technical limits on an individual facility owner or operator.

Permanently manifolded tanks - tanks that are designed, installed, and/or operated in such a manner that the multiple tanks function as one storage unit.

Worst case discharge

- (A) For an onshore non-transportation-related facility:
- (1) Single-tank facilities, the greater of:
 - (a) the volume of the single tank (plus 10% if adjacent to navigable waters); or
 - (b) the combined capacity of a group of aboveground storage tanks permanently manifolded together (plus 10% if adjacent to navigable waters).
 - (2) Multiple-tank facilities, the greater of:
 - (a) the capacity of the largest tank within a common secondary containment area or the largest tank within a single secondary containment area, whichever is greater. Plus the total aboveground capacity of tanks without adequate secondary containment; or
 - (b) for permanently manifolded tanks that function as one storage unit; the combined storage capacity of all manifolded tanks or the capacity of the largest single tank within a secondary containment area, whichever is greater. Plus the total aboveground capacity of tanks without adequate secondary containment. (Permanently manifolded tanks that are separated by internal divisions for each tank are considered to be single tanks and individual manifolded tank volumes are not combined).

- (3) Onshore production facilities, the greater of:
- (a) the capacity of the largest tank within a common secondary containment area or the largest tank within a single secondary containment area, whichever is greater. Plus the total aboveground capacity of tanks without adequate secondary containment and the production volume of the well with the highest output (forecasted output for exploratory wells producing under pressure); or
 - (b) for permanently manifolded tanks that function as one storage unit; the combined storage capacity of all manifolded tanks or the capacity of the largest single tank within a secondary containment area, whichever is greater. Plus the total aboveground capacity of tanks without adequate secondary containment and the production volume of the well with the highest output (forecasted output for exploratory wells producing under pressure); (Permanently manifolded tanks that are separated by internal divisions for each tank are considered to be single tanks and individual manifolded tank volumes are not combined).

Adverse weather conditions - the weather conditions that make it difficult for response equipment and personnel to cleanup or remove spilled oil, such as ice, extreme temperatures and weather-related reduced visibility

Vessel - applies to any type of watercraft (e.g., barges), other than a public vessel, which can be used as means of transportation on water.

Injury - is defined as having a measurable adverse change, either long or short term, in the physical or chemical quality or the viability of a natural resource. The change can result from direct or indirect exposure to a discharge of oil.

Source: 40 CFR Part 112.20 (2-17-93)

[illegible]

Facility Response Plans

SIG & SUB

- SIG & SUB Harm facilities are determined using a 3-tiered screening process, and;
- Will be notified by mail of the determination.

Facility Response Plans

Screens 1 & 2

- **Screen 1:**
 - The facility transfers oil over water and has a total storage capacity of greater than or equal to 42,000 gallons.
- **Screen 2:**
 - The facility meets any 2 of the 4 substantial harm criteria for facilities with a total oil storage capacity greater than or equal to 1,000,000 gallons.

Facility Response Plans

Screen 3

■ Screen 3:

- An evaluation of the following:
 - Lack of secondary containment
 - Proximity to navigable waters
 - Proximity to ESA's
 - Type of transfer operation
 - Total oil capacity
 - Proximity to drinking water intakes
 - Proximity to other EAC
 - Spill history
 - Tank age
 - Other site-specific characteristics as determined by the RA

FROP-10

Facility Response Plans

Operation Extensions

- SIG & SUB Harm facilities may operate up to 2 years after their plan has been submitted, provided the owner or operator has ensured, by contract or other approved means, the availability of:
 - A written contractual agreement with a response contractor; or
 - A written certification by the owner/operator that the necessary personnel and equipment, owned by the owner/operator, are available.
 - Active membership in a local or regional oil spill removal organization; or
 - Other specific arrangements approved by RA.

FROP-9

Facility Response Plans

Elements of a Model Plan

- Emergency response action plan
- Facility-specific information
- Emergency response information
- Hazard evaluation
- Discharge scenarios
- Worst case discharge scenario
- Discharge detection systems

FROP-10

Facility Response Plans

Important Definitions

Complex

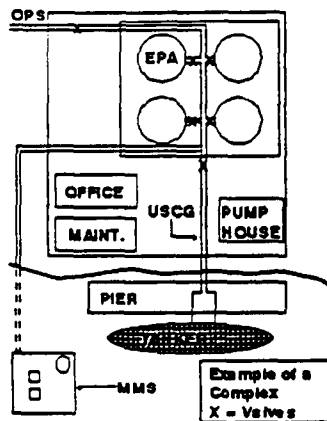
Contract or other approved means

Maximum extent practicable

Permanently manifolded tanks

Worst case discharge

Adverse weather conditions



Facility Response Plans

- Authority comes from Section 4202 of OPA.
- Requires facilities that have the **POTENTIAL** to cause **SUBSTANTIAL HARM** to the environment to prepare and implement a plan for responding to a **WORST CASE** discharge.

Facilities fall into 2 categories

Substantial Harm (SUB)

Significant and Substantial Harm (SIG & SUB)

Reviewed by EPA

Reviewed and approved by EPA

Facility Response Plans SUB Harm Determination

- Substantial Harm facilities are determined by:
 - Self-selection process
 - RA determination

PRP-1A

Facility Response Plans

- The RA has the authority to designate a facility as SUB Harm regardless of the results of the self-selection process.
- If a facility is not considered to be SUB Harm, the certification form in Appendix C of the proposed rule must be completed, signed and maintained at the facility as an attachment to the facility SPCC Plan.

PRP-4

Facility Response Plans
Elements of a Model Plan (cont.)

- Plan Implementation
- Self-inspection, training, & meeting logs
- Facility diagrams
- Security systems

FRP-12A

Facility Response Plans
Other FRP Facts:

- Facilities with existing response plans, generally do not need to prepare a separate plan provided that the existing plan:
 - Satisfies the appropriate requirements and is equally as stringent;
 - Includes all elements in the model plan;
 - Is cross referenced appropriately; and
 - Contains an action plan for use during a discharge

FRP-8

Facility Response Plans
Critical Elements of a Plan

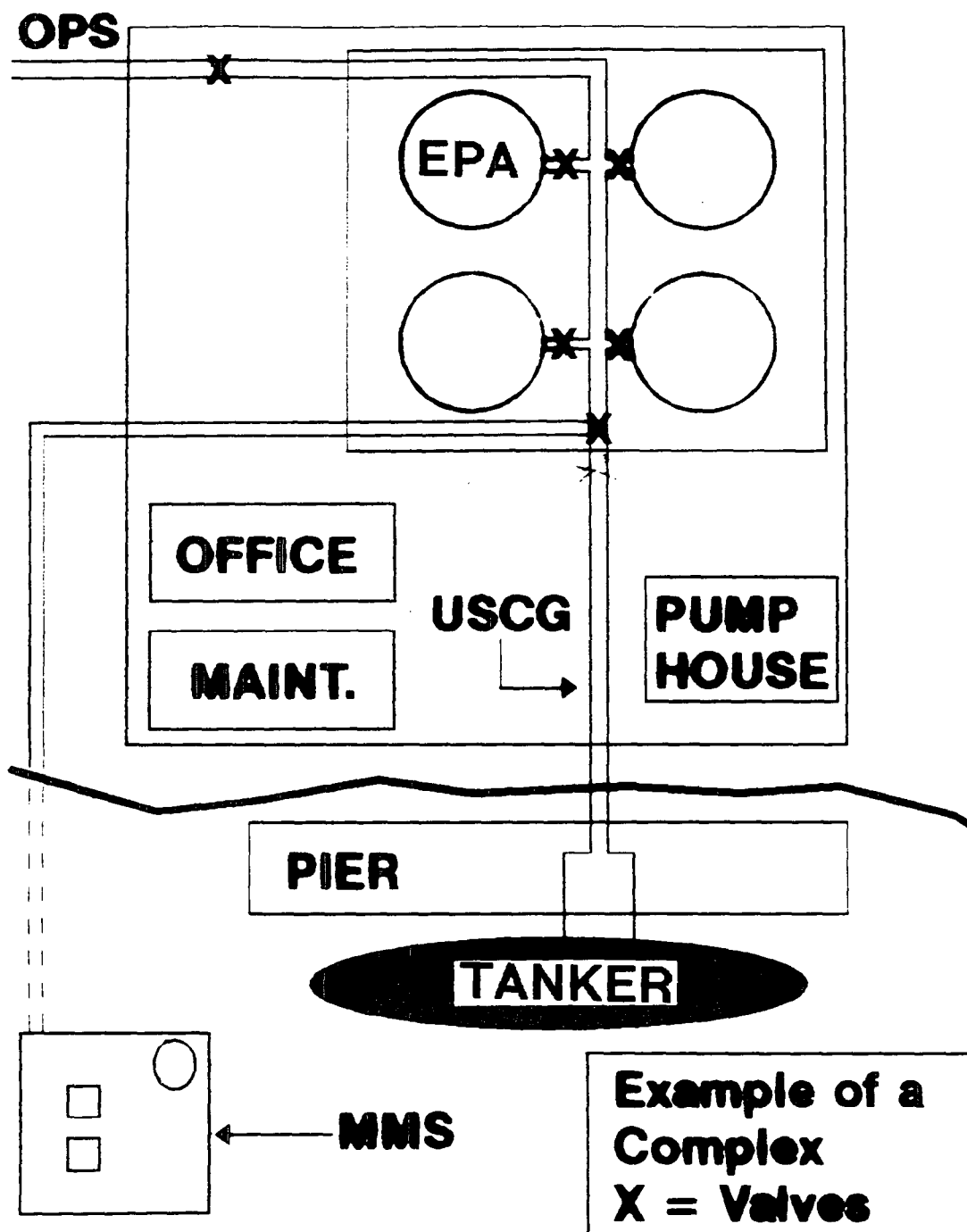
- Is consistent with the NCP, RCP, and ACP.
- Lists qualified individual with necessary authority.
- Identifies available resources.
- Provides for training, testing, drills and response actions.
- Updated when necessary.
- Resubmitted for approval when significant changes are made.

FRP-7

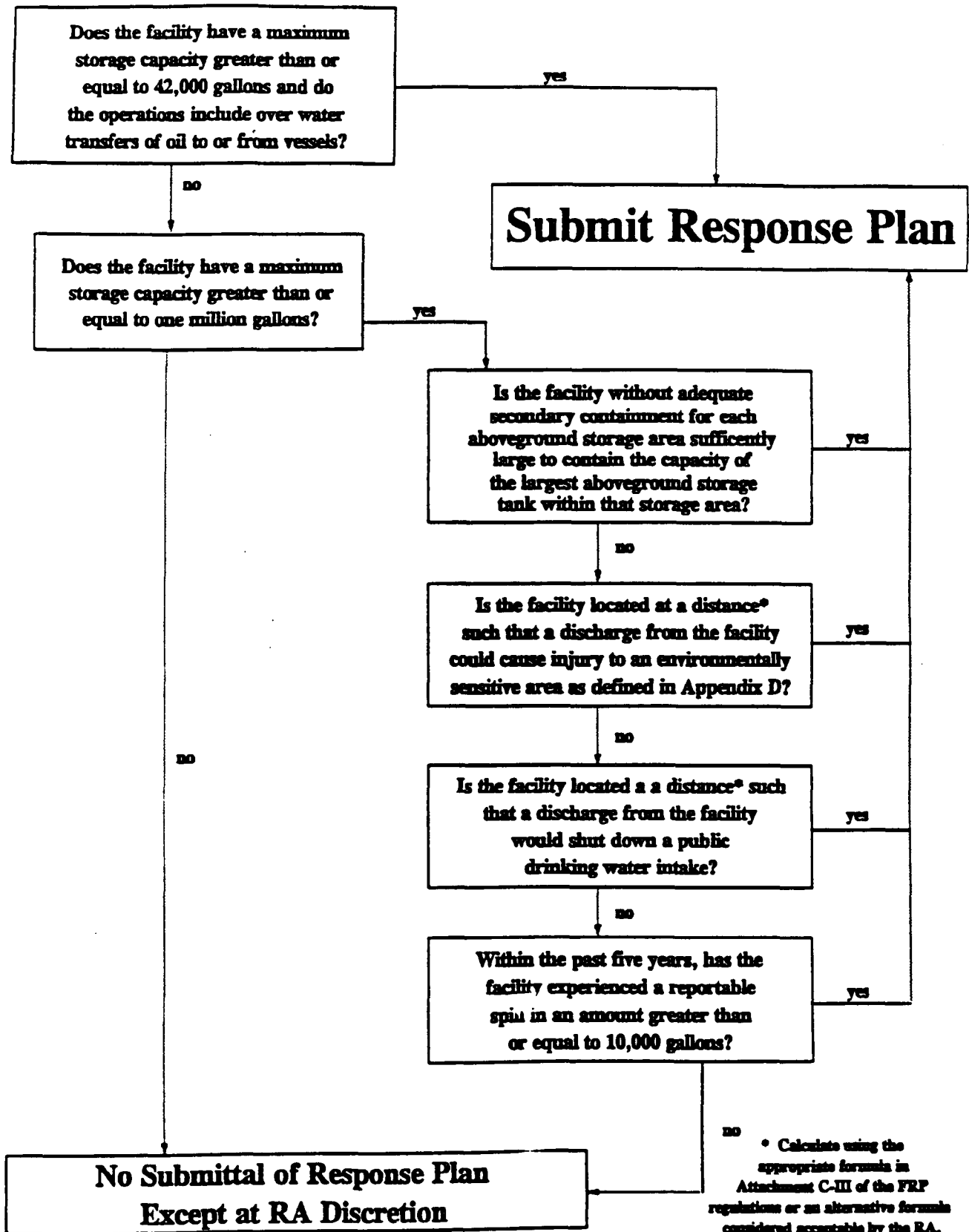
Facility Response Plans

Deadlines

- 2/18/93 - Facility Response Plans due.
- 8/18/93 - 2 year operating extensions required for facilities with proper certifications.
- 2/18/95 - Final approval required for all SIG & SUB facilities.



Flowchart for the Determination of Substantial Harm



CERTIFICATION OF SUBSTANTIAL HARM DETERMINATION FORM

FACILITY NAME: _____

FACILITY ADDRESS: _____

1. Does the facility have a maximum storage capacity greater than or equal to 42,000 gallons and do the operations include over water transfers of oil to or from vessels?
YES _____ NO _____
 2. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility without secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground storage tank within the storage area?
YES _____ NO _____
 3. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula* considered acceptable by the RA) such that a discharge from the facility could cause injury to an environmentally sensitive area as defined in Appendix D?
YES _____ NO _____
 4. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula* considered acceptable by the RA) such that a discharge from the facility would shut down a public drinking water intake?
YES _____ NO _____
 5. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and within the past 5 years, has the facility experienced a reportable spill in an amount greater than or equal to 10,000 gallons?
YES _____ NO _____
- * If an alternative formula is used, documentation of the reliability and analytical soundness of the alternative formula must be attached to this form.

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

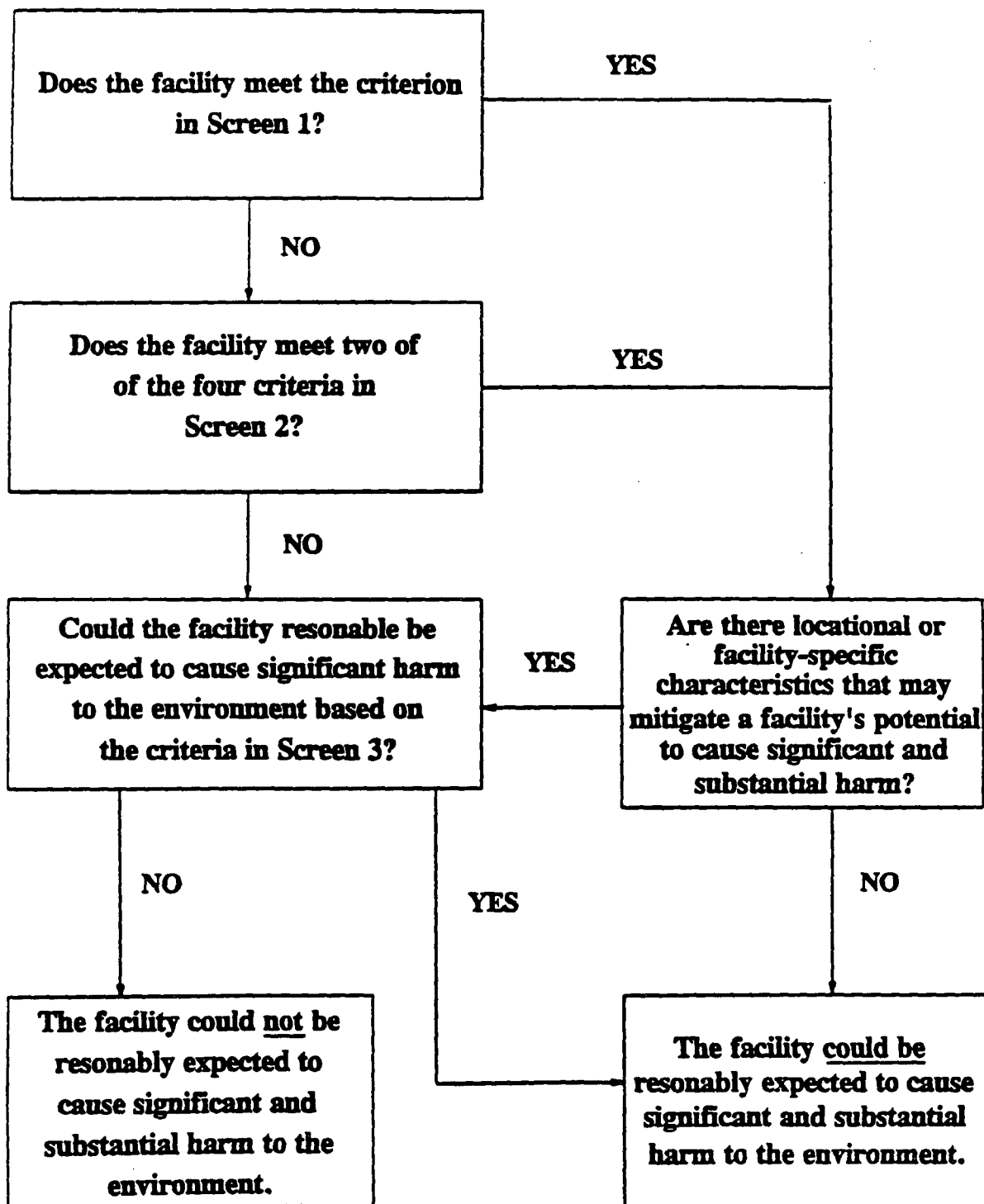
Signature

Title

Name (please type or print)

Date

FLOWCHART OF THE SIGNIFICANT AND SUBSTANTIAL HARM SCREENING PROCESS



Facility Response Plans

Screens 1 & 2

- Screen 1:
 - The facility transfers oil over water and has a total storage capacity of greater than or equal to 42,000 gallons.
- Screen 2:
 - The facility meets any 2 of the 4 substantial harm criteria for facilities with a total oil storage capacity greater than or equal to 1,000,000 gallons.

Facility Response Plans

Screen 3

■ Screen 3:

– An evaluation of the following:

- Lack of secondary containment
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- Proximity to ESA's
- Type of transfer operation
- Total oil capacity
- Proximity to drinking water intakes
- Proximity to other EAC
- Spill history
- Tank age
- Other site-specific characteristics as determined by the RA

APPENDIX G
FACILITY-SPECIFIC RESPONSE PLAN

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SPCC OUTREACH WORKSHOP EVALUATION

Your reactions to this outreach session are very important in planning and improving future sessions. Please feel free to offer any additional comments that you think will be helpful in enhancing the presentation.

CONTENT:

1. Which topics in this presentation were most valuable to you? Please explain.

2. Which topics were least valuable to you? Please explain.

3. To what extent did the presentation live up to your expectations?
_____very much _____to some extent _____not at all

4. Indicate the degree to which you feel the topics covered in this program helped meet your needs for information on the SPCC Program.
_____very much _____to some extent _____not at all

5. Would you recommend this presentation to others?
_____very much _____to some extent _____not at all

PROCESS:

1. Indicate the degree to which you feel the presentation was well organized (circle the appropriate number).

Very well 5 4 3 2 1 Not at all

Please explain.

2. Did the presentation provide ideas you can apply to your company to help attain SPCC compliance?

_____ usually _____ sometimes _____ never

Please explain.

ADDITIONAL COMMENTS



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