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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

OIL SPILLS: REACTION AND RESPONSIBILITY IN NEW JERSEY

COASTAL NOTES NO. R-3

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OIL SPILLS: REACTION AND RESPONSIBILITY IN NEW JERSEY

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Spills of oil, chemicals, debris, and other hazardous materials in New Jersey are ten times more frequent today then they were five years ago.[1] Because New Jersey's largest industrial activity is the manufacture of petroleum, petrochemicals, and related operations, a potential environmental threat exists through the sheer quantity and type of materials being handled.

A spill of oil or any other hazardous material can kill fish and wildlife, destroy vegetation, and contaminate water supplies. Oil which is allowed to seep into the land or drain into the ground and surface waters is difficult to remove, and can therefore remain a hazard for a long time to the detriment of fish, wildlife, vegetation, and water quality.

In order to avert these oil spill related environmental problems, the Federal and New Jersey State governments have developed programs for oil spill prevention and control. This pamphlet describes the governmental reactive capacity to oil spills and also explains how to report an oil spill to these agencies.

Where does spilled oil come from and what is New Jersey doing to combat spillage and subsequent spill damage? Oil spills can occur at refineries, storage terminals, or pipelines, and from oil transport trucks, marine transport ships, and private sources. Presently, New Jersey has five oil refineries with a combined storage capacity of 28½ million gallons; approximately 350 storage terminals with a combined storage capacity of three billion gallons; and over 700 miles of pipelines stretching across the state.

Most spills occur within the three geographical areas where the flow of commercial oil traffic is the greatest: 1) in northeastern New Jersey in the Arthur Kill, the Passaic River and the Raritan River and Bay; 2) in southwestern New Jersey on the Delaware River and Delaware Bay; and 3) along a corridor linking these two areas.

The reported volume of spilled oil has risen steadily for the past five years, increasing from less than one million gallons in 1971 to over thirty million gallons in 1975[2].

[1] New Jersey Department of Environmental Protection, Office of Special Services Statistics

[2] Ibid.

Only one-third of all the oil spills which occur in New Jersey are reported; an estimated two-thirds go unreported. Because many of the unreported spills are of 1,000 gallons or less, the one-third which are reported represents 85% of the total volume of oil spilled in New Jersey. The largest number of spills of significance are related to truck transport accidents, whereas the largest quantity of oil is spilled from marine transport ships.

Organized response to oil spills in New Jersey occurs at Federal and State levels of government. The major Federal responsibility rests with the Coast Guard, which has jurisdiction over oil spills into all navigable waters, the tributaries thereto, and adjoining shorelines. The Environmental Protection Agency aids the Coast Guard with the clean-up of oil spills into inland waterways and its associated tributaries. New Jersey has jurisdiction over spills of oil and other hazardous materials into all waterways and groundwaters of the state.

The Federal response operates under the National Oil and Hazardous Substances Pollution Contingency Plan (NOHSPCP), established pursuant to the Federal Water Pollution Control Act of 1972 (P. L. 92-500). This plan is designed to coordinate and direct Federal and State government activities in the event of a spill, to minimize damages, and to contain and remove the pollutant. When a reported spill is within the jurisdiction of the federal agency, responsibility for directing federal operations lies with the On-Scene Coordinator (OSC), a federal official predesignated by the Coast Guard or the EPA.

The On-Scene Coordinator, with the advice and concurrence of the Regional Response Team, a group of specialists representing federal and state advisory agencies, directs and coordinates the control and clean-up tasks utilizing current acceptable procedures. On particularly large or sensitive spills, Strike Teams are called to provide communications support, assistance, and expertise in ship salvage, diving and removal techniques.

The major law authorizing state response to oil spills in New Jersey is the New Jersey Water Quality Improvement Act of 1971 (N.J.S.A. 58: 10-23 et. seq.) This act declares it unlawful to discharge petroleum products, debris, and other hazardous materials into the waters of New Jersey, and it empowers the Department of Environmental Protection to deal with any unlawful discharge by enforcing prompt containment and removal of such substances.

The Office of Special Services, located in the Water Resources Division of the Department of Environmental Protection, is responsible for conducting and coordinating state-wide programs for preventing, containing, and removing spills of oil and hazardous materials as well as providing specialized geological services to the Division.

The Office is divided into three sections: Geological Services, Spill Prevention, and Spill Response. The Geological Services Section provides the OSS with pertinent information on groundwater supplies and geological structures, as well as with data on groundwater pollution, especially in relation to sanitary landfill operations, land disposal of treated wastewaters and chemical dumping.

The Spill Prevention Section reviews all environmental impact statements which involve any water supply systems, both surface and groundwater; reviews navigation permits and water quality certificates, especially when related to the petroleum and chemical industries; enforces industrial spill prevention programs; is involved with formulating spill contingency plans and legislation to increase the Office's capacity to react to spills; and conducts educational programs throughout the state to help industries, local and county governments, and citizen groups to understand what must be done in the event of an oil spill.

The Spill Response Section of the OSS responds to all reports of spills of oil or other hazardous materials. By law, notification of any oil spills must be made to this Office. During normal working hours, the number to call is 609-292-5560. The Office also responds via a 24-hour hotline (609-292-7172).

If an oil spill occurs, the Office of Special Services must be notified and given as much information as possible including the time and date of spill, the source or location, the type of product spilled and amount (if possible), the reason for spill (if known), and the likelihood of the spilled material entering a potable water supply. This information is recorded at the OSS and the spill is classified as major, medium, or minor, depending on the number of gallons spilled, the type of material, and the nature of the receiving waters. Its classification determines if a spill requires immediate on-scene attention from OSS personnel.

The two most important elements in responding to an oil spill are containment and clean-up. If a spill requires immediate attention, the OSS sends personnel to the scene of the

spill to coordinate containment and clean-up activities. Since the OSS has no in-house equipment, containment and clean-up are by private contractor. A list of private contractors kept on file by the OSS is given to the party responsible for a spill. If that party refuses to engage a contractor to clean up a spill, the OSS is empowered to do so and charge for the costs. The state has access to five stockpiles of privately owned equipment which it may rent as needed and charge to the party responsible for the oil spill.

If the source of a spill is unknown, the OSS contacts the appropriate federal agency and is issued a project number which allocates the necessary monies for clean-up and restoration costs. The Federal Water Pollution Control Act of 1972 provides a system whereby a state affected by oil spill discharges may be reimbursed for the containment measures, for the removal of oil and hazardous substances from water and shoreline areas, both public and private, for monitoring activities, and for special treatment techniques to protect public water supplies and wildlife resources from damage.

The state law which requires notification of an oil spill also provides for penalities in the form of fines. The law provides for up to $3,000 per day fine for the failure to notify the Department, up to $6,000 per day fine for having the spill, and up to $1,000 per day for discharging into an actual or potential potable water supply.

The company or companies responsible for the spill are also liable, up to 14 million dollars, for the cost of clean-up if the spill was accidental or up to the total cost of clean-up if the spill was deliberate. This determination is made by the State Pollution Investigator on the scene.

Response to oil spills from local governments is growing with increased knowledge about oil spill containment and clean-up measures. Municipal fire and police departments have been instructed on correct oil spill containment and clean-up procedures by the state Office of Special Services and are therefore becoming more active with small local spills. In addition, municipalities are beginning to require preventative measures as part of their local ordinances.

Civil Defense Units at the county level have compiled inventories of all available municipal police, fire and private contractor equipment and services which can be brought to bear in emergency situations. These Units also provide emergency communications services.

Although spills can occur on three different types of surfaces - water, surfaced land areas, and soil - the recovery procedures for spills on each are based on the same basic principle, that of containment and removal.

If oil or a hazardous chemical is spilled on water, and if it is an insoluble product, it may be contained by various mechanical devices such as floating booms, sorbent booms, filter fences, or air barriers; the appropriate device is selected according to weather and current conditions. These devices serve to enclose the spilled material within a manageable area.

Once oil is contained, it must be removed. Insoluble oil is most commonly removed by mechanical devices which utilize its inability to mix with water. The oil floats on top of the water and can be removed by suction, by collection in a sump region, or by absorption into sorbent surface devices. Oil or hazardous materials which are water soluble products will mix with the water and therefore cannot be contained or removed.

When a spill has occurred on a surfaced land area, such as asphalt, and is confined to one area, the oil may be skimmed or vacuumed from the surface. If the oil is allowed to flow from the surface into a potable water supply, the appropriate water company or treatment plant is notified and necessary measures are taken to combat the problem. If the oil enters a sewage treatment plant, the plant tries to contain the oil as it comes in. Vacuum trucks are most commonly used to remove the oil.

When oil is spilled on soil, some of the material is absorbed by the soil particles and the remainder leaches to the groundwater where it floats on the water. The oil may be recovered if the groundwater table is high and the material is an insoluble product. If the groundwater level is deep or the spilled material is water soluble, it cannot be recovered and the aquifer is lost for use as a potable water supply.

It is important that all oil spills be reported and that the proper clean-up measures be taken. Oil should never be flushed into streams or sewers, but should be contained in one area and removed by absorbant materials or vacuuming. The state and federal oil spill programs follow this procedure and the county and local governments are now trained to do the same.

With the increase of oil spills in New Jersey, a well-defined, multi-governmental response capacity is necessary. Federal and state operations are well developed in New Jersey, but they need the continuing assistance of everyone concerned. Given prompt reporting of spills and proper clean-up measures, oil spill damage can be greatly reduced.

To Report An Oil Spill,

CALL: (609) 292-5560 - Working Days
(609) 292-7172 - 24-Hour Hotline

New Jersey Spill Compensation and Control Act

New Jersey has enacted a Spill Compensation and Control Act (c.141 L. 1976) to offer financial protection both in clean-up guarantees and in compensation for financial loss. The major features of the new law, are as follows:

1. It prohibits the discharge of hazardous substances including but not limited to oil on both the land and waters of the State. It covers spills and discharges anywhere in New Jersey including those which affect groundwater supplies and also protects the state from damage generated outside the state but which affects New Jersey's land and waters.

2. A $25 million fund financed by a 1¢/barrel tax on the transfer of hazardous substances from major facilities will be used to compensate damaged parties.

3. Dischargers are strictly liable for cleanup costs without limit.

4. Private individuals and municipalities and the resort industry are entitled to payment from the fund for a wide range of damages, including restoration or replacement of personal property, loss of tax revenue for up to one year, and loss or impairment of earning capacity.

5. When appropriated by the Legislature, money from the fund may be used to finance research and demonstration projects concerning all types of ocean pollution.

6. Persons violating the act are liable for a penalty of $25,000 for each offense.

Finally, the bill reserves to the Commissioner of Environmental Protection the right to determine to what degree legislation enacted by the federal government in this area provides the needed protection for citizens of the State and to make appropriate recommendations to the legislature to amend the state law in the event federal laws are enacted which may preempt the state law.

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