OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

U. S. DEPARTMENT OF THE INTERIOR
Federal Water Pollution Control
Administration

TO : SEE BELOW

DATE: November 3, 1967

FROM : Chief, Enforcement Activities
Section, Division of Technical Services

SUBJECT: Report on Oil Pollution Control Activities

Most of the Regional responses to the contingency plans and other involvements in water pollution situations of a nonrecurring, but of an emergency nature, have been gratifying to this office.

Consider the following:

1. An abandoned ship in Lake Michigan was found to contain a considerable quantity of fuel oil in her bunkers. The Great Lakes Region was successful in obtaining an agreement from the owner to have the oil removed.

2. The ESSO STONER grounded and broke up outside the harbor of Wake Island. The Southwest Region sent a man to the scene who worked in close cooperation with the Coast Guard and FAA during harbor booming and cleanup procedures. Headquarters was kept advised of each operational decision by continuous sit-reps.

3. The oil slick that appeared in Lake Michigan in late September was continuously surveyed by the Region. Oil samples were taken and analyzed and a report was prepared. One recommendation stated that Indiana Harbor should be permanently boomed.

4. An aquatic biologist has been permanently assigned to Anchorage, Alaska, to, among other things, patrol and evaluate damages that might result from the onshore and offshore oil operations around Cook Inlet. He has been successful in having court proceedings brought against one polluter, getting a successful cleanup operation from a pipeline spill, and has another set of charges pending against an oil discharger.

5. A pipeline broke and spilled an estimated 4,200 gallons of fuel oil into the James River 60 miles above Richmond. Water supplies for the City of Richmond, a paper company, and a power plant were threatened. The Middle Atlantic Region was successful in prevailing upon the State to disallow the use of chemicals to emulsify the oil. After checking the water plants to be sure

that a plentiful supply of waste and odor absorbant materials were in stock, Regional personnel were on hand to consult with the pipeline company cleanup crew in the installation of a diversion boom and a hay filter boom above the water intakes.

Each region has participated in "pollution accidents" in one form or another in the past five months, and the examples cited above were highlighted just to give you an idea of the spectrum these incidents span.

Nationally, there is evidence that when an accident occurs, there is close cooperation between the Federal agencies having pollution control responsibilities (FWPCA, Coast Guard, and Corps of Engineers) and the States. A common comment from the Regions is to the effect that when an accident does occur, the most prevalent feeling in the States is to "wait and see what happens." When our Regional staffs step forward with suggestions, such suggestions are eagerly received and usually followed. It is at this point when our contingency plans prove their investment of time spent in pre-planning. To those of you who have not yet formalized your pollution emergency centers, let me encourage you to give this activity a top priority.

The Oil Report has been forwarded to the President and should be released shortly. The Regions will be among the first to receive copies.

I am enclosing a contingency plan scope that was prepared by one of the field projects. Please feel free to comment on this document.

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Introduction

In the development of regional contingency plans, there are certain vital needs which must be met. Such a plan must provide an effective and coordinated response to any significant incident relating to a spill of oil or other hazardous substance. It must also develop a program designed to prevent such disasters through surveillance, education, enforcement and other means. A plan must take into account the present responsibility and capability of each agency and private interest that is involved. Finally, it must take into account the conflict of regional or district boundaries of the principal Federal agencies and the various jurisdictions of all levels of government.

Present Contingency Planning Practices

Except in certain geographical areas, there is little coordination between agencies, both State and Federal, to combat and minimize effects from the discharge of oil and other hazardous materials in a disaster of catastrophic proportions. The Federal agencies with primary responsibilities for these problems include the Army Corps of Engineers, U. S. Coast Guard, the Office of Emergency Planning, and with the transfer of responsibility for the Oil Pollution Act of 1924 to the Department of Interior, the Federal Water Pollution Control Administration. The Corps of Engineers' authority, in these matters, is vested in the Refuse Act of 1899. This responsibility extends over all navigable waters and tributaries and can result in prosecution of those parties guilty of unauthorized discharges with the exception of sewage. The Coast Guard has responsibilities which include: search and rescue; regulations of hazardous cargoes, including oil and chemicals; safety of ports, vessels and off-shore oil drilling operations and control of vessel movements. The air and sea surveillance activities of the Coast Guard, are at present, the best means of detecting an oil spill.

The Office of Emergency Planning, upon the declaration of a disaster by the President, assumes overall responsibility for all operations designed to combat and reduce the effects of a disaster. A notable example of the role of O.E.P. in such an instance, is reflected in the recovery of a chlorine barge in the Mississippi River in 1961.

The State agencies with primary responsibilities in the event of a major spill of oil or other hazardous materials include the Water Pollution Control Organization and/or the Health Department, the Fish and Game organization and

the Civil Defense organization. These agencies operate under a framework of State laws and their role is dependent upon jurisdiction and the nature of the situation.

Within recent years, the number of spills of oil and other hazardous substances has increased due to an increase in volume and intensity of traffic conveying these materials. As a result, a number of operating agreements have been developed, particularly where the problem has become significant, to effect overall coordination between the responsible agencies. One example of such an instance is the New York City Harbor. The Army Corps of Engineers has created a Harbor Supervision Branch to provide enforcement under the authority of Section 451, U. S. Code Title 33 as amended. This force consists of about 40 people and several patrol boats. The Branch patrol activities are greatly augmented by Coast Guard's normal air and sea surveillance activities. The Branch conducts investigations of all known instances of oil spills in the Harbor and collects evidence for prosecution by the U. S. Attorney's Office. The coordination effected between the Coast Guard primarily as an instrument of detection and the Corps of Engineers as an enforcement agency is to be commended. It is also true that the presence of such an enforcement activity has resulted in increased awareness by the oil industry as to their responsibility in the prevention of oil spills. One major oil company in this area presently notifies the Harbor Supervision Branch of each oil spill that originates from its facilities.

Near the mouth of the Mississippi River in Louisiana an alert system is in existence. The discovery of oil or toxic materials in the river is reported to the Louisiana State Health Department of the Stream Control Commission. These agencies alert all downstream water users by means of the Louisiana Waterworks Warning Network. This system utilizes river-boat operators, marina operators, Corps of Engineer personnel, and other persons on the river to provide intelligence.

These and similar examples of present contingency planning that exist do serve to illustrate several definite advantages. These are (1) the provision for exchange of information on a regular basis by all agencies concerned, (2) present utilization of the facilities normally operated by an agency for a particular aspect of the problem, i.e., surveillance by the Coast Guard, (3) the success of enforcement and education activities by regulatory agencies in producing greater awareness and cooperation from those responsible for spills of oil and other hazardous materials and (4) the development of proper procedures to present evidence in a court of law. The major weaknesses of present contingency planning are (1) lack of coordination on a national level--procedures vary in various regions, (2) lack of coordination and communication by all responsible agencies within a given region, (3) no provisions for alerting and marshalling in the event of a major disaster, (4) little means if any for containing and removing hazardous substances, (5) lack of rigorous preventative programs including enforcement and education, (6) lack of readily available information concerning critical water uses and poten-

tial hazards, (7) no coordinated operational means for directing disaster activities, (8) insufficient surveillance and detection resources and (9) lack of any public information facilities.

Factors to be Considered

In a discussion of the factors to be considered in regional contingency planning, it is evident that the causes of spills of oil and other hazardous substances and their effects on water use, will vary considerably, depending primarily upon where the incident occurs. In certain regional plans, facilities, such as, major terminals or refineries, drilling operations, pipelines and similar features analogous to that area will have to be recognized and dealt with. However, on a national basis, common procedures should be employed by all agencies involved wherever possible. Such methods will insure a uniformity at all levels and avoid unnecessary confusion and misunderstanding. In developing regional contingency plans, the factors indicated below should be thoroughly developed.

1. Operation Control Center: Such a center must be capable of obtaining and evaluating all information relative to a major spill of oil or other hazardous substance and controlling all Federal on-scene operations. Selected regional centers would be established at key locations in the country and would maintain teletype communications with a National Control Center in Washington. Within each region it is likely that sub-regional control centers will be required to provide coverage at key locations where time and distance would preclude effective control by the regional control center. The operation of the regional and sub-regional control centers would be the responsibility of the Regional Director, FWPCA. Nominal members of the control center team would include U. S. Coast Guard, FWPCA, Army Corps of Engineers and Office of Emergency Planning. The centers would be activated at the direction of the responsible agency, who would assume operational control when a disaster had occurred or appeared imminent. The regional center would maintain communication and submit periodic and end of action reports to the National Control Center. The sub-regional

control centers would report directly to the regional control center. The conduct of practice alerts, training and communication tests would be the function of the responsible agency.

2. Preventative Programs: This effort will require that regulatory agencies obtain more effective knowledge and surveillance of oil drilling operations, major terminals, manufacturing operations, storage facilities and transportation routes for oil and other hazardous substances and pipeline networks. It is likely that restrictions will be imposed, relative to water, truck and rail routes utilizes for the transport of such materials in order to avoid collisions and alleviate or minimize the effects of spills where a critical water use exists. In addition, an educational program designed to overcome principal causes for spills should be developed on a national and regional basis. These factors include negligence of personnel, malfunction and deterioration of equipment, faulty maintenance, improper cleaning operations and inadequate waste treatment. Such a program must include investigative capabilities and should develop national regulations to provide a series of progressive warnings and fines to offenders in order to be effective.

3. Inventory of Potential Hazards, Critical Water Use and Containment and Removal Equipment: In order to effectively combat significant spills and to be aware of potential hazards, it is necessary to develop and maintain a current inventory of all handling facilities for such hazardous materials. The data should cover all means of transport, including shipping routes, production, storage, transfer and in some instances, use of these substances. In cases where detailed information, such as pipeline data concerning size, location, material or materials transported and location of major control valves and pumping facilities would be useful, it should be collected.

Of equal significance, is a need to update current inventories within the region, of critical water use. This data would include information relating to watershed, intake, treatment and storage features of all municipal water supplies; industrial and agricultural water uses; bathing beaches, parks, marinas and other recreational facilities, wildlife areas; and commercial fishing operations, including location of shellfish beds. Data should also be developed concerning time of transit in streams and current patterns in tidal waters.

Data must be provided which would include a current listing of all types of equipment and substances which might be used in order to contain and remove or otherwise treat spills of oil and other hazardous materials. It should include local, state, Federal and private sources. In addition, the location of the item and any restrictions regarding its use or availability should be outlined.

4. Surveillance and Detection: This aspect of the problem will require a coordinated effort by all means available on a continuous basis. Full use of all present facilities air, sea and ground must be made. Public information programs should be developed to enlist the support of all citizens. Telephone numbers would be supplied to the public where facilities are constantly manned or where an answering service could be provided. Arrangements should be concluded with private and Federal facilities to provide immediate notification should any spill occur. Care should be taken to provide uniformity of information and all facts possible in terms of what, where, when, why and who in the first report.

5. Initial Investigation and Evaluation: Upon the receipt of the initial report of a spill an evaluation will have to be made immediately with regard to the urgency required and the best available means of conducting an investi-

gation and further evaluation. These procedures may involve the dispatch of a vessel or aircraft to the scene or possibly a single investigator will be sent. Past experience indicates that the time factor in the initial stages of a disaster of this type is critical. Therefore, investigative facilities must be available on a 24-hour basis. The overall investigative force available should not only include the principal Federal agencies responsible, but state and local personnel as well. The investigators will have to be well trained and equipped to obtain the facts, assess the present situation, render a meaningful report and if necessary, collect samples. It is important that reports be uniform in context with regard to all incidents.

6. Alerting Key Agencies: The alerting procedure will require that lists be prepared and maintained in order to notify key personnel of a given situation. Such lists would basically contain by agency the name, title, address, business telephone number and emergency telephone number of such individuals. Care should be taken to contact only those persons or agencies which are affected or may be affected. It is likely that the alerting procedure would have to be progressive, in that additional people would be notified as a situation becomes more critical. It would appear logical that agencies should be responsible for notifying other agencies with which day by day operations are conducted. For example, the FWPCA should alert state and interstate water pollution control agencies. It will be necessary in some instances to direct on-call duty assignments for non-working hours for certain personnel, in order to insure an adequate response at any time.

7. Communications: Provisions should be contained in contingency planning for readily available and reliable communications. Teletype facilities should be located in all control centers including the national center. Existing radio communications of the Coast Guard, Department of the Defense

and Civil Defense networks should be utilized as needed. Telephone numbers of key personnel and radio frequencies of all agencies should be current and readily available. Emergency radio frequencies should be known and accessible.

8. Operational Jurisdiction: Federal operational jurisdiction will be employed by the agency responsible for directing the control center. There are problems which will arise when state and local jurisdiction may result in conflict with Federal operations, or in international waters where no Federal jurisdiction exists. In the first instance, it may be possible to conclude working arrangements within a given area between all agencies concerned. All such agreements should be referred to Headquarters for approval. Any conflict or lack of jurisdiction should also be brought to the attention of Headquarters.

9. Containment, Removal or Neutralization: Technical assistance, in terms of recommending material to be used or procedures to be followed in general or specific instances, will be a function of FWPCA. The actual work will be accomplished by the party involved in the incident; state, local or Federal equipment and personnel or by contract with commercial facilities. It is likely that due to the shortage of booms and dredges, that equipment pools will have to be provided.

10. Legal Prosecution: Where Federal prosecution is contemplated, the case should be prepared by FWPCA where the Oil Pollution Act of 1924 as amended, is applicable and by the Corps of Engineers where the Refuse Act of 1899 is indicated. In addition, there will likely be legal proceedings instituted by state and local agencies. All investigative procedures should be designed to produce evidence which is readily admissible in court. For example, a log

or record of sample handling from the time of collection to the report of analyses should be properly maintained to insure that such evidence will not be barred because it cannot be proven that the results shown were actually related to a specific incident. The FWPCA laboratory facilities should be utilized for analyses of oil samples.

11. Public Information Planning: There are several aspects of public information related to significant spills of oil or other hazardous substances which should be carefully considered.

As a situation develops which can produce an adverse effect regarding public health or welfare, there is a need to inform the general public of the basic facts. Such action, particularly to those in the immediate vicinity, will prevent unwarranted alarm and insure public cooperation.

News media representatives will be attracted to an incident involving a major spill of hazardous material due to widespread public interest. Care must be taken to provide these representatives, maximum opportunity to obtain proper coverage.

Another consideration is the need to prevent contradictory, overlapping or uncoordinated information releases by representatives of the various agencies and levels of governmental authority involved in an incident.

In order to resolve these problems, the agency responsible for operating the control center will provide a public information office. This office shall be responsible for all information releases, providing assistance and coordination to the news media personnel present and maintaining contact with the

public information office in the national control center.

12. Periodic and End of Action Reports: It is vital that information relating to regional activities, both of a routine and special nature be submitted to Headquarters on a regular basis. Formats will be prepared for such reports and a schedule of periodic reporting will be developed by Headquarters. In this fashion, the status of readiness, the current activities and the major problems in each region are readily discernible on a national level. End of action reports will be obtained from each region following each significant incident. Such reports would be comprehensive in nature and spell out clearly the failures and successes of each operation so that the lessons learned, can be applied to future situations.

There are other factors to consider in an overall sense in preparing a contingency plan. It must be recognized that participation will vary from State to State in terms of different resources, organization and jurisdictions. All plans must be devised to assure sound engineering judgment in evaluating a situation, providing a workable margin of safety in operations, and developing and conducting proper corrective action. However, such safeguards must be designed to avoid any undue delay in conducting necessary operations.

In summary, the principal purpose of regional contingency planning, is to develop a coordinated means, in terms of organization, resources and actions, by responsible agencies for combatting and minimizing the effects of any significant spill of oil or other hazardous substances within a particular region.

Mechanism of Control

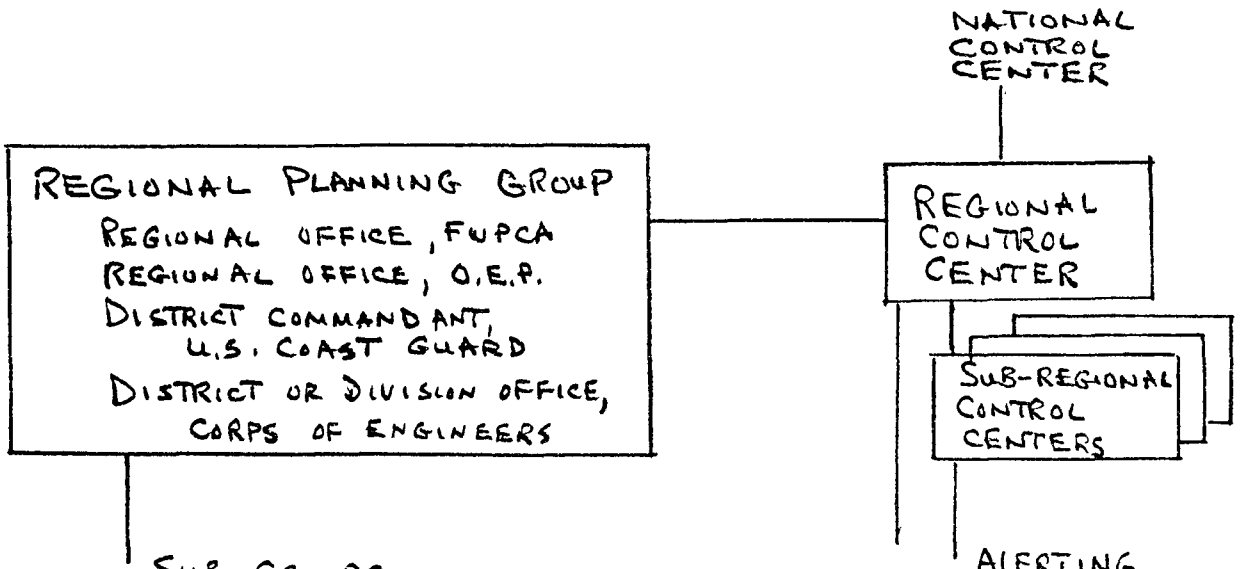
The needs of regional contingency planning can be basically divided into two elements. First, is the requirement to provide an organization capable of undertaking immediate, coordinated and positive action to contain, remove and minimize the effects of a significant spill of oil or other hazardous substance. The regional control center with the resources previously outlined is equipped to alert, evaluate, conduct on-scene operations and coordinate efforts with all agencies and the national control center.

Second, is the need for a separate and continuing organization to plan and administer the daily on-going programs of surveillance, enforcement, technical evaluation and education. These activities are, for the most part, preventative, and involve many other state, local, Federal and private interests. In addition, it is recognized that such programs should be coordinated on a national level to prevent conflict between primary agencies and avoid duplication.

An organizational chart is shown in Figure 1 which depicts a typical structure. It is possible that the regional concept may vary somewhat in order to compensate for factors identified with a particular area of the country. The sub-groups would include state, local and other Federal agencies as well as private interest. Members of the regional operating group would serve on or chair the sub-groups and assure proper control and guidance throughout the structure. In addition, the sub-groups would provide through periodic reports, complete access to the entire operation to the principal agencies concerned and in turn to their respective headquarters.

An added advantage would be the fact that members of the operating committee would either operate or be closely identified with the regional control center. The knowledge gained and the close relationships established would provide a tremendous asset in rendering evaluation and conducting operations.

REGIONAL ORGANIZATION FOR CONTINGENCY PLANNING & OPERATIONS



SUB-GROUPS

1. EDUCATION & PREVENTION
2. DETECTION & SURVEILLANCE
3. COMMUNICATIONS
4. TECHNICAL ASSISTANCE
5. CONTAINMENT & REMOVAL
6. LEGAL
7. ENFORCEMENT
8. PUBLIC INFORMATION