PB81-181372

BACKGROUND DOCUMENT

STANDARDS APPLICABLE TO OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES UNDER RCRA, SUBTITLE C, SECTION 3004

Standards for Preparedness and Prevention
(40 CFR 264, 265, Subpart C);
Standards for Contingency Plan and Emergency Procedures
(40 CFR 264, 265, Subpart D)

This document (ms. 1941.7) provides background information and support for EPA's hazardous waste regulations

U.S. ENVIRONMENTAL PROTECTION AGENCY
April 1980

TABLE OF CONTENTS

		Page
I.	Introduction	1
	A. Legislative Authority	1
	B. Key Definitions	3
II.	Rationale for Need to Regulate	5
	A. Damage Case Summaries	5
	B. Federal/State Precedents	10
III.	Synopsis of Proposed Regulation	13
IV.	Comment Analysis and Rationale for Chosen Action	16
	A. General Comments	16
	B. Subpart C - Preparedness and Prevention	21
	1. Comments Applicable to Entire Subpart	22
	2. §264.30 Applicability	23
	3. §264.31 Design and Operation of Facility	23
	4. Comments on Proposed §250.43-3(b)(2)	25
	5. §264.32 Required Equipment	25
	6. §264.33 Testing and Maintenance of Equipment	29
	7. §264.34 Access to Communications or Alarm System	30
	8. §264.35 Required Aisle Space	32
	9. §264.36 Special Handling for Ignitable or Reactive Waste	33
	10. §264.37 Arrangements with Local Authorities	34
	C. Subpart D - Contingency Plan and Emergency Procedures	37
	1. Comments Applicable to Entire Subpart	37
	2. §264.50 Applicability	40
	3. §264.51 Purpose and Implementation of Contingency Plan	40
	4. §264.52 Coutent of Contingency Plan	42
	5. §264.53 Copies of Contingency Plan	48
	6. §264.54 Amendment of Contingency Plan	54
	7. §264.55 Emergency Coordinator	56
	8. §264.56 Emergency Procedures	58
References		72
Attachment - Summary of Existing Laws and Regulations		73

I. Introduction

This document supports the final regulations for 40 CFR Part 264, Subpart C - Preparedness and Prevention, and Subpart D - Contingency Plan and Emergency Procedures, promulgated under the authority of Section 3004 of the Resource Conservation and Recovery Act. This document also supports the final interim status standards for similar provisions under 40 CFR Part 265. The interim status standards under Part 265 are, with minor modifications, essentially the same as the Part 264 standards. Differences between the two sets of standards are highlighted in the discussions which follow.

A. Legislative Authority

Section 3004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), as amended, 42 U.S.C. §§6901 *et seq.*, directs the EPA Administrator to promulgate regulations establishing such standards, applicable to owners and operators of facilities for the treatment, storage, or disposal of hazardous waste identified or listed under Subtitle C, as may be necessary to protect human health and the environment. Section 3004(3) provides that these regulations must include requirements respecting treatment, storage, or disposal of all hazardous waste received by the facility pursuant to such operating methods, techniques, and practices as may be satisfactory to the Administrator. Section 3004(5) requires these regulations to include provisions respecting contingency plans for effective action to minimize unanticipated

damage from any treatment, storage, or disposal of any hazardous waste.

RCRA specifically authorizes EPA to promulgate regulations requiring preparation of contingency plans for hazardous waste management facilities. Requirements for (1) preparedness and prevention measures to minimize the need for ever using contingency plans, and (2) emergency response measures to be taken during and after situations in which a contingency plan is implemented also are authorized by Section 3004 of RCRA. The Agency believes that such requirements are necessary adjuncts to contingency plans to ensure protection of human health and the environment. The Agency believes Congress intended that preparedness, prevention, contingency plans, and emergency response measures, be designed to minimize or avoid damages to human health and the environment, rather than merely to react to emergencies.

In addition to the Section 3004 mandates cited above, other passages in RCRA reinforce this interpretation of Congressional intent. RCRA Section 1002(b) states:

> "The Congress finds with respect to the environment and health, that:
>
> (5) hazardous waste presents...special dangers to health and requires a greater degree of regulation than does nonhazardous waste."

RCRA Section 1003 states:

> The objectives of this Act are to promote the protection of health and the environment...by:

(4) regulating the treatment, storage, transportation, and disposal of hazardous wastes which have adverse effects on health and the environment."

B. Key Definitions

"Contingency Plan" means a document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

[Comment: This revises the proposed definition, to clarify that the contingency plan is intended to be a document outlining the course of action to be taken in an emergency.]

"Facility" means all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).

[Comment: This revises the proposed definition to clarify that a facility is considered to be the entire group of hazardous waste management unit operations which may function simultaneously at a single location, rather than each operation individually. Thus, only one contingency plan need be prepared for all operations at a given facility.]

"Ignitable Waste" means a solid waste which has the characteristics specified in 40 CFR §261.21. [Flash point less than 140°F, etc.]

"Incompatible Waste" means a hazardous waste which is unsuitable for:

(1) Placement in a particular device or facility because it may cause corrosion or decay of containment materials (e.g., container inner liners or tank walls); or

(2) Commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes or gases, or flammable fumes or gases.

[See 40 CFR Part 265, Appendix V for examples.]

"Reactive Waste" means a solid waste which has the characteristics specified in 40 CFR §261.23 [e.g., explosives].

II. Rationale for Need to Regulate

A. Damage Cases

The following summaries of hazardous waste damage cases illustrate the need for preparedness and prevention measures, contingency plans, and emergency response procedures at hazardous waste management facilities. These cases are examples of the potential for explosions, fires, air emissions, and contamination of ground water and surface water associated with waste management activities.

(1) On the afternoon of December 8, 1977, a series of explosions and fires occurred at a hazardous waste treatment facility in New Jersey. The initial explosion was followed by between two and five additional explosions. The ensuing major fire lasted about 1-1/2 hours. During the episode approximately 12 storage tanks and two tank trucks exploded and/or burned. Facility personnel began fire fighting operations until the local Volunteer Fire Department arrived. Within a short time, seven local fire fighting units, with about 200 men, had responded to the alarm. Shortly thereafter, the New Jersey State Police arrived on the scene and assumed overall coordination of activities. Within two hours of the initial explosion, various Federal and State personnel were also on the scene. Evacuation of a nearby town was contemplated, but determined to be unnecessary.

Six men who were working at the facility were killed, and 12 were injured; all had been employed by various contractors who were doing specialized maintenance work on-site at the time. In addition, about 40 firemen were admitted to a local hospital for smoke inhalation and released after treatment.[1]

This incident points out the need for the owners or operators of facilities that handle ignitable or reactive waste to (1) employ rigorous preparedness and prevention measures, (2) prepare and file contingency plans with local response agencies, (3) inform local fire

and police agencies concerning the facility layout and the types of wastes handled, and (4) be prepared to assist local, State, and Federal authorities in making evacuation decisions.

(2) On July 25, 1978, in Bayou Sorrel, Louisiana, liquid waste from a tanker truck was pumped into a surface impoundment containing other waste. The new waste was incompatible with the in-place waste. A gas, hydrogen sulfide, was generated by the ensuing reaction. The tank truck driver was overcome and killed by the fumes.[2]

(3) In October 1974, a bulldozer operator was killed in an explosion at an industrial landfill in Edison Township, New Jersey. At the time of the explosion, he was burying and compacting several 55-gallon drums of unidentified chemical wastes. The victim died as a result of burns covering approximately 85 percent of his body.[3]

These incidents illustrate the need for employees to be in constant visual or voice contact with other employees who can provide or summon emergency assistance.

(4) A landfill in Juneau County, Wisconsin, has been the site of many fires involving wastes. Fires started when waste batteries shorted out and ignited surrounding combustible wastes. One such fire occurred on February 12, 1974, and was visible for three miles. Small explosions produced by the fire caused scraps of metal to strike an investigating police officer and his squad car.[4]

This incident points out the need for (1) fire fighting equipment at facilities, and (2) education of local authorities about potential hazards at facilities.

(5) On July 1, 1975, a driver was disposing of 2,000 gallons of industrial waste liquid in a landfill in Baltimore County, Maryland. When the driver opened the valve to allow the liquid to discharge into a depression atop an earth covered area of the fill, the discharging liquid began bubbling and forming a blue smoke. The smoke quickly streamed toward the truck and soon enveloped it, causing the driver to fall to the ground. The driver and several landfill operators

were taken to a hospital. The area was then evacuated and county fire fighters were summoned to clean up the liquid.[5]

This case again points out the need for facility evacuation plans and education of local authorities.

(6) In San Francisco, California, attempts to treat organic lead wastes resulted in alkyl lead intoxication of plant employees. Employees of firms in the surrounding area were exposed to an airborne alkyl lead vapor hazard. Toll collectors on a bridge along the truck route to the plant became ill from escaping vapors from transport trucks.[6]

This case illustrates that spills to water are not the only kind of releases from facilities, and that exposure of people outside the facility must be considered, as well as exposure to employees.

(7) In 1975, at Crisfield, Maryland, there was a waste holding pond that contained wastes such as arsenic, lead, nickel, chromium, and cyanides. The pond received 15,000 gallons of waste water per day, but was unlined. Testing by government personnel revealed that contamination of underground waters extended to a depth of 50 feet and a radius of 1,000 feet from the pond.[7]

This case illustrates the need to address ground-water contamination incidents in facility preparedness preparations.

(8) In October 1973, a New Jersey disposal firm was fined $24,000 by the Superior Court in Hackensack for spilling fish killing chemicals into a small creek in the Hackensack Meadowlands. The spill had occurred during the previous New Year's weekend from a truck parked on the company's premises. The company was in the business of hauling liquid wastes from chemical companies to landfills.[8]

(9) In Niagara County, New York, a manufacturing corporation for many years disposed of arsenic-containing wastes on its property. This resulted in the pollution of about 40 percent of the property with arsenic. The concentrations of arsenic in the soil are high enough that surface runoff picks up hazardous quantities of arsenic and carries it to nearby streams.[9]

(10) Sludge from a waste storage lagoon at a refining corporation spilled into the south branch of Bear Creek in Butler County, Pennsylvania, in 1968. The sludge flowed three miles downstream into the Allegheny River, killing an estimated 4.5 million fish.[10]

(11) The dike of a lagoon in Carbo, in Russell County, Virginia, containing an alkaline waste from a steam generating plant collapsed and released 400 acre-feet of fly ash waste into the Clinch River in 1967. Traveling at one mile per hour, the waste reached Norris Lake where it killed 216,200 fish and all organisms in a four-mile radius from its point of entry into the lake.[11]

These cases illustrate the need to consider discharges to soil and surface water in facility contingency plans since these events could affect human health or the environment.

While not directly related to waste management activities, the following cases illustrate the types of potentially serious problems that can develop at industrial facilities, of which waste management facilities are a subset.

(12) Residents were evacuated from more than 150 homes and eight people received hospital treatment on March 20, 1973, when an underground storage tank ruptured and sent a noxious and tear-provoking gas through an area more than a mile long in Chicago's South West Side. About 200 residents were asked to leave their homes in the area and stay at temporary shelters. Fumes containing sulphur monochloride acid spread through the neighborhood for four and one-half hours until firemen dropped 5,000 pounds of lime into the underground chamber, neutralizing the acid and shutting off the flow of gas.[12]

(13) In July 1974, lightning struck a powerline, igniting a large fire in a paint and herbicide manufacturing and storage facility in Alliance, Ohio. The on-scene coordinator from EPA's Region V called for local and county police to evacuate citizens downwind; later a shift in the winds at the site of the fire necessitated evacuation of 500 hospital patients. About a day later, the fire was extinguished and the air pollution hazard eliminated.[13]

(14) In March 1976, a 12-hour fire at a chemical plant in Ennis, Texas, sent fireballs from exploding drums over 200 feet high. About 500 nearby residents were evacuated when toxic fumes spread over the southern portion of the city. The local firemen who responded had been trained for several years for such an emergency and were prepared with proper clothing, equipment, and procedures.[14]

It is interesting to contrast this case with case (1) above. In this case local firemen had been trained for such an emergency and no injuries to firemen were reported. In case (1), local firemen were not well prepared, and about 40 firemen were overcome with smoke inhalation.

(15) An industrial firm in Cattaraugus County, New York, caused numerous spills, pipe leaks, and dumping of nitrogenous wastes which resulted in the contamination of both surface and ground waters. This also was the cause of two major fish kills in the Allegheny River.[15]

(16) In September 1974, an electrical transformer being loaded onto a barge fell from its loading sling, spilling 260 gallons of polychlorinated biphenyls (PCBs) onto the dock and into the waterway in Duwamish Waterway, Washington. The spiller handled the incident as a minor spill until a followup investigation by the Washington State Department of Ecology revealed that PCBs were involved.[16]

From these damage cases, it is apparent that there are potential dangers associated with fires, explosions, and releases at hazardous waste mangement activities. While facility operating personnel are primarily at risk, there is also the possibility of injury to nearby residents and the environment from toxic chemical emissions caused by releases, fires, or explosions. Thus, the Agency believes mandatory requirements are justified for preparedness, prevention, contingency plans, and emergency response at hazardous waste management facilities.

B. Federal/State Precedents

Several Federal and State laws and regulations require preparedness measures, contingency plans, and emergency responses at hazardous waste management facilities, or chemical manufacturing or storage facilities. These rules all have similar requirements for preparedness measures, contingency planning, and emergency response definition because of the hazardous nature of materials handled. Thus, they provide a precedent for regulatory activity in those areas. Examples of some of these provisions are discussed below. More details are provided in the attachment following this document.

Occupational Safety and Health Act

Under this Act, the Secretary of Labor has issued regulations requiring certain emergency responses in the event of an accidental release of vinyl chloride or a number of other carcinogens at facilities handling them. The procedures include:

- evacuation of the area affected
- decontamination
- medical surveillance of affected employees
- reports to OSHA

Clean Water Act

EPA regulations under Section 311 of the Clean Water Act require that owners or operators of certain facilities handling oil and oil products prepare a Spill Prevention, Control, and Countermeasures (SPCC) plan. As specified in the Clean Water Act, this plan is

intended to prevent discharges of oil into navigable waters and to contain these discharges if they occur. In the near future, EPA will promulgate regulations which extend these requirements to discharges of hazardous materials.

Federal Insecticide, Fungicide, and Rodenticide Act

Under this Act, EPA promulgated in 40 CFR Part 165, "Recommended Procedures for the Disposal and Storage of Pesticides and Pesticide Containers." The guidelines include:

- reports of accidents to EPA
- inspection for leakage
- accident prevention measures
- use of protective clothing and respirators, and
- written notice of potential hazards to local fire, police, and health agencies.

State Laws

In recent years, at least 10 States have enacted laws and regulations which pertain to preparedness, contingency plans, and emergency response at hazardous waste management facilities. These States are Arkansas, California, Connecticut, Iowa, Minnesota, Oklahoma, Oregon, Rhode Island, Texas, and Washington.

All 10 states require facility owners or operators to provide adequate equipment and necessary measures to prevent and extinguish fires. California and Rhode Island require the owner or operator to make arrangements with local fire departments to provide emergency services. Iowa and Minnesota require facility owners or operators to

implement remedial action after the detection of a potential threat to the ground water. Reporting requirements for emergency situations are:

State	Phone Report	Written Report
California	In 24 hrs.	In 30 days
Iowa	No specific time req.	No specific time req.
Minnesota	Immediately	Not required
Oklahoma	Not required	In 48 hours
Oregon	Immediately	Not required
Rhode Island	Immediately	Upon demand
Texas	In 24 hours	Not required

After a review of these existing* Federal and State laws and regulations, the Agency found that many of their concepts and requirements were applicable (directly or with modification) to contingency plans, and preparedness and response aspects of hazardous waste management facilities. The applicable concepts and requirements, together with lessons learned from damage cases and response to legislative intent, led to the proposed rules discussed in the next section.

*In the case of Minnesota's Hazardous Waste Management Rules, the Agency reviewed drafts of these rules prior to the EPA proposal in December, 1978. The Minnesota rules were subsequently promulgated in June, 1979.

III. Synopsis of Proposed Regulations

Contingency plan, preparedness and prevention, and emergency procedure requirements applicable to owners and operators of hazardous waste facilities were specified in §250.43-3 of the RCRA Subtitle C regulations proposed on December 18, 1978. These requirements also applied to owners and operators of facilities with interim status, as specified in proposed §250.40(c)(2)(ii).

Section 250.43-3(a) required the owner or operator to develop a contingency plan for each hazardous waste treatment, storage, or disposal facility. At a minimum, the plan was to follow the provisions of the Section 311, Spill Prevention, Control, and Counter Measures Plan (SPCC) of the Clean Water Act. The contingency plan, and any amended plan, was to be submitted to the Regional Administrator and to local fire, police, and health authorities. The plan was also to be submitted to EPA as part of the application for a facility permit. The contingency plan was required to include:

- arrangements made with local authorities*
- a list of personnel qualified to act as facility emergency coordinator
- a list of all emergency equipment
- an evacuation plan, and
- an outline of a training plan for familiarizing facility personnel with emergency procedures and equipment.

*Requirements with an asterisk(*) in the synopsis were proposed together with "Notes" which allowed variances under certain circumstances.

A facility emergency coordinator was required to be present at all times when the facility was in operation.

Section 250.43-3(b) contained facility preparedness and prevention requirements. Facilities were required to:

- be operated to minimize the likelihood of discharges, fires, or explosions.
- have an SPCC plan under §311 of the Clean Water Act
- have internal and external* communications systems
- have firefighting, spill control, and decontamination equipment* which was regularly tested and maintained
- maintain aisle space* to allow unobstructed movement of emergency equipment, and
- eliminate sources of ignition and prohibit smoking in operating areas.

Section 250.43-3(c) specified the duties of the facility's emergency coordinator regarding emergency response and recovery. These duties included:

- notifying facility personnel, local authorities, and the regional on-scene coordinator or the U.S. Coast Guard National Response Center, as appropriate, of imminent or actual emergency situations
- assessing the nature of discharges and possible hazards to local communities, and assisting Federal, State, and local officials to carry out mitigating actions
- ensuring that fires and explosions did not recur and spread to other wastes

*Requirements with an asterisk(*) in the synopsis were proposed together with "Notes" which allowed variances under certain circumstances.

- properly disposing of material resulting from an accident
- rejecting any new shipments of incompatible waste
- monitoring for leaks, etc.
- restoring emergency equipment before normal operations resume, and
- making a full report to EPA

IV. Comment Analysis and Rationale for Chosen Action

Commenters from many organizations submitted numerous comments on the proposed contingency plan, preparedness, and emergency response requirements. Some of the comments received were general and others were in response to specific provisions of the proposed rules. The following analysis discusses the general comments first, and then the comments on specific sections.

A. General Comments

1. Defer regulations until permit issued

Some of the comments were based on the premise that contingency plan, preparedness, and emergency response requirements should be negotiated when a permit is issued. Although they did not explicitly state this, one can assume that the commenters felt that these requirements should not apply during the interim status period. (By definition, a facility owner or operator with interim status has applied for a permit, but it has not yet been issued or denied.)

The Agency disagrees with this position. All the requirements are associated directly with protecting the environment and people. The Agency sees no reason to delay them until a permit is issued. In addition, most of the requirements are explicit and straightforward. Thus, they do not require negotiation with or interpretation by the Regional Administrator before they can be implemented.

However, the Agency recognizes that some of the proposed requirements, such as those accompanied by "Notes," might be

interpreted as requiring negotiation with EPA. To minimize the need for this during the interim status period, some of the final rules applicable during interim status are written differently than the general rules. These differences are highlighted in the following discussions.

2. Tailor Rules to Circumstances

Many commenters felt that the proposed contingency plan, preparedness, and emergency response provisions should be restructured to allow tailored requirements for particular circumstances. In the same vein, other commenters complained that the proposed provisions were overly restrictive for some types of facilities, too inflexible, or too specific. Similarly, another group of commenters claimed that the proposed rules were inappropriate for facilities which handled only "low" hazard waste, such as utility boiler fly ash or waste oil.

The Agency recognizes that there are different types of facilities handling many different kinds of wastes in widely differing circumstances with respect to climate, proximity to people, etc. In the proposed rules, the "Notes" following certain provisions provided some flexibility to account for these differences. In the final rules, these "Notes" have been incorporated into the regulations. Further, this concept of case-by-case determinations of appropriate requirements has been expanded, with many revisions throughout the final rules to provide greater flexibility.

An example is the proposed requirement: "The plan shall describe arrangements made with local police departments, hospitals, and emergency response teams to coordinate emergency services." This concept has been modified in the final rules by adding the clause: "as appropriate for the type of waste handled at the facility and the potential need for the services of these organizations" in §264.37.

Similarly, the proposed requirement: "Aisle space shall be maintained for unobstructed movement of personnel, and maintained so that fire protection equipment, etc., can be brought to bear on any area of facility operation in time of emergency." has been modified in the final rules by adding the clause: "unless aisle space is not needed for any of these purposes."

As a further example, the proposed requirement: "The plan shall include an evacuation plan for facility personnel..." has been modified in the final rules by adding the clause "where there is a possibility that evacuation could be necessary."

In addition, requirements specific to ignitable or reactive waste have been clearly identified in the final rules. However, it should be noted that fires and explosions are not the only kind of incidents these provisions are intended to cover. Any release of any hazardous waste is of concern to the Agency, and both the proposed and final rules reflect this.

3. On-site vs. Off-site Facilities

Several commenters felt that the proposed rules were aimed primarily at commercial off-site facilities. It was claimed that most manufacturing plants with on-site hazardous waste management facilities have safety departments, firefighting capabilities, and first aid stations. These commenters felt that the proposed rules should be revised to allow on-site facilities to develop contingency plans based on their specific needs on a site-by-site basis.

Upon review of the proposed rules, the Agency did not find any provisions that apply primarily to commercial off-site facilities. EPA agrees, however, that the rules should allow more flexibility for specific needs at both on-site and off-site facilities. As noted above, the Agency has recast the final rules to allow case-by-case determinations of the necessity for most requirements depending upon type of facility, type of waste handled, etc.

4. Guidelines vs. Regulations

One commenter felt that EPA should have a general regulation requiring a suitable facility contingency plan subject to approval by the Regional Administrator, but that all the other proposed rules should be guidelines amplifying that general requirement, rather than regulations.

The Agency does not agree with this comment. The contingency plan provisions are but one of a set of three in the proposed rules. The contingency plan provisions are considered to be the minimum

necessary for adequate response planning for hazardous waste management facilities. Therefore, the Agency believes that they should be regulations, rather than guidelines. However, the Agency believes the preparedness and prevention, and emergency response requirements are also important and independent of contingency plans, and should remain as enforceable regulations in their own right.

It should be noted that these regulations do not prescribe all situations which should be included in the contingency plans for various kinds of facilities. The Agency intends to provide additional guidance for specific cases later in technical manuals, etc.

5. Protection Inside vs. Outside Facilities

Comments to several sections of the proposed rules indirectly raised the following issue: should the RCRA preparedness and prevention, contingency plan, and emergency response provisions deal with the potential for damage to human health and the enviroment both inside and outside hazardous waste facilities?

RCRA's mandate to protect human health and the environment is not limited to dangers occurring outside hazardous waste management facilities. In fact, many of the damage cases cited earlier involved death or injury to facility operating personnel as well as threats to people outside the facility.

The Agency is concerned about the health and safety of facility personnel. The RCRA Section 3002 regulations for waste manifests and waste shipping container labeling and marking, and the Section 3004

waste analysis, training, inspection, and facility design and operating regulations, should go far in reducing hazards to facility personnel.

In addition, the RCRA contingency plan, preparedness, and emergency response regulations include steps to respond to both internal and external threats. In designing internal plans to respond to employee health threats, however, respondents must recognize that primary responsibility for protecting human health inside hazardous waste management facilities rests with the Occupational Safety and Health Administration of the Department of Labor.

In summary, the ambit of these RCRA preparedness, contingency plan and emergency response regulations includes activities both inside and outside hazardous waste management facilities. Facility owners and operators should understand that the Agency intends to interpret and enforce these regulations in this manner (see related discussion below at IV.C.1. at page 37).

B. Subpart D - Preparedness and Prevention

[Proposed §250.43-3(b)]

This section was proposed as paragraph (b) of §250.43-3, Contingency Plan and Emergency Procedures. In the final rules, it has been made a separate Subpart because:

(1) it contains explicit facility requirements (e.g., fire protection equipment, aisle space, etc.) which are independent of implementing a facility contingency plan;

(2) it is more logical to discuss preparedness and prevention aspects of facility operations before discussing planning for and response to emergencies which may or may not occur; and

(3) the placement of the paragraph in the proposed rule tended to interrupt the flow of discussion from contingency planning to implementing the contingency plan, i.e., emergency response.

Also, proposed §250.43-3(a)(3) concerning arrangements with local authorities has been moved to this Subpart, because such arrangements are related to preparedness.

1. Comments Applicable to Entire Subpart

Several commenters felt that some facilities do not present potential hazards requiring preparedness and prevention. They suggested the preparedness and prevention requirements should be applicable only "where appropriate".

These comments are similar to those discussed at IV. A. 2. above (page 17) under the title Tailor Rules to Circumstances. As indicated in that discussion, the Agency recognizes that there are different types of facilities handling many different kinds of waste in widely differing circumstances. Thus, the Agency has provided greater flexibility in the final rules to allow case-by-case determinations of appropriate requirements, where flexibility is warranted. Examples of this were given previously and need not be repeated here. As the following sections discuss the specific provisions for preparedness and prevention, the reader will see greater flexibility in most of the final requirements than in their proposed versions.

2. §264.30 Applicability

The Agency has added a section on applicability to each Subpart of the final rules to amplify the general applicability provisions in §264.1. Subpart C applies to the owners and operators of all facilities. Hence, the final rule states:

> §264.30 Applicability
>
> The regulations in this Subpart apply to owners and operators of all hazardous waste facilities, except as §264.1 provides otherwise.

The comparable final interim status standard is essentially identical:

> §265.30 Applicability
>
> The regulations in this Subpart apply to owners and operators of all hazardous waste facilities, except as §265.1 provides otherwise.

3. §264.31 Design and Operation of Facility

[Proposed §250.43-3(b)(1)]

One commenter suggested changing the proposed wording of this section to read: "Facilities shall be designed, operated, and constructed so that the likelihood of the most common type of accident and/or emergency, discharge, fire, or explosion harmful to human health or the environment is minimized." The commenter did not elaborate the reasons for this suggestion, or what "the most common type" of accident might be.

The Agency infers the suggestion to be that facility preparedness and prevention measures should be more limited than proposed. However, the proposed rule is essentially a performance standard which is intended to minimize potential harm to the environment or human health outside the facility from <u>any</u> type of accident or emergency. The Agency believes this is closer to the legislative intent of Section 3004 of RCRA than the more restrictive version suggested by the commenter. Further, the Agency believes it would be very difficult to decide what "the most common type" of accident might be at most facilities, and it would not be fully protective of human health and the environment to design and operate the facility to protect only against one type of emergency. Thus, the Agency has retained the proposed approach. However, the Agency will use a standard of reasonableness in interpreting the provision.

The word "maintain" has been added to the final rule to clarify that proper maintenance of equipment, as well as proper operation of equipment, is of concern to the Agency and is an element of an acceptable facility preparedness and prevention program. "Maintain" elaborates on the word "operation" and mirrors the specific requirements of §§264.33 and 264.56(h)(2).

The proposed rule has been modified to incorporate these points. The final rule states:

§264.31 <u>Design and operation of facility</u>

Facilities must be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or

any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

The words "designed" and "constructed" have been deleted from the final interim status standard provision because EPA does not expect the owner or operator of facilities already in operation to design or construct new structures to comply with the provision during the interim status period. The final interim status standard incorporates the points raised above and reads as follows:

§265.31 Maintenance and operation of facility

Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

4. Comments on Proposed §250.43-3(b)(2)

A number of commenters claimed that the proposed requirement that a facility covered by Section 311 of the Clean Water Act have a valid SPCC plan could constitute duplicative enforcement of other laws under RCRA. They recommended that the provision be deleted.

The Agency agrees with these comments for reasons discussed elsewhere (see Legal Support Document). The provision has been deleted from the final rule.

5. §264.32 Required Equipment

[Proposed §250.43-3(b)(3), and (5)]

In the final rule, the required equipment for facility preparedness and prevention is specified in one section, rather than the two sections in the proposed rules.

The proposed rules at §250.43-3(b)(3) required all facilities to have both internal and external emergency communications equipment. A "Note" provided a variance to the external communication system requirement but not for the internal system. Several commenters felt that not every size or type of facility would require an internal communications system. Thus, they recommended providing an exemption or variance for this requirement as well.

The proposed rules at §250.43-3 (b)(5) required that each facility have fire control, spill control, and decontamination equipment as well as an adequate water supply for fire equipment and special fire extinguishing equipment. A "Note" provided a variance for fire extinguishing and control equipment, but not for other requirements.

One commenter felt this provision was confusing and recommended a flexible standard to allow determinations on a case-by-case basis. The Agency agrees that there is sufficient variability in the types of waste handled at facilities that a variance is justified for this standard. Accordingly, the proposed rule has been revised.

The Agency agrees that there may be some facilities--such as those handling wastes with leaching potential but without immediate or acute hazard potential--which do not need an internal communications or alarm system to provide immediate emergency instruction to facility employees. Accordingly, the final rule adds a variance to this provision.

A commenter interpreted the proposed rule to require that each facility have an alarm, a telephone, and a hand-held, two-way radio or similar device, and felt that this duplication was unnecessary. It was the Agency's intent that each facility have at least one of these devices, but not necessarily all of them. The final rule has been written to clarify this point.

One commenter suggested adding a requirement that each facility have an alarm connected directly to the local health or public safety agency. EPA disagrees with this suggestion because:

(1) not all facilities handle acutely hazardous waste and thus do not need to immediately notify local authorities, and

(2) this requirement would be unnecessarily complex and burdensome.

A reference to State and local emergency response teams has been added to be consistent with changes to contingency plan requirements discussed in IV, C. 4. below at page 42.

Another commenter suggested that the provision be revised to require a back-up water supply for fire control equipment at each facility. The Agency has not adopted this suggestion in the final rule because some facilities may not need any water supply system for fire control equipment, much less a back-up system. Thus, in the Agency's opinion, the suggested requirement is not generally applicable, and would be unnecessarily burdensome.

The final rule adopts the suggestion for a variance to provide flexibility. The composite rule for facility equipment reads as follows:

§264.32 Required Equipment

All facilities must be equipped with the following, unless it can be demonstrated to the Regional Administrator that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning external emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

For some facility owners or operators with interim status, it may be several years before the Agency calls for submission of Part B of the permit application. To provide flexibility during the interim status period, and to avoid the need for facility owners or operators with interim status to conduct time-consuming negotiations with the Regional Administrator, reference to a variance demonstration has been deleted from the final interim status standards.

In effect, the Agency will allow facility owners or operators with interim status to determine for themselves whether a variance from the standard is applicable to them. However, they must be able to demonstrate the basis for their judgments to authorized EPA

officials during any facility inspections EPA may conduct during the interim status period.

Consequently, the final interim status standard for this provision reads as follows:

§265.32 Required Equipment

All facilities must be equipped with the following, unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning external emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

6. §264.33 Testing and Maintenance of Equipment

[Proposed §250.43-3(b)(6)]

The proposed rule required all fire, spill, and decontamination equipment to be tested, inspected, and maintained in satisfactory operating condition. No comments were received on this proposed rule, most likely because it makes eminently good sense and is in line with common practice, and applicable State and local laws.

The Agency modified the rule slightly in the final version to be consistent with the variance provisions added earlier to §264.32. Further, reference to equipment inspections was deleted since this aspect is now covered in the inspection provisions of §264.15. Also, upon review of the proposed rule, the Agency detected an oversight. The Agency believes that the testing and maintenance requirement should apply to facility communications or alarm systems, as well as fire, spill, and decontamination equipment, in order to provide adequate facility preparedness for emergencies. The final rule states:

§264.33 Testing and maintenance of equipment

> All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

The final interim status standard at §265.33 is identical to the above rule.

7. §264.34 Access to Communications or Alarm System

[Proposed §250.43-3(b)(4)]

The proposed provision required that employees have access to internal and external communication systems whenever hazardous waste was being handled. Several commenters felt there should be an exemption or variance to this provision where emergency situations are unlikely.

The Agency agrees with these comments for the same reasons discussed under IV B. 5. above at page 25. Also, §264.32 and §264.34

would be inconsistent unless a variance provision were added here. Thus, the proposed rule has been revised and the final rule reads as follows:

§264.34 Access to communications or alarm system

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless the Regional Administrator has ruled that such a device is not required under §264.32.

(b) If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation), or a hand-held two-way radio, capable of summoning external emergency assistance, unless the Regional Administrator has ruled that such device is not required under §264.32(b).

The final interim status standards for this provision have been modified, (by deleting "the Regional Administrator has ruled that") to be consistent with the interim status standards for §265.32. They now read as follows:

§265.34 Access to communications or alarm system

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under §265.32.

(b) If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation), or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under §265.32.

8. §264.35 Required Aisle Space

[Proposed §250.43-3(b)(7)]

The proposed rule required that adequate aisle space be maintained to allow unobstructed movement of personnel and fire, spill, and decontamination equipment. A "Note" accompanying the proposed rule provided a variance.

Nonetheless, one commenter suggested the provision should be applicable only "where appropriate." This was the intent of the "Note," which the commenter apparently misunderstood. In the final rule the Agency has incorporated the "Note" directly into the rule to avoid misinterpretation. The final rule reads as follows:

§264.35 Required aisle space

> The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless it can be demonstrated to the Regional Administrator that aisle space is not needed for any of these purposes.

For the reasons discussed in IV.B.5. above (page 25), reference to a variance demonstration has been deleted from the final interim status standard. The provision now reads as follows:

§265.35 Required aisle space

> The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

9. §264.36 Special Handling for Ignitable or Reactive Waste

[Proposed §250.43-3(b)(8) and (b)(9)]

The proposed rule (b)(8) required precautions to be taken to prevent accidental ignition of ignitable materials. Rule (b)(9) prohibited smoking while ignitable or reactive waste is being handled. One commenter felt that rule (b)(9) was redundant and unnecessary since a smoking precaution was already included in rule (b)(8).

The Agency agrees that the proposed rules (b)(8) and (b)(9) are closely aligned, and has combined them in the final rule to avoid redundancy. Further, the final rule highlights the fact that its provisions apply only to ignitable or reactive waste. The final rule reads as follows:

§264.36 Special handling for ignitable or reactive waste

> The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

The final interim status standard is identical to this provision and is located in §265.17(a).

10. §264.37 Arrangements with Local Authorities

[Proposed §250.43-3(a)(3)]

Familiarization of Local Authorities. Several commenters pointed out that facility owners or operators may offer to make arrangements to coordinate emergency services with local authorities, but they cannot require local authorities to enter into such arrangements, as the proposed rule implied. Other commenters felt that familiarization of local authorities may not be necessary in many situations, e.g., where the owner or operator can show that the facility has the equipment and personnel necessary to control emergencies. Another commenter suggested that the proposed rule be broadened to include written arrangements with State response agencies.

In the proposed rule, the Agency did not intend nor mean to imply that local authorities were required to enter into agreements against their will. RCRA's Subtitle C controls extend to local authorities only if they generate, transport, treat, store, or dispose of hazardous waste. The Agency does intend that facility owners or operators attempt to enter into agreements with local authorities where this is appropriate, and describe those arrangements, where successfully made and agreed to, in the contingency plan. The Agency agrees that State, as well as local, emergency response teams may be called in certain emergencies, and that prior agreements with these State agencies are desirable where appropriate.

Insurance Problems. One commenter claimed that familiarization of local authorities with the plant layout and waste handled at a facility, prior to their actually being called to the facility in an emergency, may create insurance problems, and other difficulties, but did not elaborate on this point.

The Agency doubts that any potential insurance problems are of great magnitude. It is difficult for EPA to imagine how familiarization of local authorities with a hazardous waste management facility could create insurance problems which could not be solved by appropriate arrangements. EPA assumes the insurance industry supports such familiarization actions, and EPA considers them as an important component of protecting the environment and human health outside the facility.

Familiarization is Ineffective. One commenter claimed that familiarization of local authorities is ineffective and useless, because of personnel turnover and higher priority concerns, and recommended that the proposed rule be deleted.

Personnel turnover is a fact of life in any organization but, in EPA's view, this is not sufficient justification to delete the requirement. Further, it is EPA's belief that public awareness of hazardous waste management activities is growing rapidly. Thus, local authorities will be more attentive to these activities in the future, and will give them higher priority.

In consideration of the above comments, the final rule states:

§264.37 Arrangements with local authorities

(a) The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

(1) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;

(2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

(4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(b) Where State or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

The final interim status standard at §265.37 is identical to the above.

C. Subpart D - Contingency Plan and Emergency Procedures

[Proposed §250.43-3(a) and (c)]

1. Comments Applicable to Entire Subpart

Delete Contingency Plan. Commenters felt that the proposed contingency plan provision was unnecessary and should be deleted because the Spill Prevention, Control, and Countermeasures (SPCC) plan required by the Clean Water Act is sufficient to fulfill contingency planning requirements for hazardous waste management facilities.

The Agency disagrees with this comment. The universe of facilities currently required to have a SPCC plan is not identical to the universe of hazardous waste facilities controlled under RCRA. Further, the proposed rules for RCRA contingency plans are not identical to the SPCC plan requirements and the SPCC plan is not an adequate substitute for RCRA contingency plan requirements. However, the two plans can be complementary. The modifications discussed in IV. C. 4. below (page 42) are designed to take advantage of this.

Ground-Water Contamination. Commenters were concerned that the proposed rules seemed to address only acute emergency situations, and argued that the contingency plan should include responses to be taken if ground-water contamination were detected.

The Agency agrees with this comment in principle. The release of any hazardous waste, whether sudden or non-sudden, is a potential threat to people or the environment and is of concern to the Agency.

Numerous documented damage cases concerning ground-water contamination associated with hazardous waste management facilities (see Ground-Water Monitoring Background Document) illustrate the seriousness of this problem.

However, the Agency has concluded that the ground-water monitoring regulations, rather than the contingency plan regulations, are the appropriate place to deal with contingency planning and response to ground-water contamination incidents. Ground-water monitoring is required only at certain types of facilities, whereas the contingency plan requirement applies to all types of facilities. Further, ground-water contamination incidents, while very serious in many cases, do not generally require an immediate (i.e., within minutes or hours) response, and therefore, do not fit the general perception of the type of incident to be covered by a contingency plan.

The final ground-water monitoring rules include requirements for evaluation of ground-water analyses, and advance planning for and a description of the response required where a potential ground-water problem is identified. Consequently, the Agency has adopted the commenters' basic suggestion, but in a different manner than proposed in the comments.

Implementation of the Contingency Plan. Several commenters suggested that a phrase should be added to a sentence in proposed §250.43-3(a)(1) to make that paragraph consistent with the proposed definition of "contingency plan" and the emergency response and

recovery provision at proposed §250.43-3(c)(1). The suggested language was (addition underlined): "The provisions of the plan shall be implemented immediately in the event of a discharge or release of hazardous waste from the facility which has the potential for damaging human health or the environment."

The Agency agrees that the comment has merit. It is not the Agency's intention that facility owners or operators invoke their contingency plan when small amounts of hazardous waste are released (e.g., very small spills or a leaking valve). Also, the Agency agrees that the RCRA regulations should be consistent. Consequently, in the final rule the sentence at issue has been revised to state:

> "The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment."

Further the definition of "contingency plan" and the response and recovery provisions proposed in §250.43-3(c) have been revised in the final rule to be consistent with this sentence.

Include "worst case." Commenters suggested that the contingency plan should also provide for a "worst case" accident or emergency, but did not elaborate.

It is difficult for EPA to respond to this comment without further details of what the commenters meant by the term "worse case." The damage cases discussed earlier in this document include some examples of acute emergency situations of substantial magnitude. The rules are structured to address such situations. Consequently, the

Agency believes there is no need to add "worst case" provisions to the final rules.

[Comment: The final rules for contingency plans and emergency procedures have been restructured for greater clarity. The following discussion of comments received on the proposed rules, and rationale for the final rules, follows the order of the final rules.]

2. §264.50 Applicability

The Agency has added a section on applicability to each Subpart of the final rules to amplify the general applicability provisions in §264.1. Subpart D applies to the owners and operators of all facilities. Hence, the final rule states:

§264.50 Applicability

The regulations in this Subpart apply to owners and operators of all hazardous waste facilities, except as §264.1 provides otherwise.

The comparable final interim status standard is essentially identical:

§265.50 Applicability

The regulations in this Subpart apply to owners and operators of all hazardous waste facilities, except as §265.1 provides otherwise.

3. §264.51 Purpose and Implementation of Contingency Plan

[Proposed §250.43-3(a)(1)]

The proposed rule required owners or operators to develop a contingency plan for each facility, and to implement the plan immediately in the event of a discharge or release of hazardous waste from the facility.

Multiple Facilities at One Site. One commenter asked whether the proposed rule meant that each "facility" (that is, each surface impoundment, landfill, etc.) at one location is required to have its own individual contingency plan. Several commenters suggested that one overall contingency plan should be adequate where multiple facilities are located on one site, or where waste generation and disposal are on the same site.

Apparently, the definition of "facility" in the proposed rule was not clear, and caused confusion. The Agency's intent is that one contingency plan be written for each facility, but that a facility may include several individual unit operations, such as one or more landfills, surface impoundments, etc., at a single location. The definition of "facility" in the final rule has been clarified to reflect that intention (see I.B. above at page 3). Further, the final rule allows merging the RCRA contingency plan requirements with an existing SPCC plan, or other emergency or contingency plan. This plan may apply to an overall manufacturing or waste generation plant, which could include a hazardous waste management facility at the same location.

In the final rule, the term "discharge or release" has been shortened to "release" to avoid redundancy. The words "to air, soil, or surface water" have been added to clarify that the RCRA contingency plan is intended to cover unplanned releases to any media. The final rule thus reads as follows:

§264.51 Purpose and implementation of contingency plan

(a) Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

The final interim status standard at §265.51 is identical to this provision.

4. §264.52 Content of Contingency Plan

[Proposed §250.43-3(a)(1), (3), (5), (6), (7), and (8)]

The proposed provisions cited above all pertained to what the contingency plan must contain. In the final rule, they have been grouped together for clarity.

Upon review of proposed §250.43-3(a)(8), the Agency determined that the definition of a training program to familiarize employees with emergency procedures and equipment was more appropriate to the Personnel Training regulations. Accordingly, these provisions have been moved to §264.16 in the final rule. (See the Personnel Training Background Document for further discussion.)

a. §264.52 - General Description

This new provision has been added to the final rules to provide a general description of what the contingency plan must contain, and to clarify that the actions necessary to comply with §§264.51 and

264.56 must be included in the plan. The final rule reads as follows:

§264.52 Content of contingency plan

(a) The contingency plan must describe the actions facility personnel must take to comply with §§264.51 and 264.56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

The final interim status standard at §265.52(a) is essentially identical to the above.

b. §264.52(b) - Spill Control Plan Amendment

Merge RCRA Contingency Plan with SPCC Plan. Many commenters suggested that, to avoid duplicate work for facility owners or operators, the proposed rules should be modified to allow the owners or operators to merge the RCRA contingency plan with their SPCC plan, or other in-place emergency plans for fires, explosions, or spills required by Federal, State, or local regulations.

The Agency agrees that these comments have merit. The Agency recognizes that existing spill or emergency plans may complement the RCRA requirements. Certainly, EPA has no desire to add unnecessary work to facility owners or operators coming under RCRA control. The final rules reflect this point.

Reference SPCC Plan. One commenter suggested adding to the regulation the Code of Federal Regulations reference for SPCC plans.

The Agency agrees with this comment, since it will make it easier for the regulated community to comply. The appropriate

references for SPCC plans (40 CFR Part 112 and 40 CFR Part 151) have been added to the final rule.

Conflict with U.S. Coast Guard Rules. One commenter claimed that the proposed RCRA rules for contingency plans would conflict with proposed U.S. Coast Guard rules for waterside facilities.

EPA has been coordinating with the U.S. Coast Guard regarding the shared responsibilities in protecting the environment and human health, or marine environment, from spills or discharges of hazardous substances or hazardous wastes under the authorities of the Resource Conservation and Recovery Act and the Ports and Waterways Safety Act, respectively. Both agencies agree that the RCRA Section 3004 regulations are sufficiently flexible regarding the requirements for contingency plans, preparedness, prevention, and emergency response that these regulations will not conflict with the forthcoming U.S. Coast Guard regulations for waterfront facilities (33 CFR Parts 126, 154, and 156).

As a result of all of the considerations discussed above, the final rule for §264.52(b) reads as follows:

> (b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with Part 112 or Part 151 of this chapter, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Part.

The final interim status standard at §265.52(b) is identical to the above.

c. §264.52(c) - Agreements with Local Authorities

[Proposed §250.43-3(a)(3)]

The Agency's response to comments on the proposed rule is discussed in Section IV.B.10. of this document under §264.37 - Arrangements with Local Authorities. The Agency intends that facility owners or operators attempt to enter into agreements with local authorities where this is appropriate, pursuant to §264.37, and describe those arrangements, where successfully made and agreed to, in the contingency plan. The final rule reflects this point, as follows:

> (c) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to §264.37.

The final interim status standard at §265.52(c) is essentially identical to the above.

d. §264.52(d) - List of Emergency Coordinators

Delete List of Emergency Coordinators. Several commenters suggested that the contingency plan need not list emergency coordinators for facilities where emergency situations are unlikely.

As noted earlier, the contingency plan is intended to minimize both sudden and non-sudden releases, as well as fires and explosions, which could present hazards to human health or the environment. It is difficult to predict the likelihood of an emergency--and in responding to an emergency, the Agency believes that there should be at least one employee in charge. Therefore, the Agency believes there

should be a list of emergency coordinators in the contingency plan, even if the list contains only one name, and has retained the proposed approach in the final rule.

List by Title. One commenter suggested listing emergency coordinators by title, rather than by name, to avoid amendments to the contingency plan.

The final rule allows the emergency coordinator(s) to be on call, rather than present on-site at all times. Both the office and home telephone numbers of the emergency coordinator(s) must be listed for the contingency plan to be effective. Listing by title will not avoid amendments to the plan. Thus, the proposed approach has been retained in the final rule.

List in Order of Responsibility. One commenter suggested that, where there is more than one emergency coordinator, they should be listed in the order they will assume responsibility as alternates to a primary emergency coodinator.

The comment has merit and supports the principle that there should be a single person in charge of emergency response. The suggestion has been adopted in the final rule, which states:

> (d) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see §264.55), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates. For new facilities, this information must be supplied to the Regional Administrator at the time of certification, rather than at the time of permit application.

During the interim status period, the provision regarding new facilities does not apply. Consequently, it has been deleted from the final interim status standard at §265.52(d), which now reads as follows:

> (d) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see §265.55), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator, and others must be listed in the order in which they will assume responsibility as alternates.

e. <u>§264.52(e) and (f) - List of Equipment and Evacuation Plan</u>

<u>Location of Equipment</u>. One commenter suggested the plan contain not only a list of all emergency equipment, but also: (1) its location, (2) a description and location of backup equipment, and (3) a discussion of the types of emergency equipment to be used for various emergencies.

Item (3) was already included in the proposed rule as "a description of the capabilities of all emergency equipment at the facility." The first item has merit and is adopted in the final rule. Information on the location of emergency equipment could be of crucial importance during an emergency. Item (2) would be covered in any event, since backup equipment would be listed if it is emergency equipment.

<u>Variance</u>. Commenters suggested a variance to the requirements for listing emergency equipment and preparing an evacuation plan, where emergency situations are unlikely.

As noted earlier, the contingency plan is intended to protect human health and the environment from non-sudden releases, as well as acute threats. It is difficult to predict the likelihood of an emergency of either type, given the many possible situations. The listing of emergency equipment should cover both aspects, and a variance is not justified. However, the evacuation plan requirement is applicable only to acute situations. Thus, the variance suggested for this requirement has been adopted in the final rules, which now read:

> (e) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.
>
> (f) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

The final interim status standards at §265.52 (e) and (f) are identical to the above.

5. §264.53 Copies of Contingency Plan

[Proposed §250.43-3(a)(2)]

The proposed rule required that copies of the contingency plan, and any amendments, be filed with the Regional Administrator, and local agencies that might be called upon to provide emergency services, as soon as it was prepared. Also, the contingency plan was to be

submitted to the Regional Administrator as part of the facility permit application.

Maintain but Don't Submit Contingency Plan. Many commenters argued that facility owners or operators should be required to maintain contingency plans on file, but not be required to submit plans and amendments to the Regional Administrator or to local emergency or health agencies. The reasons given were:

- SPCC plans are required to be available for inspection, but are not required to be submitted; RCRA plan requirements should be consistent with this.

- Contingency plans are amended frequently; it is burdensome to everyone to file amended plans.

- Local authorities may refuse to accept plans; therefore, the rule is unenforceable.

- Plans submitted to local authorities are relegated to obscure files; therefore, the rule is useless.

Similarly, some commenters felt that contingency plans should be filed with local authorities only when a release of hazardous waste would require their response or endanger those under their protection, or when a facility handles "extremely" hazardous waste.

The Agency agrees, in general, with what the commenters say about EPA involvement, but not with what they say about local agency involvement. The Agency believes that the contingency plan requirement is an important part of the overall RCRA Section 3004 standards, and that EPA should ensure that each facility has an acceptable plan. Because the Agency accomplishes this by requiring that a contingency plan be:

- prepared by each facility
- amended as necessary
- made available to EPA inspectors during on-site reviews, or to the Regional Administrator when requested, and
- submitted to EPA as part of the permit application,

the Agency agrees that plans and revisions need not be submitted routinely to EPA. This approach is consistent with SPCC plan requirements, which are being revised to require submission of plans to EPA only upon request of the Regional Administrator.

It is more important, however, that local authorities have an up to date facility contingency plan, whenever "their response may be required or those under their protection may be endangered," to paraphrase one of the comments.

Both the proposed and final rules use the phrase ". . . that may be called upon to provide emergency services." This phrase covers responses by local authorities both to the facility and to people outside the facility in an emergency situation originating inside the facility. Also, the phrase means that a contingency plan need not be filed with local authorities if the nature of the waste handled at a facility or internal emergency response capabilities at the facility are such that local authorities will not be called upon to provide services either to the facility or to people outside the facility.

The contingency plan must be amended in the following cases:

- revisions to applicable regulations (interim status)
- revisions to the facility permit (permitted status)

- failure of the plan in an emergency
- changes in the facility design, construction, operation, maintenance, or other circumstances that materially increase the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents or change the response necessary in an emergency
- changes in the person(s) qualified to act as facility emergency coordinator
- changes in the emergency equipment at the facility

The Agency believes all these reasons for plan amendment are important and that local authorities, where appropriate, have a need to know about these changes. The first four cases could involve significant amendments to a facility's contingency plan, but such amendments should occur infrequently. The last two cases may occur more often, but the change and notification requirements are not burdensome.

The proposed rule required facility owners or operators to file contingency plans with local authorities. It did not require these authorities to accept them. The Agency believes the great majority of local authorities are responsible and competent and that they rarely will reject facility plans or relegate them to obscure files. Nevertheless, a facility owner or operator will have complied with the rule if he can document in the operating record that he submitted a contingency plan to local authorities who may be called upon to provide emergency services, and that they refused to accept it.

Confidential Information. Several commenters claimed that facility contingency plans frequently contain confidential information

which companies would insist not be maintained in public files. Therefore, the commenters felt contingency plans should not be submitted to EPA (or by extension, to local authorities) but, rather, maintained on the facility premises open to EPA inspection.

The contingency plan must be submitted to EPA with Part B of the permit application under 40 CFR Part 122, and will become a condition of any permit issued. The permit regulations state that permit-related information, asserted to be confidential at the time it is submitted, will be disclosed by EPA only in accordance with the procedures in 40 CFR Part 2. Because the contingency plan will be part of the permit, portions of contingency plans asserted to be confidential will be available to the public only in accordance with 40 CFR Part 2.

As stated earlier, the Agency believes that where appropriate to protect human health and the environment in emergencies, it is vital that local authorities have up-to-date facility contingency plans in their possession. A facility's contingency plan need not contain details of proprietary processes or operations. For this reason, the Agency does not believe that contingency plans often, if ever, need to be confidential.

Insufficient Time for Plan Submission. A few commenters stated that: "Requiring the submittal of an SPCC plan as part of a [RCRA] permit application is unreasonable, since the development of an adequate and effective SPCC plan may require a significantly greater

period of time than available between promulgation of the [RCRA] regulations and submission of a [RCRA] permit application."

These comments were made before the RCRA permit rules were proposed on June 14, 1979. These proposed rules set up a two-part permit application. Submission of the Part A permit application to EPA is required to qualify for interim status. Part A must be submitted within six months after promulgation of the RCRA Section 3001 regulations. Part B of the permit application is to be submitted to EPA upon request at a later date. The facility contingency plan must be submitted with Part B, but is not required for Part A. Further, as noted above, the RCRA contingency plan may be merged with an existing SPCC plan, but it is not a requirement in the final rule that an SPCC plan be submitted as part of a RCRA permit application.

The contingency plan must include:

(1) actions to be taken in response to fires, explosions, or releases

(2) where appropriate, a description of arrangements agreed to by local agencies to provide emergency response services

(3) a list of emergency coordinators

(4) a list of emergency equipment at the facility, and

(5) where appropriate, an evacuation plan.

The Agency believes a facility owner or operator should be able to prepare a contingency plan meeting the above requirements within the six-month period between regulation promulgation and effective date.

Consequently, each facility owner or operator is required to have a contingency plan on the effective date of these regulations, and to submit it to appropriate local authorities, even though it is not required to be submitted to EPA until a later date, with Part B of the permit application.

In consideration of the above points, the final rule states:

§264.53 Copies of contingency plan

A copy of the contingency plan and all revisions to the plan must be:

(a) Maintained at the facility; and

(b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

The final interim status standard at §265.53 is identical to the above.

6. 264.54 Amendment of Contingency Plan

[Proposed §250.43-3(a)(2)]

A part of proposed paragraph (a)(2) concerned plan amendments. This provision has been restructured and made a separate rule. The proposed term "changed circumstances" has been deleted in favor of the more explicit term "revisions to the facility permit." Requirements for plan amendments, when emergency coordinators and facility equipment are changed, were omitted from the proposed rule through Agency oversight. These elements have been added to the final rule. (See related discussions under IV.C.5. above, at page 48.)

The proposed rule required amendment of the contingency plan when regulations were changed. The Agency has retained this requirement for the interim status standards in Part 265. However, the Agency has determined that this requirement is not appropriate for permitted facilities. In this case, amendments to contingency plans, along with other changes to facility operations which result from changes to regulations, should take place in concert with the periodic review and revision of the facility's permit. The final rule for Part 264 reflects this point, and the other points made above, as follows:

§264.54 Amendment of contingency plan

The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

(a) The facility permit is revised;

(b) The plan fails in an emergency;

(c) The facility changes--in its design, construction, operation, maintenance or other circumstances--in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

(d) The list of emergency coordinators changes or;

(e) The list of emergency equipment changes.

During the interim status period, there are no facility permits and, thus, no revisions to permits. Consequently, this provision is deleted in the final interim status standard, which now states:

§265.54 Amendment of contingency plan

The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

(a) Applicable regulations are revised;

(b) The plan fails in an emergency;

(c) The facility changes--in its design, construction, operation, maintenance or other circumstances--in a way that materially increases the potential for fires, explosions, or releases of hazardous waste, or hazardous waste constituents, or changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

7. §264.55 Emergency Coordinator

[Proposed §250.43-3(a)(4)]

The proposed rule required that, at all times when the facility was in operation, there be at least one person present with the responsibility of coordinating all emergency response measures.

Emergency Coordinator On Call Vs. On-Site. A great many commenters felt it was unnecessary and burdensome for an emergency coordinator to be present at all times when a facility is in operation, as the proposed rule required. Some commenters pointed out that "in operation" can be interpreted to include passive or automated situations, such as storage in tanks or surface impoundments, or "off periods," such as evening hours when no activities are ongoing. Many commenters suggested that the proposed rule should include a variance where emergency situations are unlikely to develop, or that the rule

be modified to allow an emergency coordinator to be on call, rather than present on-site.

Upon review of the points raised above, EPA agrees that there are many situations associated with hazardous waste management, such as those noted above, where the facility emergency coordinator's presence on-site is not essential. However, the Agency believes an emergency coordinator should at least be available (on call) to respond immediately to emergency situations at the facility by giving phone instructions to local authorities or facility personnel, and by being able to be on-scene within a short period of time. This arrangement should impose no undue burden.

Emergency Coordination Team. Several commenters felt that no one person could be cognizant of, and responsible for, all the duties of the emergency coordinator specified in the proposed rule. They suggested the rule be modified to allow an "emergency coordination team" under management supervision.

The Agency recognizes that the emergency coordinator's duties are manifold, and fully expects that many people with different disciplines will be required to assist the emergency coordinator in fulfilling these duties. However, based on analysis of past emergencies, the Agency feels strongly that there must be a single person in charge during an emergency with the responsibility and necessary authority to direct response measures. A "team" approach dilutes responsibility and authority and can lead to divisiveness or confusion

under stress. Consequently, the Agency disagrees with these last comments and has retained the proposed approach in the final rule. However, the final rule does not preclude the use of a response team, provided a single person has central responsility over it.

Based on the considerations discussed above, the final rule reads as follows:

§264.55 Emergency coordinator

> At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time), with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

The final interim status standard at §265.55 is identical to the above.

8. §264.56 Emergency Procedures

[Proposed §250.43-3(c)]

a. General Comments Applicable to Entire Section

One commenter felt that the proposed list of requirements for the facility emergency coordinator was very extensive and confusing. It was recommended that the requirement be restructured to clearly delineate those actions which are required immediately upon discovery of an emergency from those that are required after the emergency has been brought under control.

The Agency believes this is an excellent suggestion. The proposed rule has been restructured to specify, in step-by-step fashion, what must be done: (1) immediately upon discovery of an emergency, (2) during the emergency control phase, and (3) immediately following attainment of control.

Another commenter felt that occasional minor spills that might occur at facilities would not affect the environment or human health outside the facility. Therefore, it was suggested that the rule should require notifying the regional on-scene coordinator or the National Response Center only if a release, fire, or explosion has the potential for damaging the environment or human health outside the facility.

The Agency agrees that the need for immediate notification of those outside the facility may vary in accordance with different types and levels of incidents. Thus the final rule has been restructured to require an evaluation of potential impacts immediately followed by appropriate notifications.

The discussion which follows tracks the new format of the final rule, which results from adopting these suggestions. The title of the section has been changed to read "Emergency Procedures," since this is more descriptive of its content and is consistent with the proposed (and final) section title.

b. §264.56(a) Warn Employees and Summon Help

[Proposed §250.43-3(c)(2) and (c)(3)]

No comments were received on proposed rules (c)(2) and (c)(3).

The Agency believes the first duty of a facility emergency coordinator (or his designee--see discussion under IV.C.7.) in any imminent or actual emergency situation is to warn facility operating personnel, since they are likely to be the first group of people exposed to danger. Second, appropriate State or local emergency response agencies should be called in, if their assistance is needed to cope with the emergency inside (or outside) the facility. Accordingly, proposed rules (c)(2) and (c)(3) have been combined in the final rule and placed at the beginning in Paragraph (a), which reads as follows:

§264.56 Emergency procedures

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

(1) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(2) Notify appropriate State or local agencies with designated response roles if their help is needed.

The final interim status standard at §265.56(a) is identical to the above.

c. <u>§264.56 (b) Evaluate Nature and Extent of Emergency</u>

[Proposed §250.43-3(c)(5)]

No comments were received on proposed rule (c)(5).

The Agency has moved the rule, after minor modification, to second in the emergency procedure sequence because the facility's emergency coordinator needs to know the character and extent of any release, fire, or explosion to guide further actions. The final rule reads as follows:

> (b) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount and areal extent of any released materials. He may do this by observation or review of facility records or manifests, and, if necessary, by chemical analysis.

The final interim status standard at §265.56(b) is identical to the above.

d. <u>§264.56 (c) Assess Hazards</u>

[Proposed §250.43-3(c)(6)]

No comments were received on proposed rule (c)(6).

The Agency moved this rule, after minor modifications, to third in the emergency procedure sequence. The Agency believes the next task of the facility's emergency coordinator (after warning employees, summoning help if needed, and determining the nature and extent of the emergency) is to assess possible direct and indirect hazards to human health or the environment. The final rule reads:

(c) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

The final interim status standard at §265.56(c) is identical to the above.

e. <u>§264.56 (d) Notify Authorities</u>

[Proposed §250.43-3(c)(1), (c)(4), and (c)(7)]

Proposed rule (c)(1) dealt with notification of the regional on-scene coordinator or the National Response Center. Rules (c)(4) and (c)(7) dealt with notifying and assisting local agencies if evacuation of local areas might be advisable. A commenter on rule (c)(1) felt that reference to the entire proposed §250.37 for reporting would result in confusion and unnecessary paperwork, since parts of proposed §250.37 were not relevant to releases at hazardous waste management facilities. No comments were received on rules (c)(4) or (c)(7).

The Agency agrees that parts of proposed §250.37 are inapplicable able to facility emergencies. To avoid confusion, the Agency has deleted the reference to proposed §250.37 and has transferred the applicable notification requirements from proposed §250.37 to this section.

Since proposed rules (c)(1), (c)(4), and (c)(7) all dealt with interactions with local, regional, or national officials in the event of potential threats to the environment and human health outside the facility, the Agency has combined them in §264.56(d) of the final rule.

Clearly, an assessment by the facility emergency coordinator that evacuation of local areas may be advisable has first priority. Thus, notification of local authorities of this assessment is placed first in the paragraph. In any event, the Agency believes the facility emergency coordinator should make a telephone report of any condition which threatens the environment or people outside the facility to the regional on-scene coordinator or the National Response Center, whether or not possible evacuation of local areas may be involved. This requirement is placed second in the final rule.

References to "local communities" or "local residents" in the proposed rule have been changed in the final rule to the more general "local areas" or "human health." This change resulted from comments discussed earlier, which claimed that the proposed rules were aimed primarily at commercial, off-site facilities. The Agency recognizes that many facilities may be located on-site in congested industrial areas. Thus, there may be situations where evacuation of workers at nearby industrial plants may be advisable, as well as evacuation of residents of local communities.

As a result of all these points, the final rule reads:

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:

(1) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

(2) He must immediately notify either the government official designated as the on-scene coordinator for that geographical area (in the applicable regional contingency plan under Part 1510 of this Title), or the National Response Center (using their 24-hour toll-free number, 800/424-8802). The report must include:

(i) Name and telephone number of reporter

(ii) Name and address of facility

(iii) Time and type of incident (e.g., release, fire)

(iv) Name and quantity of material(s) involved, to the extent known;

(v) The extent of injuries, if any; and

(vi) The possible hazards to human health, or the environment, outside the facility.

The final interim status standard at §265.56(d) is identical to the above.

f. <u>§264.56 (e) Limit Spread of the Emergency</u>

[Proposed §250.43-3(c)(8)]

No comments were received on proposed rule (c)(8), which dealt with the common sense requirement that the facility emergency coordinator take all reasonable measures necessary to ensure that fires

and explosions do not recur or spread to other parts of the facility. The Agency has slightly modified this requirement in the final rule to clarify that this activity should take place during the emergency response phase. Further, the word "occur" has been added to cover cases where fires or explosions have not yet occurred during an emergency, but might occur unless appropriate actions are taken, such as stopping processes and operations, etc. The final rule reads:

> (e) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

The final interim status standard at §265.56(e) is identical to the above.

g. <u>§264.56 (f) Monitor for Leaks, etc.</u>

[Proposed §250.43-3(c)(11)]

No comments were received on proposed rule (c)(11), which required the facility emergency coordinator to monitor for leaks, pressure buildup, etc., if operations were shut down in response to an emergency. Again, the Agency believes this is a common sense requirement intended to prevent further problems, as "domino-effects," if operations are shut down in an emergency. However, in logical sequence, this requirement should be placed immediately after the requirement that operations be shut down in certain circumstances. Thus, it has been moved up in the final rule, and now reads:

(f) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

The final interim status standard at §265.56(f) is identical to the above.

h. <u>§264.56 (g) Properly Manage Residues</u>

[Proposed §250.43-3(c)(9)]

No comments were received on proposed rule (c)(9).

Given the nature of wastes handled at hazardous waste management facilities, it seems prudent to the Agency to assume that the residue materials from an emergency are hazardous waste, unless they are shown not to be by EPA test protocols. In most cases, these residue materials will be unconfined and available for release to the environment. Thus, the Agency believes it is imperative to collect and properly treat, store, or dispose of materials resulting from discharges or accidents at hazardous waste management facilities immediately following control of these emergencies.

The final rule reflects these points, and reads as follows:

(g) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminanted soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

The final interim status standard at §265.56(g) is identical to the above.

i. <u>§264.56 (h) and (i) Cleanup; Notification of Start-up</u>

[Proposed §250.43-3(c)(10) and (c)(12)

Proposed rule (c)(10) required the facility's emergency coordinator to ban acceptance at the facility of any waste incompatible with material released during an emergency until cleanup procedures were completed, emergency equipment was restored to pre-accident conditions, and the affected area was declared safe by EPA, State, or local officials. One commenter felt that the decision that the facility could safely resume operations should be the responsibility of the facility emergency coordinator, rather than EPA or other government officials.

Upon analysis of this comment--and others, discussed earlier, concerning the wide variation possible in both types of waste handled and magnitude of emergencies at facilities--the Agency decided it would be unreasonable to require a formal declaration by government officials that a facility is safe to operate before allowing potentially incompatible wastes to be accepted. It is quite possible that a release, fire, or explosion could occur in one part of a facility without affecting the safety of operations in other parts of the facility. Thus, it would be unnecessary to keep the whole facility from accepting a waste just because the waste may be incompatible with the material released during an emergency in one limited part of the facility.

However, EPA, State, and local officials have a responsibility to ensure that human health and the environment are protected. This responsibility is particularly applicable where a facility has had a release, fire, or explosion of sufficient magnitude to invoke the facility's contingency plan. The Agency believes that the owner or operator should be required to notify EPA and appropriate State and local authorities that cleanup procedures following an emergency have been completed, before the part(s) of the facility affected by the emergency begins to accept potentially incompatible wastes. This notification will allow State and local authorities to be informed about the current status of facility operations.

These same considerations apply to proposed §250.43-3(c)(12), which required that all emergency equipment be cleaned and restored to pre-accident condition before operations are resumed. Consequently, proposed rules (c)(10) and (c)(12) have been combined in the final rules as §264.56 (h), and the notification requirement has been added as §264.56 (i).

One commenter, on proposed rule (c)(12), felt that cleaning of emergency equipment should not be a requirement for resuming facility operations. It was suggested that "cleaning of equipment in a reasonable period of time" should be substituted for the proposed language.

The Agency disagrees with this comment. The suggestion would allow the facility to resume operation after an emergency without

having emergency equipment cleaned and immediately available for use should the emergency condition recur, or should some new condition occur which would require use of this equipment. In the Agency's opinion, this would be an unwarranted threat to the environment and human health. However, the Agency believes that the proposed rule was too broad in scope, since it implied that all emergency equipment at the facility had to be cleaned and restored before resuming operations, whether or not the equipment was acutally used in the emergency. It is the Agency's intent that only the emergency equipment actually used in the affected area(s) of the facility must be cleaned and restored.

All of these points are reflected in the final rules, which state:

(h) The emergency coordinator must ensure that, in the affected area(s) of the facility:

(1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(2) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operated are resumed.

(i) The owner or operator must notify the Regional Administrator, and appropriate State and local authorities, that the facility is in compliance with paragraph (h) of this Section before operations are resumed in the affected area(s) of the facility.

The final interim status standards at §265.56(h) and (i) are identical to the above.

j. <u>§264.56 (j) Recordkeeping and Reporting</u>

[Proposed §250.43-3(c)(13)]

No comments were received on proposed rule (c)(13), which required recordkeeping, and a written report of emergencies to the Regional Administrator. The Agency continues to believe that these incident reports to EPA are necessary and important. EPA will use these for, among other reasons: (1) followup activities at the facility, (2) generating advisory guidance to other facilities to help prevent similar incidents elsewhere, (3) gathering national statistics on emergency conditions, and (4) guiding development of new or revised regulations, as necessary.

The proposed rule did not specify the timing and content of the incident reports. These have been added to the final rule, and are consistent with similar requirements for reporting to the Department of Transportation any accidents in transporting hazardous material.

In the proposed rule, responsibility for recordkeeping and reporting of incidents was placed on the facility emergency coordinator. In the final rule, these responsibilities have been placed on the facility owner or operator, to be consistent with similar requirements in the general recordkeeping and reporting sections (Subpart E). After incorporating these changes, the final rule reads as follows:

(j) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident he must submit a written report on the incident to the Regional Administrator. The report must include:

(1) Name, address, and telephone number of the owner or operator;

(2) Name, address, and telephone number of the facility;

(3) Date, time, and type of incident (e.g., fire, explosion);

(4) Name and quantity of material(s) involved;

(5) The extent of injuries, if any;

(6) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(7) Estimated quantity and disposition of recovered material that resulted from the incident.

The final interim status standard at §265.56(j) is identical to the above.

REFERENCES

1. EPA Trip Report by J. Schaum and E. Crumpler, January 24, 1978.

2. Morning Advocate, Baton Rouge, Louisiana, July 29, 1978.

3. EPA Hazardous Waste Disposal Damage Reports, EPA/530/SW-151, p. 6-8. June 1975.

4. Juneau County (Wisconsin) Deputy Frank in a report written on February 12, 1974.

5. EPA Hazardous Waste Disposal Damage Reports, EPA/530/SW-151.3, June 1976.

6. U.S. Congress, House Report No. 94-1491, Part I, p. 20-21.

7. U.S. Congress, House Report No. 94-1491, Part I, p. 21.

8. News on Country Life, October 18, 1973, Passaic County, New Jersey.

9. U.S. Congress, House Report No. 94-1491, Part I, p. 20.

10. U.S. Congress, House Report No. 94-1491, Part I, p. 17.

11. U.S. Congress, House Report No. 94-1491, Part I, p. 22.

12. Chicago Tribune, March 21, 1973.

13. EPA Report "Oil Spills and Spills of Hazardous Substances," March 1977, p. 26.

14. EPA Report "Oil Spills and Spills of Hazardous Substances," March 1977, p. 27.

15. U.S. Congress, House Report No. 94-1491, Part I, p. 20.

16. EPA Report "Oil Spills and Spills of Hazardous Substances," March 1977, p. 28.

ATTACHMENT

SUMMARY OF EXISTING LAWS AND REGULATIONS WITH REGARD TO PREPAREDNESS, CONTINGENCY PLANS, AND EMERGENCY RESPONSE

A. Federal Laws

The Federal laws discussed below require certain preparedness measures, contingency plans, or emergency responses. Thus, they provide a precedent for Federal regulatory activity in those areas.

1. Occupational Safety and Health Act of 1970

This Act authorizes the Secretary of Labor to set mandatory standards to protect the occupational safety and health of all employers and employees of business engaged in interstate commerce. Section 6(b) deals specifically with toxic materials and other harmful agents requiring the Secretary to "set the standard which most adequately assures that no employee will suffer material impairment of health or financial capacity" from regular exposure to such hazards. Specific requirements issued under this Act pertinent to emergency response standards are discussed below.

Emergency response requirements have been issued for all facilities which handle, process, release, or store vinyl chloride or the following carcinogens: 4-nitrobiphenyl, alpa-Napthylamine, 4,4'-Methylene bis (2-chloroaniline), Methyl chloromethyl ether, e,3'-Dichlorobensidine (and its salts), bis-Chloromethyl ether, beta-Napthylamine, Benzidine, 4-Aminodiphenyl, Ethyleneimine, beta-Propiolactone, 2-Acetylaminofluorene, 4-Dimethylamnoazobezene, or N-Nitroso, dimethylamine. In the event of an accidental release, which may result in exposure to or contact with any of the above substances:

a. The potentially affected area must be evacuated as soon as the emergency has been determined.

b. Hazardous conditions created by the emergency must be eliminated and the potentially affected area must be decontaminated before resuming normal operations.

c. Special medical surveillance by a physician must be instituted within 24 hours for employees present in the potentially affected area at the time of the emergency.

d. An incident report on the emergency must be made within 24 hours to the nearest OSHA Area Director.

e. A written report must be filed with the nearest OSHA Area Director within 15 calendar days of the event and must include:

(i) A specification of the amount of material released, the amount of time involved, and an explanation of the procedure used in determining this figure;

(ii) A description of the area involved and the extent of known and possible employee exposure and area contamination;

(iii) A report of any medical treatment of affected employees and any medical surveillance program implemented; and

(iv) An analysis of the circumstances of the incident and measures taken or to be taken, with specific completion dates, to avoid further similar release.

The contingency requirements issued by OSHA for facilities handling carcinogens are consistent with those of RCRA for hazardous waste facilities.

2. Clean Water Act

In response to the President's request for the Council on Environmental Quality to carry out Subsection (c)(2) of Section 311 of the Clean Water Act, as amended (33 U.S.C. 1251 et seq.), the Council developed the National Oil and Hazardous Substances Pollution

Contingency Plan. The objectives of the plan are "to provide for efficient, coordinated, and effective action to minimize damage from oil and hazardous substance discharges, including containment, dispersal, and removal." The plan is effective "for the navigable waters of the United States and adjoining shorelines, and for the contiguous zone and the high seas where a threat to the United States' waters, shoreface, or shelfbottom exists."

The owners or operators of nontransportation-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 CFR 40 Part 110, into or upon the navigable waters of the United States are required to establish a Spill Prevention Control and Countermeasures plan under Section 311 of the Clean Water Act, as amended, to prevent discharges of oil into the navigable waters of the United States and to contain such discharges if they occur.

3. Federal Insecticide, Fungicide, and Rodenticide Act

Under authority of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended by the Federal Environmental Pesticide Control Act of 1972, the EPA promulgated "Regulations for the Acceptance of Certain Pesticides and Recommended Procedures for the Disposal and Storage of Pesticides and Pesticide Containers" (40 CFR 165). The following guidelines pertinent to accidents at pesticide management facilities were published:

a. All accidents or incidents involving the storage or disposal of pesticides, pesticide containers, or pesticide-related wastes should be reported to the appropriate Regional Administrator.

b. Containers should be checked regularly for corrosion and leaks. If any are found, the container should be transferred to a sound, suitable, larger container and properly labeled. Materials such as adsorptive clay, hydrated lime, and sodium hypochlorite should be kept on hand for use, as appropriate, for the emergency treatment or detoxification of spills or leaks.

c. A number of accident prevention measures are suggested.

d. The use of protective clothing and respirators is recommended for all employees handling pesticides.

e. Where large quantities of pesticides are stored, or where conditions may otherwise warrant, the owner of stored pesticides should inform the local fire department, hospitals, public health officials, and police department, in writing, of the hazards that these pesticides may present in the event of a fire.

B. State Laws

Until recently, most State laws regarding solid waste management did not contain preparedness, contingency plan, or emergency response requirements. Some States did prepare spill contingency plans to provide for coordinated response by various State agencies to spills or discharges of oil or hazardous materials into waters of the State, or for reporting of spills to the State agencies.

In recent years, however, several States have enacted laws specific to hazardous waste management (as opposed to non-hazardous solid waste), and some of these laws require that contingency plans be prepared by hazardous waste management facilities. Highlights from such State laws are discussed below.

1. Arkansas: Arkansas Solid Waste Disposal Code (June 1973)

Requirements for sanitary landfills:

(a) Arrangements shall be made for fire protection service when a public fire protection service is available. When such a service is not available, practical alternate arrangements shall be made.

(b) Telephone or radio communications shall be provided at the landfill site.

(c) All-weather operational road(s) shall be provided for vehicular movement within the site.

Requirements for incineration:

(a) Firefighting equipment meeting the standards shall be available in the storage and charging areas, and elsewhere as needed.

(b) Arrangements shall be made with the local fire protection agency to provide firefighting forces in an emergency.

2. California: California Guidelines for the Handling of Hazardous Waste, 1974; California Guidelines for Hazardous Waste Land Disposal Facilities, 1973; California Hazardous Waste Regulations, Administrative Code Title 22, 1977

(a) A contingency plan must be prepared which includes:

(1) Actions that would be taken when an accident or accidental discharge occurs:

(2) The equipment and manpower available to correct effects of an accident or accidental discharge; and

(3) Emergency procedures for evacuating employees and notifying agencies responsible for provision of services during emergencies.

(b) Hazardous waste facilities shall be designed, equipped, and operated to prevent discharge of hazardous wastes outside areas designated in the operation plan.

(c) Equipment used to handle, treat, store, or dispose of hazardous waste shall be designed to avoid an uncontrolled reaction, fire, explosion, or discharge of hazardous waste.

(d) The Department may, on a case-by-case basis, require the hazardous waste facility to have one or more of the following, if necessary to protect public health and safety:

(1) A telephone or radio for summoning aid in an emergency;

(2) Protective clothing and equipment to enable employees of the facility to work safely with hazardous wastes that are accepted at the facility;

(3) At least one safety shower and one eyewash that are readily available to all personnel working in hazardous waste areas;

(4) First aid supplies.

(e) Contaminated wash water, waste solutions, or residues generated from washing or decontaminating the equipment shall be collected and disposed of as hazardous waste.

(f) Report accidents:

(1) Within 24 hours of the time of occurrence;

(2) The Department may require a written report be provided within 30 days.

(g) The Department and local fire authority shall be kept currently advised of the names, addresses, and telephone numbers, including emergency telephone numbers, of the operator, station manager, and supervisor.

3. Connecticut: Connecticut Department of Environmental Protection, Solid Waste Management Regulations, Sections 19-524-1 through 19-524-12, 1978

(a) Appropriate measures shall be taken to prevent and control fires.

(b) A certified operator or a designee shall be present at a solid waste area at all times during working hours to ensure that operations are conducted in conformance with applicable statutes and regulations.

(c) Each facility shall establish a contingency plan outlining procedures for obtaining alternative equiment or other alternative methods of disposal in the event of equipment breakdown.

4. Iowa: Iowa Department of Environmental Quality, Solid Waste Rules, Title IV, 1973

(a) A contingency plan must be preapred which details specific procedures to be followed in case of equipment breakdown, maintenance down time, or fire in equipment or vehicles, including methods to be used to remove or dispose of accumulated waste.

(b) In the event significant leachate is detected, the Department shall be notified, and the permit holder shall submit a plan for controlling and treating the leachate.

5. Minnesota: Minnesota's Hazardous Waste Management Rules, 6MCAR, June 1979

The facility operator shall:

(a) Prepare procedures for personnel to follow in the case of spills of hazardous waste, and in the case of fire and other emergencies;

(b) Post these procedures in a conspicuous place at the facility site;

(c) Have safety equipment available at the facility site for use during spills, fires, and other emergencies;

(d) Have available, at all times, written procedures for handling spills, fires, and other emergencies;

(e) Have communication equipment available at the site for summoning aid in an emergency;

(f) Prevent the discharge of hazardous waste from the facility to the surface or ground waters of the state and prevent hazardous waste from entering drains, sewer inlets, storm sewers, sanitary sewers, doorway vents, tunnels, pipes, windows, or areas with permeable earth or soil floors; and

(g) Immediately notify the Agency if the hazardous waste may cause pollution of air, land, or waters of the State.

6. Oklahoma: Solid Waste Management Act of 1970, with Rules and Regulations, Title 63, Sections 2251-2265; and Rules and Regulations for Industrial Waste Management, July 1977

(a) Suitable measures shall be taken to prevent and control fires.

(b) An adequate stock of first aid supplies shall be maintained at the site.

(c) Unloading of hazardous waste at the site shall be controlled as to procedures for handling dusts or fine solids so as: (1) not to produce hazardous airborne contaminants, (2) prevent contamination or splashing of transport vehicles, and (3) to clean, decontaminate, and wash out vehicles and containers (e.g., emergency decontamination showers).

(d) Facility operators must report emergency situations in 48 hours by a written statement.

7. Oregon: Oregon Administrative Rules, Chapter 340, Division 63, 1979; and Oregon Solid Waste Control Law, 1977

(a) Facility operators shall maintain current contingency plans to minimize damage from spillage, leakage, explosion, fire, or other accidental or intentional event.

(b) Hazardous waste shall be managed in a manner that will minimize the possibility of a dangerous uncontrolled reaction, the release of leachate, noxious gases or odors, fire, explosion, or the discharge of such waste.

(c) A facility operator shall become familiar with the hazards associated with the waste and the procedure to be followed in the event of an emergency situation.

(d) All accidents or other occurrences which may result in the discharge of such waste to the environment shall be immediately reported to the Oregon Accident Response System.

8. Rhode Island: Hazardous Waste Disposal Facilities, Rules and Regulations, December 1978

(a) Hazardous waste disposal facilities shall be equipped, operated, and maintained to minimize chance of fire and explosion, and to protect the health and safety of the users of the facility, personnel associated with the operation of the facility, and any other persons who might come into contact with the site or with gaseous or liquid materials emanating from the operations of the facility.

(b) Facility operators shall have safety equipment available for use during spills, fires, and other emergencies, including a suitable means of communications for summoning aid in an emergency.

(c) All mobile equipment used at a hazardous waste facility shall be equipped with suitable fire extinguishers.

(d) The facility operator shall have and maintain at least, but not limited to, the following safety equipment:

(1) Protective clothing and equipment to enable personnel associated with the operation of the facility to work safely with the hazardous wastes that are accepted at the facility;

(2) One safety shower and one eyewash that are readily available to all personnel working the hazardous waste areas; and

(3) First aid supplies.

(e) The facility operator shall make arrangements with a nearby fire department to provide emergency service whenever called.

(f) The facility operator shall collect hazardous waste discharged and handle it as a hazardous waste.

(g) The facility operator shall report any accident immediately. The Director may require a written report to be provided.

9. Texas: 1978 State of Texas Oil and Hazardous Substance Spill Contingency Plan, September 1978

(a) Purpose: The plan is to provide procedures for a coordinated response to spills or accidental discharges of oil or other hazardous materials into the waters or adjacent to the waters of the State of Texas by State agencies concerned with protection of the environment and the public health and welfare. It is also the purpose of this plan to outline methods by which such spills and accidental discharges will be reported to State agencies having regulatory responsibility over the activities and/or facilities involved in spills or accidental discharges.

(b) Spill Discovery: Section 26.039 of the Texas Water Code requires that, when an accidental discharge or spill occurs at, or from, any activity or facility which causes or may cause pollution, the individual operating, in charge of, or responsible for the activity or facility shall notify the

office of the Texas Department of Water Resources as soon as possible, and not later than 24 hours after the occurrence.

(c) Telephone Reports: Contents of telephone reports shall be as follows:

(1) Where known, the name, address, and telephone number of the party in charge of, or responsible for, the activity or facility, and of the party at the site of the spill or accidental discharge who is in charge of operations at the site;

(2) The exact location of the spill or discharge, including the name of the waters involved;

(3) The type of material spilled or discharged;

(4) An estimate of the quantity of material spilled or discharged;

(5) The extent of actual and potential water pollution; and

(6) The steps being taken or proposed to contain and clean up the spilled or discharged material.

Persons within the concerned agencies to be notified are as follows:

Texas Department of Water Resources
Texas Parks and Wildlife Department
Railroad Commission of Texas
Texas Department of Public Safety
Texas Department of Health
Environmental Protection Agency - Region IV
U.S. Coast Guard Personnel

(d) Oil Spills:

(1) Reporting

(2) Containment and Oil Removal

(e) Hazardous Substance Spill:

(1) Discovery and Notification

(2) Containment, Removal, and/or Treatment

(3) Prevention of Spills of Hazardous Substances

Every effort must be made by the party responsible for the storage, handling, or transportation of hazardous, polluting substances to provide for spill prevention, containment of accidental spills, and a countermeasure plan to be used in the event of an accidental spill or discharge. Failure to provide for such a plan may, upon consideration of the circumstances uuder which a spill or accidental discharge occurs, be deemed as negligence and be the basis for appropriate legal action, pursuant to the provisions of the Texas Water Code.

10. Washington: Washington Hazardous Waste Regulation, WAC 173-302-250 and WAC 173-302-310, July 1978)

The facility operator shall:

(a) Prepare a contingency plan that specifically relates to the anticipated types of waste;

(b) Outline actions that would be taken when fires, spills, explosions, adverse chemical reactions, or other accidents occur;

(c) List equipment and manpower available to respond to such an occurrence;

(d) Outline mitigating or corrective measures that would be taken where ambient monitoring has detected any waste previously buried, stored, or handled;

(e) Insure that personnel working on the site use adequate protective clothing and respiratory protection;

(f) Take immediate action to contain, extinguish, and prevent the further dispersion of wastes in the event of spills, fire, explosions, chemical reactions, or accidents; and

(g) Maintain telephone and radio contact with a security patrol.

53272-101

REPORT DOCUMENTATION PAGE	1. REPORT NO.	2.	3. Recipient's Accession No. PB81 181372
4. Title and Subtitle Standards Applicable to Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities Under RCRA, Subtitle C, Section 3004 Standards for Preparedness and Prevention; Standards for Contingency Plan and Emergency Procedures			5. Report Date April 1980
			6.
7. Author(s)			8. Performing Organization Rept. No. 1941.7
9. Performing Organization Name and Address U.S. Environmental Protection Agency 401 M Street, S.W. Washington, D.C. 20460 Office of Solid Waste			10. Project/Task/Work Unit No.
			11. Contract(C) or Grant(G) No. (C) (G)
12. Sponsoring Organization Name and Address Same as box 9			13. Type of Report & Period Covered
			14.

15. Supplementary Notes

16. Abstract (Limit: 200 words)

This document is one of a series providing support for regulations issued by the U.S. Environmental Protection Agency (EPA) under Subtitle C of the Resource Conservation and Recovery Act (RCRA). The regulations represent the initial effort for nationwide control of hazardous waste from point of generation, through transportation, treatment, and storage, to point of ultimate disposal.

This document covers standards applicable to hazardous waste management facilities, specifically Preparedness and Prevention, (Subpart C), and Contingency Plan and Emergency Procedures, (Subpart D).

17. Document Analysis a. Descriptors

b. Identifiers/Open-Ended Terms

Resource Conservation Recovery Act regulations
Hazardous waste facility standards

c. COSATI Field/Group

18. Availability Statement	19. Security Class (This Report)	21. No. of Pages
	20. Security Class (This Page)	22. Price

(See ANSI-Z39.18) See Instructions on Reverse OPTIONAL FORM 272 (4-77) (Formerly NTIS-35) Department of Commerce