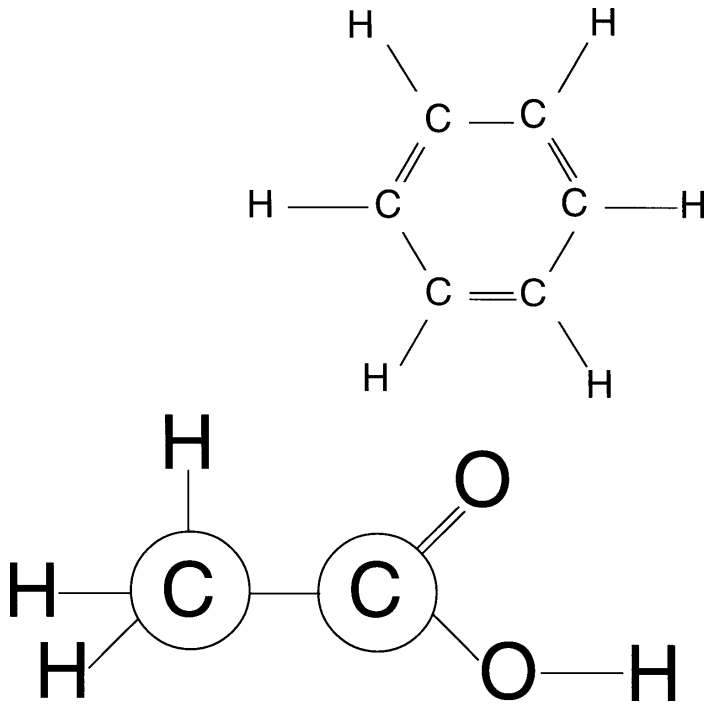
TNRCC

November 1997
RG-290

State of Texas Oil and Hazardous Substances Spill Contingency Plan



Field Operations Division

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

printed on
recycled paper

State of Texas Oil and Hazardous Substances Spill Contingency Plan

Prepared by
Field Operations Division

RG-290
September 1997

Barry R. McBee, *Chairman*
R. B. Ralph Marquez, *Commissioner*
John M. Baker, *Commissioner*

Dan Pearson, *Executive Director*

Authorization for use or reproduction of any original material contained in this publication that is, not obtained from other sources is freely granted. The commission would appreciate acknowledgment.

Published and distributed
by the
Texas Natural Resource Conservation Commission
PO Box 13087
Austin TX 78711-3087

The TNRCC is an equal opportunity/affirmative action employer. The agency does not allow discrimination on the basis of race, color, religion, national origin, sex, disability, age, sexual orientation or veteran status. In compliance with the Americans with Disabilities Act, this document may be requested in alternate formats by contacting the TNRCC at (512)239-0028, Fax 239-4488, or 1-800-RELAY-TX (TDD), or by writing P.O. Box 13087, Austin, TX 78711-3087.

Acknowledgments

The TNRCC wishes to acknowledge the substantial contributions of staff with the agency and within the Railroad Commission of Texas and the Texas General Land Office in the compilation and content review of this publication. Special thanks are extented to the following individuals:

Mr. David Barker, TNRCC Emergency Response Unit
Mr. John Tintera, Railroad Commission of Texas
Mr. Harold Craig, Railroad Commission of Texas
Ms. Ingrid Hansen, Texas General Land Office
Ms. Leah Tunnell, Texas General Land Office

Table of Contents

Table of Contents (continued)

Table of Contents (continued)

EMERGENCY ASSISTANCE AND ADVICE

State of Texas	**24-Hour Phone**
State of Texas Environmental Emergency Hot Line for reporting spills to the TNRCC and coastal oil spills to the GLO and RRC	1-800-832-8224 (24-hour)
Texas Natural Resource Conservation Commission (TNRCC)	
TNRCC Emergency Response Team	512/239-2507 (24-hour)
Oil and Hazardous Substance Spills	1-800-832-8224 (24-hour)
General Land Office (GLO) Coastal Oil Spills	1-800-832-8224 (24-hour)
Railroad Commission of Texas (RRC) Natural Gas and Hazardous Liquid Pipeline Emergencies LPG (Liquified Petroleum Gas) Emergencies Crude Oil Spills	512/463-6788 (24-hour)
Texas Parks and Wildlife Department (TPWD)	512/389-4848 (24-hour)
Texas Department of Health (TDH) Radiation Emergency Reporting	512/458-7460 (24-hour)
Texas Poison Center	1-800-POISON-1 (24-hr)
Governor's Division of Emergency Management (DEM)	512/424-2000 (24-hour)
Communications Center	512/424-2277 (24-hour)

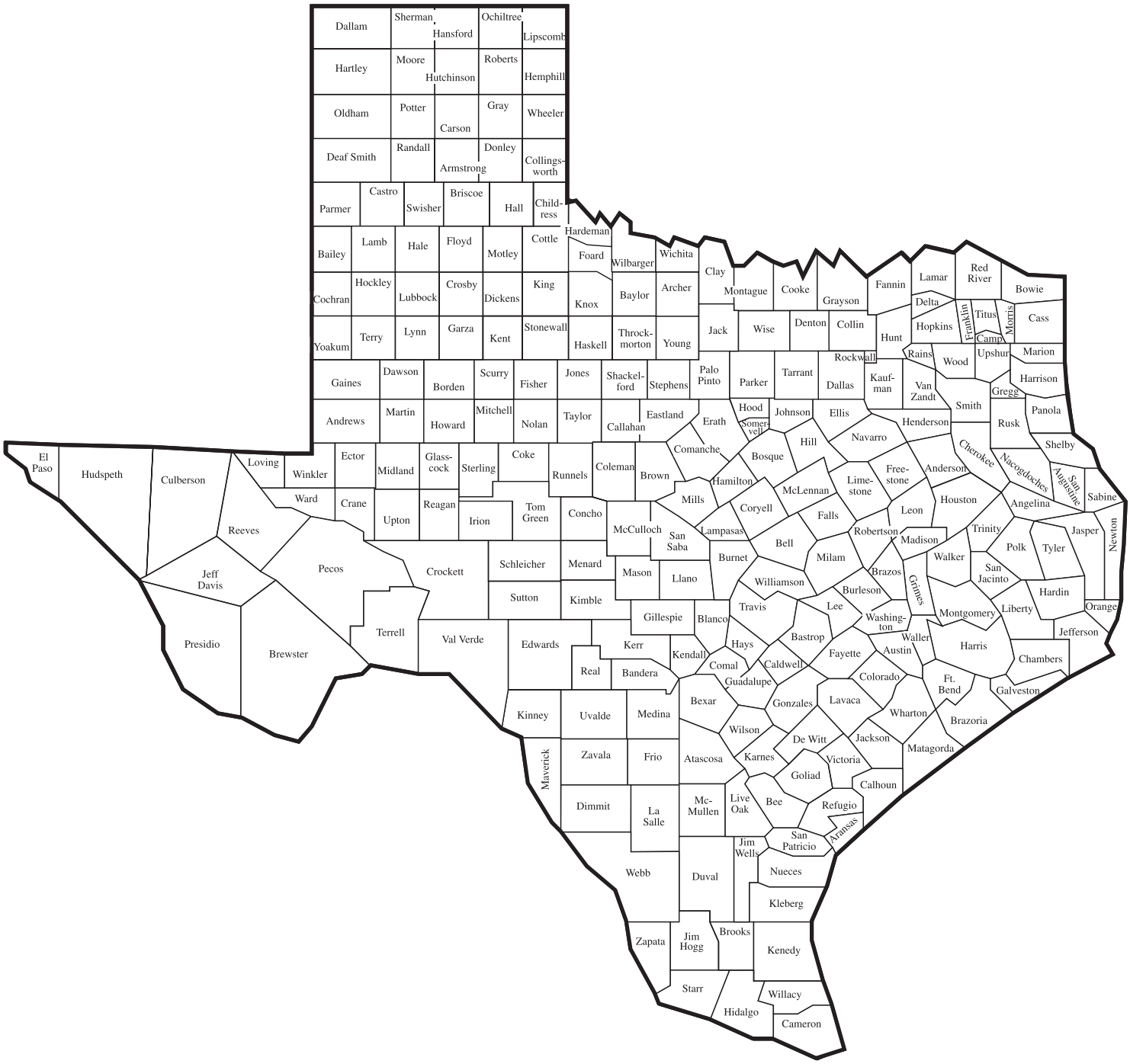
National	
National Response Center (NRC)—24-hour numbers	
for federal spill reporting	1-800-424-8802
for reporting FREON releases to federal government	1-800-296-1996
U.S. Environmental Protection Agency (EPA) Region VI—Dallas, Texas 24-hour spill reporting hotline	214/665-2222
National Weather Service	817/334-3401
CHEMTREC (Chemical Transportation Emergency Center)	800/424-9300
CHLOREP (Chlorine incidents)	800/424-9300
NACA Pesticides Safety Team Network	800/424-9300
Chemical Referral Center	800/CMA-8200

This page intentionally left blank.

State Agency Maps
and
Service Areas

This page intentionally left blank.

Texas Counties



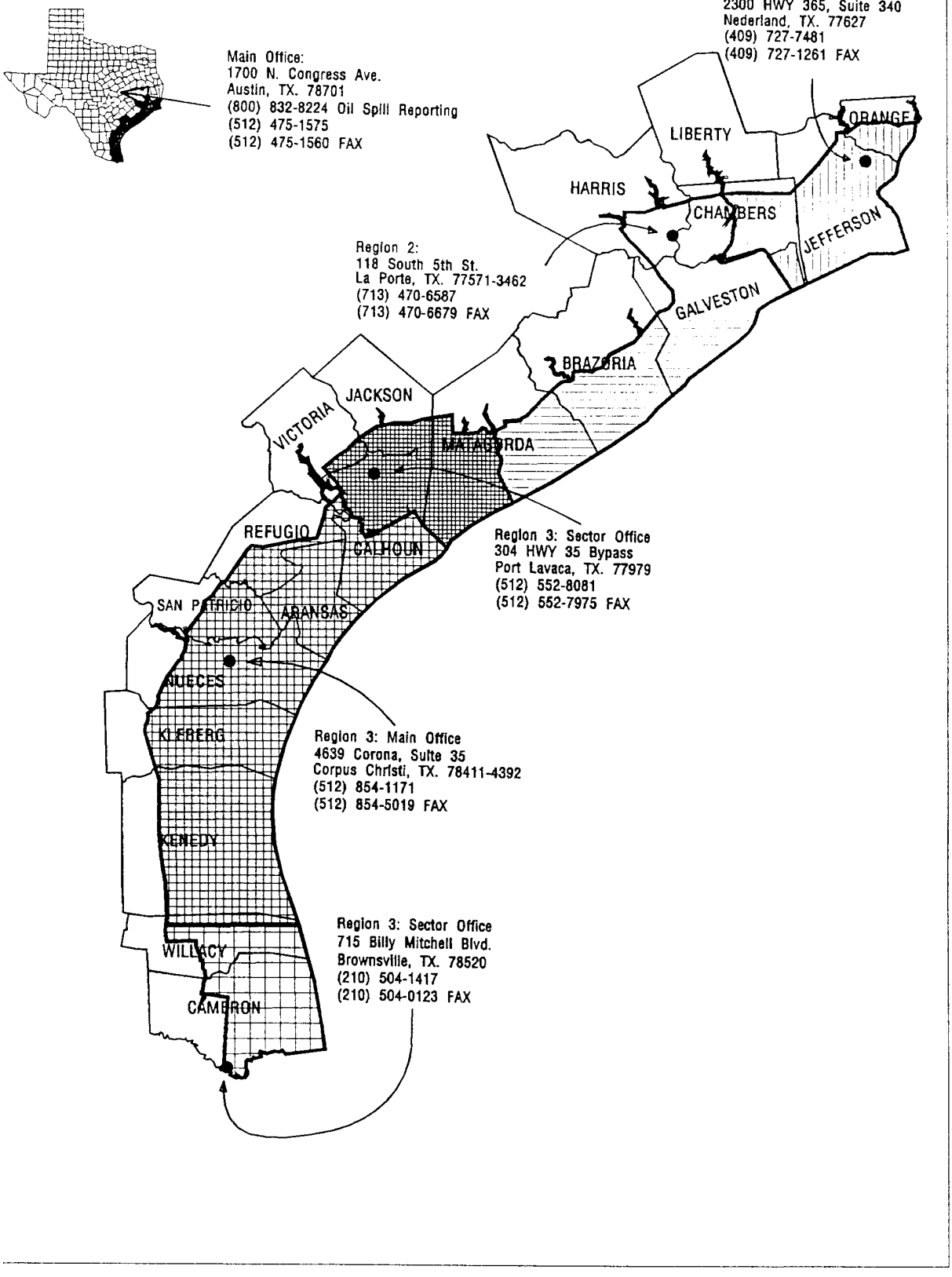
This page intentionally left blank.

TNRCC Regional Offices

For the most current regional map and office listing refer to:

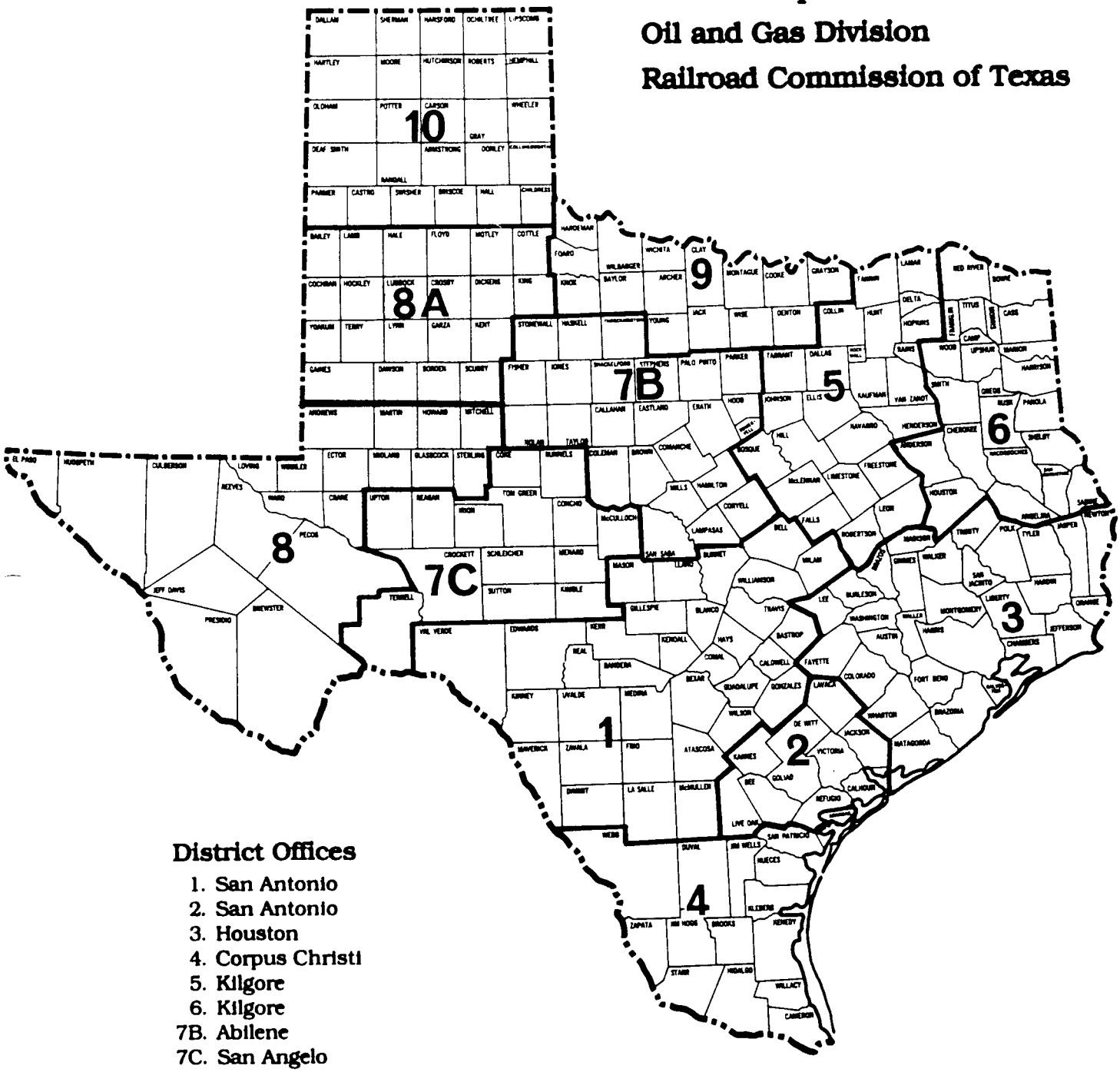
ftp://ftp.tnrcc.state.tx.us/pub/ExecutiveDirector/AgencyCommunications/topdoc/gi/002.pdf

GLO Oil Spill Program Jurisdictions and Office Locations



This page intentionally left blank.

District Map
Oil and Gas Division
Railroad Commission of Texas



District Offices

1. San Antonio
2. San Antonio
3. Houston
4. Corpus Christi
5. Kilgore
6. Kilgore

7B. Abilene

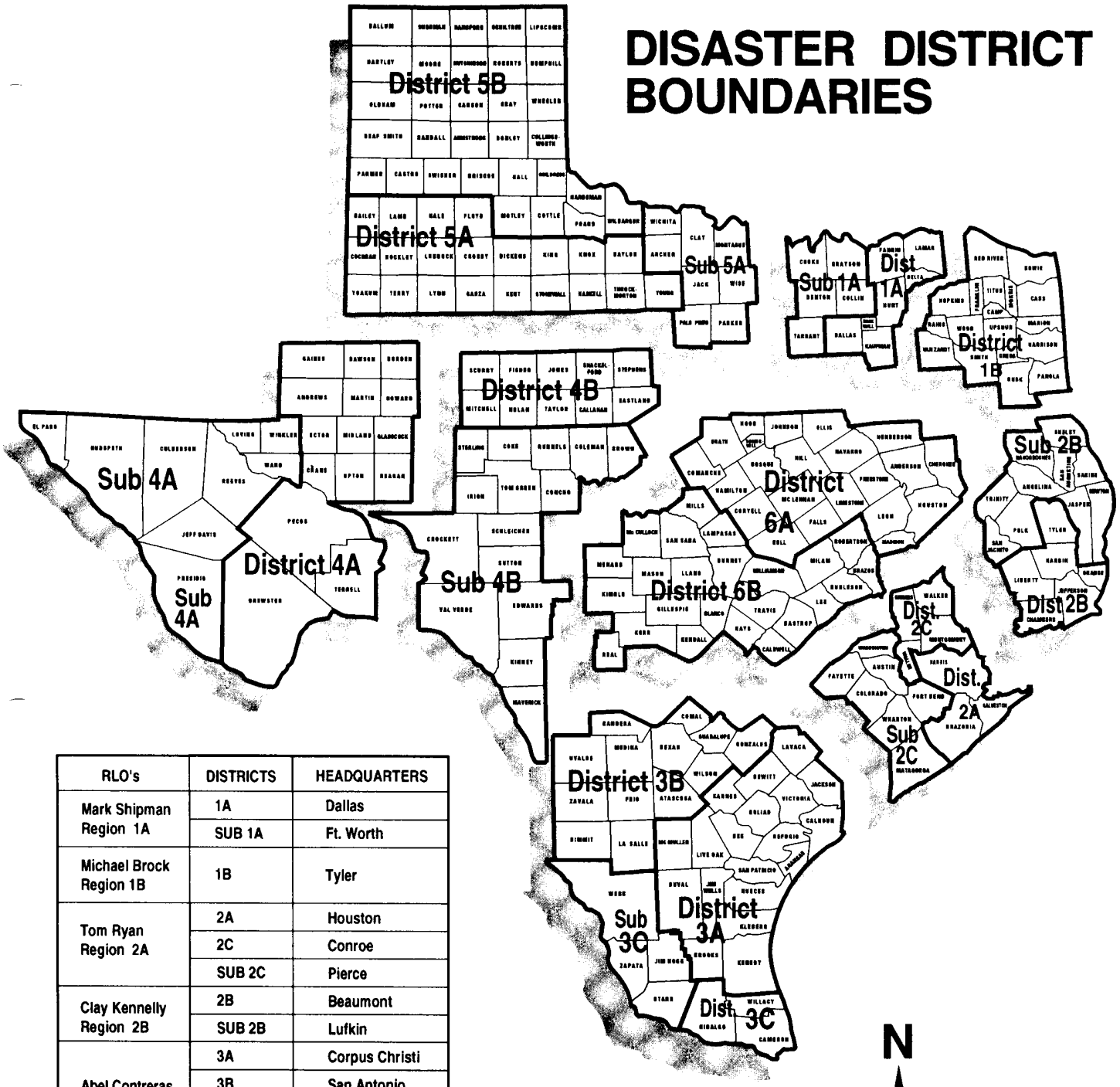
7C. San Angelo

8A. 8. Midland

9. Wichita Falls
10. Pampa

This page intentionally left blank.

DISASTER DISTRICT BOUNDARIES



RLO's	DISTRICTS	HEADQUARTERS
Mark Shipman Region 1A	1A	Dallas
	SUB 1A	Ft. Worth
Michael Brock Region 1B	1B	Tyler
Tom Ryan Region 2A	2A	Houston
	2C	Conroe
	SUB 2C	Pierce
Clay Kennelly Region 2B	2B	Beaumont
	SUB 2B	Lufkin
Abel Contreras Region 3	3A	Corpus Christi
	3B	San Antonio
	3C	McAllen
	SUB 3C	Laredo
Joe Crabtree Region 4A	4A	Midland
	SUB 4A	El Paso
Bobby Densman Region 4B	4B	Abilene
	SUB 4B	San Angelo
Steve Reddish Region 5	5A	Lubbock
	SUB 5A	Wichita Falls
	5B	Amarillo
Steve Vaughn Region 6	6A	Waco
	6B	Austin

This page intentionally left blank.

Preface

The *State of Texas Oil and Hazardous Substances Spill Contingency Plan* is provided to strengthen and improve the response mechanism for discharges or spills of oil and hazardous substances within the territorial limits of the state. Primary emphasis has been placed on spills that require immediate removal actions under the state's supervision in accordance with state statutes, the Oil Pollution Act of 1990, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Texas Water Code, the Oil Spill Prevention and Control Act of 1991 (OSPRA), the Texas Health and Safety Code, and the Federal Response program.

This plan provides general guidance for a coordinated response to oil and hazardous substance spills and outlines notification procedures by which spills shall be reported to State and federal agencies. It is applicable statewide and provides a ready reference for generalized initial response actions as well as rules promulgated by the various state agencies.

It is important to note that this *State of Texas Oil and Hazardous Substances Spill Contingency Plan* will not take the place of detailed emergency management plans or reduce requirements for spill contingency and response plans as required by the Texas Disaster Act of 1975, Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Oil Spill Prevention and Response Act of 1991 (OSPRA), and rules promulgated by the various state agencies. Response to a spill in the absence of a plan may be improper or unnecessarily delayed which may subject the person responsible to additional penalties under the state's authorities.

This page intentionally left blank.

Purpose

It is the policy of the state of Texas to keep its natural resources held in trust as pristine as possible, taking into account the multiple uses by public and private interests and the protection of the environment. Spills, discharges, and releases of oil, hazardous substances, or other substances endanger the natural resources of the state. Additionally, it is the policy of this state to *prevent* the spill, discharge, or release of oil, hazardous substances, or other substances into the waters in the state, to cause the removal of such spills, discharges, or releases *without undue delay*, and to protect the air quality of the state. The Texas Legislature intends to exercise the police power of the state to protect Texas' natural resources and environmental quality.

The *State of Texas Oil and Hazardous Substances Spill Contingency Plan* (State Spill Contingency Plan) establishes a means to allow state and federal agencies, industry, local governments, and other involved or affected parties to work together in spill response. The State Spill Contingency Plan provides guidance for a coordinated response to spills of oil, hazardous substances, or other substances or a release or threatened release of any such substances and to outline notification procedures by which these incidents shall be reported to state and federal agencies. The regulated public needs to know what to expect; state agencies need to commit to a unified plan that accommodates the varied roles and responsibilities of a multi-agency approach to spill response; and consultants, attorneys, and others need to know how to advise their clients.

While the State Spill Contingency Plan does not carry the force of law, it does reflect state procedure and guidance and identifies those policies and requirements set forth in statutes and rules. Those state agencies and other parties involved in spill response are expected to work to implement the plan. Section 3, "Definitions," must be carefully reviewed for a full understanding of the intent and application of the State Spill Contingency Plan.

The State Spill Contingency Plan is intended to cover spills of oil, hazardous substances, or other substances for the entire state of Texas, including all inland areas, waters, and coastal waters to the three-league state boundary. The plan will also serve as a guide for state response to spills in federal waters, other states, or other countries when state waters are threatened.

Nothing in this plan absolves or excuses the party responsible for any spill from complying with applicable local, state, or federal regulations concerning spills, discharges, or releases of oil, hazardous substances, or other substances. Neither is it intended that this plan will supersede any agency s rules.

Introduction

This plan provides the necessary framework to effectively organize and coordinate the overall state response to spill incidents by addressing the key policies, statutes, and the roles and responsibilities of industry and state agencies. A functional guideline to determining agency jurisdiction is followed by a discussion of each agency's jurisdiction, including definitions of key terms and notification requirements.

Public Policy and Legislative History

It is the policy of the state of Texas to take all appropriate action to protect the natural resources of the state from oil and hazardous substance spills or releases. As a consequence of this policy, Texas state agencies, under both broad grants of power to prevent pollution and specific legislation to develop contingency plans, have come together to draft a state spill contingency plan to strengthen and improve state response to spills or releases of oil and hazardous substances.

The *State of Texas Oil and Hazardous Substances Spill Contingency Plan* is being published as several key regulatory changes are being implemented. These changes have been incorporated to the greatest extent possible in this plan; however, the reader is cautioned that new rules or regulations may have been implemented subsequent to the publication of this plan.

The State Spill Contingency Plan will be reviewed on a regular basis to incorporate needed changes and new information. Comments concerning the content of the plan may be directed to:

Mr. Don Fawn
Emergency Response Unit MC 176
TNRCC
PO Box 13087
Austin TX 78711

512-239-2515
E-mail: *oce@tnrcc.state.tx.us*

Agency Roles and Responsibilities

The state of Texas relies upon a network of state agencies for state response to spills or releases. At first glance, the multi-agency organizational structure can seem confusing to the regulated public. The decision as to which agency might have jurisdiction over a particular incident is simplified if one recognizes that the roles and responsibilities of the agencies flow from the classification of the spill. Spills can be classified by the type of substance (crude oil, refined petroleum product, or hazardous substance), the source of the spill (from oil and gas exploration or production facilities, an industrial facility, or a tanker), or by the geographic location of the spill (onto land and inland waters or into coastal waters). In coastal waters or along coastal shorelines, the size of an oil spill may direct which agency has jurisdiction. Additionally, spills of a disastrous magnitude will require the assistance of the Division of Emergency Management to coordinate activities.

Spills of hazardous substances have historically been and continue to be under the jurisdiction of the Texas Natural Resource Conservation Commission, as have spills of refined petroleum products. Because the Railroad Commission has authority over the exploration and production of oil, gas, and geothermal operations and pipelines that transport crude oil and natural gas, crude oil spills from exploration and production operations fall within its purview. The General Land Office has long been entrusted with the management of state coastal submerged lands and has been charged with the responsibility of prevention of and response to coastal oil spills; therefore, a spill from an oil tanker or an offshore oil rig falls within its jurisdiction. However, in the coastal area, the minor spills of crude oil (240 barrels or less) from oil and gas exploration or production facilities remain the responsibility of the Railroad Commission. Coastal spills of hazardous substances or other pollutants are under the jurisdiction of the Texas Natural Resource Conservation Commission. The above is merely a rule-of-thumb sketch of the responsibilities of state agencies based on the classification of a spill, and—the reader must remember—there are always exceptions to the rule.

Other agencies also have a significant role to play in the protection of the state's natural resources. The Texas Parks and Wildlife Department is concerned with the restoration and preservation of natural resources damaged by any spill, whether coastal or inland. The Texas Department of Health is charged with the responsibility for threats to human health caused by contamination of water supplies, shellfish, and finfish resources. The Texas Department of Public Safety provides communication support for spills of disastrous proportions.

Following is an outline of each agency's legislative mandate concerning spills, releases, discharges, or threatened releases of oil, hazardous substances, or other pollutants.

Statutory Authorities and Jurisdictions

Texas Natural Resource Conservation Commission

Section 26.127 of the Texas Water Code establishes the Texas Natural Resource Conservation Commission (TNRCC) as the principal authority in the state on matters relating to the quality of water in the state. In addition, the Hazardous Substances Spill Prevention and Control Act (Chapter 26, Subchapter G, §26.262, Texas Water Code) stipulates that it is the policy of this state to prevent the spill or discharge of hazardous substances into the waters in the state and to cause the removal of any spills and discharges without undue delay. This subchapter shall be construed to conform with Chapter 40 of the Natural Resources Code.

The TNRCC is the state s lead agency in spill response to certain inland oil spills, all hazardous substance spills, spills of other substances which may cause pollution, as well as any releases of substances which may adversely impact air quality. The TNRCC shall conduct spill response for the state, and shall otherwise administer the provisions of the Act. The Act also authorizes the executive director of the TNRCC (hereinafter referred to as the *executive director*) to act independently if no federal on-scene coordinator is present or no action is being taken by an agency of the federal government in response to a spill or discharge of oil, hazardous substances, or other substances. The executive director's response may include actions to abate and remove the spill.

Under the authority of certain provisions of Chapter 361 of the Texas Health and Safety Code, the TNRCC has additional removal authorities with respect to cleanup of a release or threatened release of hazardous substances.

The TNRCC has been designated by the governor of Texas, in accordance with the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), (42 U.S.C. §9601, et seq.); the Superfund Amendments and Reauthorization Act of 1986 (SARA), (Public Law 99-499); the Clean Water Act, as amended (33 U.S.C. §1251, et seq.); and the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), as the state's lead agency for "Superfund" activities and as one of the state's representatives to the federal Regional Response Team (RRT). In accordance with 40 CFR Part 300.32(b), the RRT serves as the regional body for planning and preparedness before a response action is taken and for coordination and advice during such actions.

Further, the governor of Texas has designated the TNRCC as one of the three state trustees for damage assessment and restoration of the state s natural resources that may be affected by a spill, discharge, or release. The TNRCC is the designated trustee for air, surface water including sediments, groundwater, and drinking water resources. The TNRCC as a natural resource trustee has the obligation to protect and preserve all trust resources of the state of Texas.

The state's municipal hazardous waste and industrial solid waste program is implemented by Title 30 Texas Administrative Code (30 TAC) Chapter 335, adopted under the authority of the State Solid Waste Disposal Act (Texas Health and Safety Code Ann., Chapter 361, Vernon Supp. 1990). Chapter 335 includes the requirement that any person who conveys or transports hazardous waste by truck, ship, pipeline or other means, shall clean up any hazardous waste discharge or release or take such action as may be required or approved by the TNRCC so that the hazardous waste discharge or release no longer presents a hazard to human health or the environment (see 30 TAC §335.93). These Rules also require that owners and operators of hazardous industrial solid waste storage, processing, or disposal facilities must maintain and operate such facilities so as to minimize the possibility of a fire, explosion, or any unplanned sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil, or water which could threaten human health or the environment. Additionally, each owner or operator of a hazardous industrial solid waste facility must have a contingency plan for the facility designed to minimize the above possibilities (see 30 TAC §335.152, incorporating by reference Title 40 Code of Federal Regulations Part 264).

The state's regulation of underground and aboveground storage tanks, as administered by the Petroleum Storage Tank Program, is authorized by 30 TAC Chapter 334, promulgated under the Texas Water Code §§26.341–26.363. This program establishes minimum standards and procedures to protect and maintain the quality of the state's groundwater and surface water resources from environmental contamination that could result from any releases of harmful substances stored in such tanks. Authority was granted to assess and collect fees for deposit into a fund which could then be used for remediation purposes. In addition to ongoing preventive and remedial actions, emergency orders may be issued to the owner and/or operator of an underground or aboveground storage tank if there is an actual or threatened release of a regulated substance (Texas Water Code §26.354). Emergency orders may also be issued if it is determined that more expeditious corrective action than is otherwise provided for is necessary to protect the public health and safety or the environment from harm. Orders issued under this provision may prohibit a person from allowing or continuing the release (or

threatened release) and require the person to take the actions necessary to eliminate it. Additionally, the TNRCC is authorized to undertake corrective action measures under any circumstances in which the commission considers it necessary to protect the public health and safety or the environment (Texas Water Code §26.3511).

Under the authority of the Texas Clean Air Act (Texas Health and Safety Code, Chapter 382, Vernon Supp. 1990), the TNRCC is charged with safeguarding the state's air resources from pollution by controlling or abating air pollution and emissions of air contaminants, consistent with the protection of public health, general welfare, and physical property, including the aesthetic enjoyment of air resources by the public and the maintenance of adequate visibility. Under 30 TAC §101.6, the TNRCC also requires facilities to report to the regional office and all local air pollution control agencies all upsets that cause unauthorized air emissions that exceed a reportable quantity and make a record of all upsets that cause unauthorized air emissions. Any spill or discharge required to be reported under the Spill Prevention and Control Rules (30 TAC §§327.1–327.5) is not required to be reported under §101.6—only the record is required.

General Land Office

The Texas General Land Office (GLO) is the state s lead agency for response to oil spills that enter or threaten to enter coastal waters. State discharge response and cleanup operations resulting from unauthorized discharges of oil that enter or threaten to enter coastal waters are administered and directed by the GLO pursuant to the Oil Spill Prevention and Response Act of 1991 (OSPRA), Texas Natural Resources Code §40.001 et seq.

OSPRA defines *coastal waters* as "the waters and bed of the Gulf of Mexico within the jurisdiction of the state of Texas, including the arms of the Gulf of Mexico subject to tidal influence, and any other waters contiguous thereto that are navigable by vessels with a capacity to carry 10,000 gallons or more of oil as fuel or cargo." Thus, the jurisdiction of the GLO extends beyond simply waters that are subject to tidal influence.

OSPRA defines *unauthorized discharge of oil* as "any discharge of oil, or any discharge of oil emanating from a vessel into waters adjoining and accessible from coastal waters, that is not authorized by a federal or state permit."

OSPRA defines *discharge of oil* as "an intentional or unintentional act or omission by which harmful quantities of oil are leaked, spilled, pumped, poured, emitted, or dumped into or on coastal waters or at a place adjacent to coastal waters where, unless controlled or removed, an imminent threat of pollution to coastal waters exists."

The GLO has been designated by the governor of Texas as a natural resource trustee under the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C.A. §§ 9601 et seq., and the Oil Pollution Act of 1990, 33 U.S.C.A. The natural resources for which the GLO is responsible are those related to state-owned lands. The GLO, as a natural resource trustee, has the obligation to protect and preserve all trust resources of the state of Texas.

Sections 51.121 and 51.291 of the Texas Natural Resources Code also give the **GLO permitting**

authority over pipelines and platforms located on state lands, and antipollution requirements are built into GLO contracts and rules.

Railroad Commission of Texas

The Railroad Commission of Texas (RRC) has spill response authority for spills or discharges from all activities associated with the exploration, development, or production, including storage or transportation, of oil, gas, and geothermal resources (Texas Natural Resources Code §§85.042, 91.101, and 91.601). Spills or discharges from brine mining or surface mining are also under the jurisdiction of the RRC (Texas Revised Civil Statutes Ann. Art. 5920-11 (Vernon) and Chapter 131 of the Texas Natural Resources Code). Any spill or discharge, whether hazardous or nonhazardous, that emanates from an oil, gas, or geothermal resource exploration or production facility or brine mine or surface mine is under the jurisdiction of the RRC.

Activities associated with the exploration, development, and production of oil or gas do not include refining or manufacturing processes; however, the processing of natural gas or natural gas liquids at gasoline plants or at natural gas or natural gas liquids processing plants is subject to the jurisdiction of the RRC with one narrow exception concerning waste from gas processing activities. Until the RRC receives delegation of RCRA authority, waste from gasoline plants, natural gas or natural gas liquids processing plants, pressure maintenance plants, or repressurizing plants **and that is a hazardous waste under RCRA** is under the authority of the Texas Natural Resource Conservation Commission. If the waste from these gas processing plants is **not** hazardous under RCRA, then the waste is under the jurisdiction of the RRC (Texas Natural Resources Code §91.101).

Prevention of pollution from spills or discharges of hazardous or nonhazardous materials from crude oil and natural gas pipelines is under the jurisdiction of the RRC. The RRC does not have pollution prevention authority over pipelines carrying refined petroleum products such as gasoline, diesel, and other fuel oil.

A spill of crude oil into coastal waters may involve both the RRC and the GLO. Although the GLO is the lead agency for spills of oil, including crude oil, into coastal waters or that pose an imminent threat to coastal waters if not abated, the RRC is on-scene coordinator for coastal spills of 240 barrels or less (Texas Natural Resources Code §40.008).

The RRC also has pipeline safety jurisdiction over pipelines carrying carbon dioxide, natural gas, and hazardous liquids. The Pipeline Safety Division of the RRC is charged with ensuring the safe operation of such pipelines (Texas Revised Civil Statutes, Article 6053-1 Texas Natural Resources Code, Chapter 117). Therefore, personnel from the RRC's Pipeline Safety Division may be present at the scene of a spill to investigate concerns related to the safe operation of the pipeline and to determine a probable cause of the spill.

Texas Parks and Wildlife Department

The Texas Parks and Wildlife Department (TPWD) is the state agency with the primary responsibility for protecting the state s fish and wildlife resources (Chapter 12, Texas Parks and Wildlife Code). In addition to TPWD authority granted under Chapter 26 of the Texas Water Code, §12.0011 of the Texas Parks and Wildlife Code states that TPWD's resource protection activities include investigating fish kills and any type of pollution that may cause loss of fish and wildlife resources, taking necessary action to identify the cause and party responsible for the fish kill or pollution, estimating the monetary value of lost resources, and seeking restoration through presentation of evidence to the agency responsible for permitting or through county or district court.

By designation of the Governor of Texas, the TPWD is also a state natural resource trustee. The natural resources for which the TPWD is responsible are the biota, i.e., aquatic life, wildlife, birds, vegetation, etc. The TPWD, as a natural resource trustee, has the obligation to protect and preserve all trust resources of the state of Texas.

Section 11.071 of the Texas Parks and Wildlife Code gives the TPWD the authority to regulate the use of Department lands for oil, gas, and other mineral recovery and associated activities as the TPWD considers reasonable and necessary to protect the surface estate of Department lands or to protect human health or property. Department lands include state parks, wildlife management areas, and natural areas.

Chapter 86 of the Texas Parks and Wildlife Code authorizes the TPWD to regulate, control, and protect marl and sand of commercial value and all gravel, sand, and mudshell located within the tidewater limits of the state and on islands within those limits, and within the freshwater areas of the state not embraced by a survey of private land and on islands within those areas.

Texas Department of Public Safety

The Texas Department of Public Safety (DPS) has adopted rules relating to the reporting of all transportation incidents involving releases of reportable quantities of hazardous materials and on-site coordination of transportation emergencies on public roads and railroads (Texas Government Code Ann., §411.018, Vernon Supp. 1990). These rules specify the DPS's role in on-site coordination and outline a written report requirement for carriers involved in hazardous materials transportation incidents (see 37 TAC §§3.101 and 3.102).

During transportation incidents involving hazardous materials, the DPS official, as on-site coordinator, is responsible for on-site coordination of transportation emergencies for all unincorporated areas and may assume the on-site coordination role within cities when requested to do so by local government (37 TAC §3.101(a)). The DPS law enforcement officer who is the first responder on-site is responsible for the on-site coordination (37 TAC §3.101(b)). The DPS on-site coordinator is authorized to make emergency rules when normal operating procedures prove inadequate (37 TAC §3.101(d)). DPS coordination responsibilities will be performed until relieved by appropriate DPS authority or until the incident is concluded.

Texas Department of Transportation

The Texas Department of Transportation (TxDOT) and the Texas Natural Resource Conservation Commission, as provided in §26.264(f) of the Texas Water Code, have developed a contractual agreement whereby TxDOT personnel, equipment, and materials may be used in state-funded cleanup actions. All expenses and costs resulting from cleanup activities are subject to reimbursement from the Texas Spill Response Fund.

The Governor of Texas and the Governor s Division of Emergency Management

If a spill presents or threatens to become a disaster, the Governor of Texas may utilize the authority granted under the Texas Disaster Act of 1975 (Texas Government Code Ann., Chapter 418, *Vernon Supp.* 1990) to make available and bring to bear all resources of the state to prevent or lessen the impact of such a disaster. As defined in the Texas Disaster Act of 1975, *disaster* means the occurrence or imminent threat of widespread or severe damage, injury, or loss of life or property resulting from any natural or man-made cause or other public calamity requiring emergency action. A disaster is declared by executive order or proclamation if the governor finds that a disaster has occurred or that the occurrence or the threat of a disaster is imminent. Such an executive order activates the recovery and rehabilitation phase of the *State of Texas Emergency Management Plan*.

The Texas Disaster Act of 1975 authorizes the governor to establish an Emergency Management Council to advise and assist the governor in all matters relating to disaster preparedness, emergency services, energy emergencies, and disaster recovery. The Emergency Management Council is composed of the heads of all the state's agencies, boards, and commissions and representatives of organized volunteer groups whose legal functions relate to important phases of emergency management (Texas Government Code Ann., §418.013, Vernon Supp. 1990). The director of the DPS also serves as the director of the Governor's Division of Emergency Management (DEM) and chairs the Emergency Management Council.

Under the *State of Texas Emergency Management Plan*, the Emergency Management Council is responsible for the coordination and utilization of all state resources during a disaster. Operations of the Council are coordinated by the Governor's Division of Emergency Management (DEM).

Under the *State of Texas Emergency Management Plan*, emergencies concerning spills or discharges of hazardous substances, or the release or threatened release of hazardous substances, radiological emergencies, and release which may adversely impact the state's air quality, are addressed under "Oil and Hazardous Materials Support Function." The Texas Natural Resource Conservation Commission serves as the lead agency for the oil and hazardous materials support function with support being provided by the General Land Office and the Railroad Commission of Texas.

Definitions

The environmental regulatory authorities of the various state agencies are based on an equally diverse body of legislation. The following definitions are compiled from several state statutes, rules, and also summarize practical operational concepts. Each definition is followed by the abbreviation of the regulatory agency that adheres to that particular definition. *ALL* indicates the general acceptance of that definition by all agencies.

Acceptance As used in the context of accepting analytical results from foreign laboratories, *acceptance* means that the data generated by foreign laboratories are potentially useful in the decision-making process; however, it does not constitute "validation" of the data or "accreditation" of the laboratory. *(TNRCC)*

Activity or facility Includes any and all means of transport whether by pipeline, barge, ship or vessel, truck, or other vehicle, as well as any stationary facility including, but not limited to, waste treatment facilities, tank farms, storage areas, sludge pits, and/or industrial solid waste sites. *(TNRCC)*

Barrel 42 United States gallons of oil at a temperature of 60 degrees Fahrenheit. May be used to refer to various chemicals in 55-gallon barrels or drums. When used to refer to beer, a barrel is 31 gallons. *(ALL)*

Coastal waters All tidally influenced waters extending from the head of tide in the arms of the Gulf of Mexico seaward to the three–marine league limit of Texas' jurisdiction; and non-tidally influenced waters extending from the head of tide in the arms of the Gulf of Mexico inland to the point at which navigation by regulated vessels is naturally or artificially obstructed. The term includes the entirety of the Gulf Intracoastal Waterway (GIWW) within Texas, and the following waters: Starting from Echo, Texas, 30°09'10"N 93°42'25"W (Orange County) and proceeding south on the Sabine River to the intersection with the GIWW, thence westerly along the GIWW, including Adams and Cow Bayous to the Highway 87 bridges, to Port Arthur. This includes the Neches River to a point 22 miles north, 30°07' 48"N 94°05'00"W. Then along the GIWW towards Port Arthur, including Taylors Bayou south of Highway 73. From Port Arthur along the GIWW to, and including, East Bay, Trinity Bay, Cedar Bayou to 29°44'55"N 94°55' 47"W, Lynchburg Canal to 29°41'00"N 94°59'00"W, to the San Jacinto River 2.5 miles NW of the I-10 bridge, Houston Ship Channel to the turning basin, thence 6.5 miles west on Buffalo Bayou at 29°46'00"N 94 20'46"W. The Houston Ship Channel includes: Buffalo Bayou to Highway 59, Brays Bayou to the Broadway Street Bridge, Sims Bayou to Highway 225, Vince Bayou to North Ritchie Street, Hunting Bayou to I-10, Greens Bayou to I-10, Boggy Bayou to Highway 225, Tucker Bayou to Old Battleground Road, Carpenter's Bayou to Sheldon Road, and Goose Creek to Highway 146. Proceed south and include Barber Cut, Bayport Channel, Clear Lake, Dickinson Bay, Moses Lake, Dollar Bay, Texas City Channel (including turning basin), Swan Lake, Jones Bay, and continuing at the junction of West Bay and the GIWW in Galveston. Continue westerly along the GIWW to the Port of Freeport, including Greens Lake, Chocolate Bay/Bayou to nine miles NW of the GIWW 29°14'42"N 95°13'30"W, the Old Brazos River and the New Brazos River up to the Missouri-Pacific Railroad bridge in Brazoria, and the Dow Barge Canal. Then southerly along the GIWW through and including, Jones Lake and Creek, the San Bernard River to Sweeney Texas 29°03'55"N 95°40'15"W, Cowtrap Lake, Matagorda Bay, the Colorado River to the Port of Bay City 28°51'45"N 96°01'45"W, Culver Cut (West Branch Colorado River to 28°42'N and the entire middle branch), Crab

Lake, Oyster Lake, Tres Palacios Bay to 28°47'N, Turtle Bay, Carancahua Bay, Keller Bay, Cox Bay, Lavaca Bay, Lavaca River to 28°50'N, Chocolate Bay/Bayou to 96°40'W, Powderhorn Lake, Robinsons Lake, Blind Bayou, La Salle Bayou, Broad Bayou, and Boggy Bayou. Continuing southerly on GIWW from Port O'Connor through San Antonio Bay, including, Guadalupe Bay, Mission Lake, Green Lake, Victoria Barge Canal, Guadalupe River to 28°30'N, Goff Bayou, Hog Bayou, Corey Bay, Buffalo Lake, Alligator Slide Lake, Twin Lake, Mustang Lake, and Jones Lake. Then continuing through Mesquite Bay including: Dunham Bay, Long Lake, Sundown Bay and the Aransas Wildlife Refuge. Continuing southerly through Saint Charles Bay including: Burgentine Bay/Burgentine Creek to 28°17'N, Salt Creek to 28°16'N, and Cavaso Creek to 97°01'W. Thence through Copano Bay including, Copano Creek, Mission Bay/River, Chiltipin Creek to 97°18'W, Aransas River to 97°18'W, Swan Lake, Port Bay, and Salt Lake. Then southerly including: Little Bay, Aransas Bay, Conn Brown Harbor, Redfish Cove, Redfish Bay, La Quinta Channel, Corpus Christi Bay, Nueces Bay, Nueces River to U.S. 77, Rincon Industrial Channel, Rincon Bayou, Tule Lake, Corpus Christi Inner Harbor, Oso Creek, Oso Bay, and Cayo Del Oso. Continuing south, through and including, Packery Channel, Laguna Madre, Baffin Bay, Alazan Bay, Cayo del Hinoso, Petrolino [sic; Petronila] Creek, Cayo del Infiernillo, Cayo del Grullo, Laguna Salada, Laguna de los Olmos, and Comitas Lake. Continuing through the Laguna Madre to Redfish Bay, Port Mansfield Harbor, Four Mile Slough, Arroyo Colorado River to Harlingen 26°11'53"N 97 35'57"W, Laguna Atascosa, Arroyo Colorado Cutoff, El Realito Bay, Laguna Vista Cove, Port Isabel Harbor, Brownsville Ship Channel, Bahia Grande, Vadia Ancha, San Martin Lake, and South Bay. Where the coastal area is defined by a body of water such as a bay or lake, it includes any small bays or lakes encompassed therein. *(TNRCC and GLO)*

Commissioner Statutorily defined (in OSPRA) as the commissioner of the General Land Office. May also be used to refer to the appointed members comprising the Texas Natural Resource Conservation Commission and/or the elected members of the Railroad Commission of Texas. *(ALL)*

Comptroller The Comptroller of Public Accounts. *(ALL)*

Crude oil Any naturally occurring liquid hydrocarbon at atmospheric temperature and pressure coming from the earth, including condensate. *(ALL)*

Damages Compensation to: (a) an owner, lessee, or trustee for any direct, documented loss of, injury to, or loss of use of any real or personal property or natural resources damaged by an unauthorized discharge of oil; (b) a state or local government for any direct, documented net loss of taxes or net costs or increased entitlements or public services; or, (c) persons, including but not limited to holders of an oyster lease or permit; persons owning, operating, or employed on commercial fishing, oystering, crabbing, or shrimping vessels; persons owning, operating, or employed by seafood processing concerns; and others similarly economically reliant on the use or acquisition of natural resources for any direct, documented loss of income, profits, or earning capacity from the inability of the claimant to use or acquire natural resources arising solely from damage to the natural resources from an unauthorized discharge or oil. *(GLO)*

Damages with respect to natural resources The cost to assess, restore, rehabilitate, or replace damaged natural resources, or to mitigate further damage, and their diminution in value after such restoration, rehabilitation, replacement, or mitigation. *(TNRCC, GLO, and TPWD)*

Disaster The occurrence or imminent threat of widespread or severe damage, injury or loss of life or property resulting from any natural or man-made cause, including fire, flood, earthquake, wind, storm, wave action, oil spill or other water contamination, volcanic activity, epidemic, air contamination, blight, drought, infestation, explosion, riot, hostile military or paramilitary action, or other public calamity requiring emergency action or an energy emergency as declared by the Governor of Texas. *(ALL)*

Discharge of oil An intentional or unintentional act or omission by which harmful quantities of oil are spilled, leaked, pumped, poured, emitted, or dumped into or on coastal waters or at a place adjacent to coastal waters where, unless controlled or removed, an imminent threat of pollution to coastal waters exists. *(GLO)*

Discharge or spill An act or omission by which oil, hazardous substances or other substances in harmful quantities (see definition) are spilled, leaked, pumped, poured, emitted, entered, or dumped onto or into waters in this state or by which those substances are deposited where, unless controlled or removed, they may drain, seep, run, or otherwise enter water in this state. The term *discharge or spill* shall not include any discharge that is authorized by a permit issued pursuant to federal law or any law of this state or that is regulated, with the exception of transportation spills of hazardous substances and spills of hazardous substances in coastal waters, by the RRC. *(TNRCC)*

Discharge cleanup organization Any group or cooperative, incorporated or unincorporated, of owners or operators of vessels or terminal facilities and any other person who may elect to join, organized for the purpose of abating, containing removing, or cleaning up pollution from discharges of oil or rescuing and rehabilitating wildlife or other natural resources through cooperative efforts and shared equipment, personnel, or facilities. Any third-party cleanup contractor, industry cooperative, volunteer organization, or local government shall be recognized as a discharge cleanup organization, provided the commissioner [of the GLO] properly certifies the organization. *(GLO)*

Emergency Response Unit A unit of the Emergency Response and Assessment Section of the Pollution Cleanup Division in the Office of Waste Management and Pollution Cleanup of the TNRCC that is responsible for the coordination of response to spills and discharges under TNRCC jurisdiction. The Emergency Response Unit represents the TNRCC on the State Emergency Management Council and facilitates TNRCC's role as the lead agency for the oil and hazardous materials support function during disaster response situations. *(ALL)*

Executive director The executive director of the Texas Natural Resource Conservation Commission. *(ALL)*

Facility Any structure or building, including contiguous land, or equipment, pipe or pipeline, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, aircraft, or any site or area where a discharge or spill has occurred or may occur. *(TNRCC)*

Federal fund The federal Oil Spill Liability Trust Fund. *(ALL)*

Fund The Coastal Protection Fund. *(GLO)*

Fund or Fee Fund The Hazardous and Solid Waste Remediation Fee Fund. *(TNRCC)*

Fund or Spill Fund The Texas Spill Response Fund. *(TNRCC)*

Harmful quantity Any quantity of a hazardous substance, or other substance, discharge or spill which is determined to be harmful to the environment, or public health or welfare or may reasonably be anticipated to present an imminent and substantial danger to the public health or welfare by the administrator of the EPA pursuant to federal law; and that quantity or concentration of a hazardous substance or other substance that is toxic, corrosive, ignitable, reactive, or oxygen demanding (biological or chemical) or that exhibits another factor or factors which the executive director of the TNRCC or his designee determines is causing or may cause pollution or harm to the environment, or the public health or welfare. *(TNRCC)*

Harmful quantity That quantity of oil the discharge of which is determined by the commissioner [of the GLO] to be harmful to the environment or the public health or welfare or may reasonably be anticipated to present an imminent or substantial danger to the public health or welfare. *(GLO)*

Hazardous substance Any substance designated as such by the administrator of the EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §9601 et seq.); regulated pursuant to Section 311 of the federal Clean Water Act (33 U.S.C. §1321 et seq.), or designated by the commission. *(TNRCC)*

Hazardous substance Any substance, except oil, designated as hazardous by the Environmental Protection Agency pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §9601 et seq.) and designated by the executive director of the TNRCC. *(GLO)*

Hazardous waste Any solid waste identified or listed as a hazardous waste by the administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), 42 U.S.C., §6901, et seq., as amended or as defined in the Texas Health and Safety Code, Chapter 361. The EPA administrator has identified the characteristics of hazardous wastes and listed certain wastes as hazardous in Title 40 Code of Federal Regulations Part 261 Subparts C and D, respectively. *(TNRCC)*

Industrial solid waste Solid waste, as defined in 30 TAC §335.1 resulting from or incidental to any process of industry or manufacturing, or mining, or agricultural operations, which may include hazardous waste as defined in 30 TAC §335.1.

LEPC Local emergency planning committee. *(ALL)*

Marine terminal Any terminal facility used for transferring crude oil to or from vessels. *(GLO)*

National Contingency Plan The plan prepared and published, as revised from time to time, under the federal Water Pollution Control Act (33 U.S.C. §1321 et seq.) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. §9601 et seq.). This plan is also referred to as the NCP. *(ALL)*

Natural resources All land, fish, shellfish, fowl, wildlife, biota, vegetation, air, water, and other similar resources owned, managed, held in trust, regulated, or otherwise controlled by the state. *(TNRCC/GLO)*

Natural resources All land, fish, shellfish, fowl, wildlife, biota, vegetation, air, water, and other similar resources owned, managed, held in trust, regulated, or otherwise controlled by the state including the state's mineral resources such as oil and natural gas reserves. *(RRC)*

Oil Oil of any kind or in any form, including but not limited to petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil (see Clean Water Act, 33 U.S.C. §1321(a)). Oil does not include used oil, petroleum product or oil designated as a hazardous substance in 40 CFR 302.4. *(TNRCC)*

Oil Oil of any kind or in any form, including but not limited to crude oil, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil, but does not include petroleum, including crude oil or any fraction thereof, which is specifically listed or designated as a hazardous substance under Subparagraphs (A) through (F) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. §9601 et seq.) and which is subject to the provisions of that Act, and which is so designated by the Texas Natural Resource Conservation Commission. *(GLO)*

On-scene coordinator (OSC) The official designated by and representing the state or federal agency of appropriate jurisdiction (i.e, the lead agency) to coordinate and direct state- or federally funded responses, or to oversee private responses, to discharges or spills. May also be used interchangeably with *SOSC, FOSC,* or *agency on-scene coordinator*. *(ALL)*

Other substance Any substance, which may be useful or valuable and therefore not ordinarily considered to be a waste, but that will cause pollution if discharged into water in the state (see Texas Water Code, §26.039(a)(3)). *(TNRCC)*

Owner or operator Any person: (a) owning, operating, or chartering by demise a vessel; or (b) owning a terminal facility or a person operating a terminal facility by lease, contract, or other form of agreement. *(GLO)*

Person Includes an individual, firm, corporation, association, and partnership. *(TNRCC)*

Person responsible or responsible person The owner, operator, or demise charterer of a vessel from which a spill emanates; the owner or operator of a facility from which a spill emanates; or any other person who causes, suffers, allows or permits a spill or discharge. *(TNRCC)*

Person responsible or responsible person The owner, operator, or demise charterer of a vessel or terminal facility from which an unauthorized discharge of oil emanates or threatens to emanate; in the case of an abandoned vessel or terminal facility, the person who would have been the responsible person immediately prior to the abandonment; and, any other person who causes, suffers, allows or permits an unauthorized discharge of oil or threatened unauthorized discharge of oil. *(GLO)*

Petroleum product A petroleum substance obtained from distilling and processing crude oil that is liquid at standard conditions of temperature and pressure, and that is capable of being used as a fuel for the propulsion of a motor vehicle or aircraft, including but not necessarily limited to motor gasoline, gasohol, other alcohol blended fuels, aviation gasoline, kerosene, distillate fuel oil, and #1 and #2 diesel. The term does not include naphtha-type jet fuel, kerosene-type jet fuel, or a petroleum product destined for use in chemical manufacturing or feedstock of that manufacturing. *(TNRCC)*

Petroleum storage tank (PST) exempted facilities Petrochemical plants, petroleum refineries, electric generating facilities, transformers and other electrical equipment used during the transmission of electricity, bulk loading facilities, and pipelines that are exempted from the Aboveground Storage Tank (AST) program under 30 TAC §334.123(a)(9) and 30 TAC §334.123(b) relating to Statutory Exemptions for ASTs, and 30 TAC §334.124(a)(4) relating to Commission Exclusions for ASTs. *(TNRCC)*

Pipeline A pipeline is: (1) an *interstate* pipeline facility, including gathering lines and any aboveground storage tank connected to such facility, if the pipeline facility is regulated under the Natural Gas Pipeline Safety Act of 1968 (49 United States Code §1671, et seq.) or the Hazardous Liquid Pipeline Safety Act of 1979 (49 United States Code §2001, et seq.); or (2) an *intrastate* pipeline facility or any aboveground storage tank connected to such a facility, if the pipeline facility is regulated under the Natural Resources Code Chapters 111 or 117, or, Texas Civil Statutes, Article 6053-1 and 6053-2. *(TNRCC)*

Pollution The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the state that renders such water harmful, detrimental, or injurious to humans, animal life, vegetation, or property or to public health, safety or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose (Texas Water Code §26.001). *(TNRCC)*

Pollution The presence of harmful quantities of oil from an unauthorized discharge in coastal waters or in or on adjacent waters, shorelines, estuaries, tidal flats, beaches, or marshes. *(GLO)*

Quality assurance Refers to identification, precision, accuracy, and error determination of laboratory analytical methods. *(TNRCC)*

Quality control When used in the context of sample analyses, quality control refers to holding times, blank contamination, spike recovery, and detection capabilities. *(TNRCC)*

Regional manager The manager of a TNRCC field office. *(TNRCC)*

Regional office A TNRCC field office. *(TNRCC)*

Regional Response Team A team consisting of designated representatives from participating federal, state, and local agencies or authorities pursuant to Title 40 Code of Federal Regulations (CFR) § 300 et seq. (ALL)

Registered facility Any facility that is registered with or permitted by the commission. *(TNRCC)*

Release Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, escaping, leaching, dumping, injection, or disposing into the environment, but excludes: (1) any release which results in exposure to persons solely within the workplace, with respect to a claim which those persons may assert against the employer of those persons; (2) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine; (3) release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.) if the release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under Section 170 of such Act, or, for the purposes of Section 104 of CERCLA or any other response action, any release of source, by-product, or special nuclear material from any processing site designated under §122(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978 (42 U.S.C. 7912 and 7942); and, (4) the normal application of fertilizer. *(TNRCC)*

Remedial action Those actions consistent with a permanent remedy taken instead of or in addition to removal actions in the event of a *release or threatened release of a hazardous waste* into the environment to prevent or minimize the release of hazardous wastes so that they do not migrate to cause an imminent and substantial danger to present or future public health and safety or the environment. The term includes such remedial actions as authorized under the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Public Law 96-510) or the Solid Waste Disposal Act (Texas Health and Safety Code, Chapter 361, Vernon Supp. 1990). *(TNRCC)*

Removal of hazardous waste The cleanup or removal of released *hazardous wastes* from the environment; the actions necessary to be taken in the event of the threat of release of *hazardous wastes* into the environment; the actions necessary to monitor, assess, and evaluate the release or threat of release of *hazardous wastes;* the disposal of removed material; or the taking of other actions as may be necessary to prevent, minimize, or mitigate damage to the public health and welfare or the environment that may otherwise result from a release or threat of release as authorized in the Solid Waste Disposal Act. The term also includes security fencing or other measures to limit access, provision of alternate water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under Section 104(b) of the environmental response law, and any emergency assistance that may be provided under the Disaster Relief Act of 1974 as amended, 42 U.S.C. 5121-5202. *(TNRCC)*

Removal of oil or hazardous substances The cleanup or removal of a *discharge or spill* as authorized by Chapter 26, Subchapter G, of the Texas Water Code, as amended. The term applies to the executive director's expenditure of money from the Texas Spill Response Fund to obtain personnel,

equipment, and supplies required in the cleanup of discharges and spills, including restoration of land and aquatic resources held in trust or owned by the state. *(TNRCC)*

Reportable upset An upset that, in any 24-hour period, results in an unauthorized emission of air contaminants equal to or in excess of the reportable quantity as defined in 30 TAC Section 101.1. *(TNRCC)*

Response costs With respect to an actual or threatened discharge: (a) of oil, all costs incurred in an attempt to prevent, abate, contain, and remove pollution from the discharge, including costs of removing vessels or structures, and costs of any reasonable measures to prevent or limit damage to the public health, safety, or welfare, public or private property, or natural resources; or, (b) of a hazardous substance, only costs incurred to supplement the response of the Texas Natural Resource Conservation Commission. *(GLO)*

Solid waste Any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility, and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, municipal, commercial, mining, and agricultural operations, and from community and institutional activities, but does not include: (1) solid or dissolved material in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges subject to regulation by permit issued pursuant to Chapter 26, Texas Water Code (an exclusion applicable only to the point source discharge that does not exclude industrial wastewaters while they are being collected, stored, or processed before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment); (2) uncontaminated soil, dirt, rock, sand, and other natural or man-made inert solid materials used to fill land if the object of the fill is to make the land suitable for the construction of surface improvements; (3) waste materials which result from activities associated with the exploration, development, or production of oil or gas or geothermal resources (as those activities are defined in 30 TAC §335.1), and any other substance or material regulated by the Railroad Commission of Texas pursuant to §91.101, Natural Resources Code, unless such waste, substance, or material results from activities associated with gasoline plants, natural gas or natural gas liquids processing plants, pressure maintenance plants, or repressurizing plants and is a hazardous waste as defined by the administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq., as amended; or, (4) a discarded material excluded by 40 CFR §261.4(a) or by variances granted under 30 TAC §335.18. *(ALL)*

Solid waste facility All contiguous land, and structures, other appurtenances, and improvements on the land, used for processing, storing, or disposing of solid waste. A facility may be publicly or privately owned and consist of several processing, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations thereof). *(ALL)*

Terminal facility or facility Any waterfront or offshore pipeline, structure, equipment, or device used for the purposes of drilling for, pumping, storing, handling, or transferring oil and operating where a discharge of oil from the facility could threaten coastal waters, including but not limited to any such facility owned or operated by a public utility or a governmental or quasi-governmental body.

(GLO)

Trained personnel One or more persons who have satisfactorily completed an appropriate course of instruction developed under §40.302 of the Texas Natural Resources Code and all other training requirements as determined by the commissioner. *(GLO)*

Transportation The act of conveyance or movement of materials from one place to another by truck, ship, pipeline, or other means. *(ALL)*

Unauthorized discharge of oil Any discharge of oil, or any discharge of oil emanating from a vessel into waters adjoining and accessible from coastal waters, that is not authorized by a federal or state permit. See also *unauthorized discharge* as defined in 31 TAC 19.2(a)(15). *(GLO)*

Unauthorized discharge of hazardous substances A spill or discharge subject to Subchapter G, Chapter 26 of the Texas Water Code. *(GLO)*

Unauthorized emission An emission of any air contaminant except carbon dioxide, water, nitrogen, methane, ethane, noble gases, hydrogen, and oxygen which exceeds any air emission limitation in a permit, rule, or order of the commission or as authorized by Texas Clean Air Act, §382.0518(g). *(TNRCC)*

Upset An unscheduled occurrence or excursion of a process or operation that results in an unauthorized emission of air contaminants. *(TNRCC)*

Used oil Oil that has been refined from crude oil, or synthetic oil, that as a result of use has been contaminated by physical or chemical impurities.

Vessel Includes every description of watercraft or other contrivance used or capable of being used as a means of transportation on water, whether self-propelled or otherwise, including barges. *(GLO)*

Vessel Every description of watercraft, used or capable of being used as a means of transportation on the water. *(TNRCC)*

Water or water in the state Groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodies of surface waters, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state. *(TNRCC)*

Notification Requirements

Federal

Reportable spills, as defined by federal regulations, shall be reported by the responsible person immediately to the National Response Center (NRC) duty officer in Washington, D.C. The toll-free number for the NRC is 800/424-8802. All notices of spills received at the NRC are relayed immediately by telephone to the predesignated federal on-scene coordinator (OSC) for the affected area. If it is not possible to immediately report to the NRC, the report may be given to the office of the appropriate federal OSC (Coast Guard or EPA). However, the responsible person is still required to notify the NRC as soon as possible. **Notification of the NRC does not constitute notice to the state.**

State of Texas

The state of Texas has established a **toll-free Environmental Emergency Hot Line at 1-800-832-8224** to provide the regulated community with a notification system designed to satisfy their state reporting requirements with a single phone call. Callers dialing the hot line will be connected to the Texas Department of Public Safety Communications Center where DPS dispatchers will record the incoming call, determine which state agency has jurisdiction, and relay the report to the agency with jurisdiction both verbally and by telefax. Agencies included in the system are the TNRCC, GLO, and RRC. This system generates an incident report and establishes a common incident numbering system.

Texas Natural Resource Conservation Commission

The Texas Water Code Section 26.039 and Subchapter G, as well as Title 30 Texas Administrative Code Chapter 327, requires reporting to the TNRCC of discharges, spills and releases, "which cause or may cause pollution of water in the state." A telephone report is required by the person responsible, **as soon as possible and not later than 24 hours after the occurrence.** The toll-free number **1-800-832-8224** may be called by the regulated community to report discharges, spills, and releases to the TNRCC.

Although TNRCC anticipates that the Environmental Emergency Hot Line will accept any call that they receive, the number has been established primarily for the regulated community. Additionally, there are other state and federal requirements for release reporting that may be satisfied by calling the TNRCC at 1-800-832-8224.

Callers may also satisfy reporting requirements by contacting their TNRCC regional office during regular business hours (8:00 am to 5:00 pm) or by calling the agency's 24-hour location at 512-463-7727 or 512-239-2507.

The TNRCC may also be called directly by persons other than the person responsible for a discharge, spill,

or release when the caller wants to provide or obtain information regarding an environmental emergency.

For the purposes of this plan, a reportable discharge or spill is a discharge or spill of oil, hazardous substances, industrial solid waste, or other substances into the environment in a quantity equal to or greater than the reportable quantity (RQ) in any 24-hour period. The reportable quantities are listed as follows:

Oil, petroleum product, and used oil

The RQs for crude oil and oil other than that defined as petroleum product or used oil are:

- for spills or discharges onto land—210 gallons (5 barrels); or
- for spills or discharges directly into water in the state—quantity sufficient to create a sheen.

The RQs for petroleum product and used oil are:

- for spills or discharges to land from PST exempted facilities—210 gallons (5 barrels); or
- for spills or discharges onto land from non-PST exempt facilities—25 gallons;
- for spills or discharges directly into water in the state—quantity sufficient to create a sheen.

Hazardous substances

The reportable quantities for hazardous substances are:

- for spills or discharges onto land—the quantity designated as the *final reportable quantity* (RQ) in Table 302.4 in 40 CFR) §302.4; or
- for spills or discharges into waters in the state—the quantity designated as the final RQ in Table 302.4 in 40 CFR §302.4, except where the final RQ is greater than 100 pounds, in which case the RQ shall be 100 pounds.

Industrial solid waste or other substances

The RQ for spills or discharges into water in the state shall be 100 pounds.

Spills from certain underground and aboveground storage tanks

Regulations for spills from certain underground storage tanks (UST) and aboveground storage tanks (AST) are outlined in Title 30 Texas Administrative Code §334.75 entitled "Reporting and Cleanup of Surface Spills and Overfills." Owners and operators of UST systems must contain and immediately clean up a spill or overfill, report to the TNRCC within 24 hours, and begin corrective action in accordance with 30 TAC §§334.76–334.81 (relating to Initial Response to Releases; Initial Abatement

Measures and Site Check; Initial Site Characterization; Free Product Removal; Investigation for Soil and Groundwater Cleanup; and Corrective Action Plan) in the following cases:

- a spill or overfill of petroleum that results in a release to the environment that exceeds 25 gallons, or that causes a sheen on nearby surface water; and

- a spill or overfill of a hazardous substance that results in a release to the environment that equals or exceeds its reportable quantity under CERCLA (Title 40 Code of Federal Regulations Part 302).

Owners and operators of UST systems must contain and immediately clean up a spill or overfill of petroleum that is less than 25 gallons, and a spill or overfill of a hazardous substance that is less than the reportable quantity under CERCLA (40 CFR Part 302). If cleanup cannot be accomplished within 24 hours, owners and operators must immediately notify the executive director.

Spills by used oil handlers and recyclers

Spills at facilities that handle used oil are regulated pursuant to 30 TAC §324.15. Whenever there is a catastrophic release or discharge of used oil and used oil reaches the environment, corrective measures must be immediately taken by the responsible person to adequately protect human health and the environment from potential damages. A spill of used oil in an amount sufficient to cause a sheen on water or a spill of automotive engine used oil or a mixture of automotive used oil and other used oil of 25 gallons or more that goes into the environment at a do-it-yourselfer used oil collection center should be reported to the TNRCC as soon as possible and not later than 24 hours after discovery (see 40 CFR §279.43(c) for discharges during transport.) A spill or overfill of used oil at an underground storage tank that results in a release to the environment that exceeds 25 gallons or that causes a sheen on nearby surface water shall be reported and handled as in 30 TAC §334.75 (relating to reporting and cleanup of surface spills and overfills). All other used oil spills must be reported in accordance with other applicable commission requirements and agreements. The responsible person may notify the TNRCC in any reasonable manner including by telephone, in person, or by any other method approved by the TNRCC.

Transportation Spills of Crude Oil, Natural Gas, and Natural Gas Liquids

The TNRCC also has jurisdiction over wastes associated with the transportation of crude oil and natural gas, including natural gas liquids, by railcar, tank truck, barge, or tanker.

The primary purpose for requiring notification *as soon as possible* is to provide the state an opportunity to assist the responsible person in the prevention of further pollution as well as to minimize impact to public health or the environment. Pollution that could have been minimized or prevented by a more immediate notification and response may be treated as a separate violation. Additionally, the responsible person and others should recognize the need for, or appropriateness of, the immediate notification of local first responders and other authorities.

Once the TNRCC regional office or TNRCC ERT has been contacted, the TNRCC will act as lead agency and on-scene coordinator for those incidents subject to TNRCC jurisdiction. The TNRCC will initiate coordination with the appropriate state and federal agencies, depending upon the location and nature of the incident. Involved

state agencies may include the General Land Office (GLO); Texas Department of Public Safety (DPS); Governor's Division of Emergency Management (DEM); Railroad Commission of Texas (RRC); Texas Parks and Wildlife Department (TPWD); Texas Department of Transportation (TxDOT); and Texas Department of Health (TDH). **All state agencies and/or their field offices receiving notification of discharges or spills covered by this plan and under TNRCC jurisdiction will be responsible for immediately contacting the appropriate TNRCC office or the TNRCC ERT by telephone.**

Railroad Commission of Texas

The responsible party must **immediately** notify the Railroad Commission of any fire, leak spill, or break from activities associated with the exploration, development, and production of oil, gas, or geothermal resources. These include:

- All spills of crude oil greater than five (5) barrels;
- All spills of any quantity of crude oil that enters water;
- All blowouts and/or fires associated with oil, gas, and geothermal activities;
- Any accidental release of hydrogen sulfide gas of sufficient volume to present a hazard and of any hydrogen sulfide–related accident; or
- Any injury, death, property damage from gas pipelines ($5,000) or hazardous liquid pipelines ($50,000) or other significant incident.

Spills should immediately be reported to the appropriate Railroad Commission division through the appropriate district office, or if necessary to the RRC 24-hour statewide emergency number, 512/463-6788. Examples of some spills requiring notification are spills from leases, crude oil or natural gas pipelines, rigs or platforms operating in coastal waters, or trucks on an oil or gas lease. Upon notification, the RRC will:

- Act as lead agency and state on-scene coordinator (OSC) for spills from facilities associated with the exploration, development, and production, including pipeline transportation or storage, of oil, gas, or geothermal resources, along with brine and other surface mining activities.
- Act as OSC for a crude oil spill of less than 240 barrels from an exploration, development, or production facility that enters coastal waters or poses an imminent threat of entering coastal waters.
- Provide technical expertise to the SOSC regarding releases of hydrogen sulfide gas.
- Provide communications gear, H_2S-monitoring equipment, and boats if requested by the OSC.

Reporting Requirements for Operators Regulated by the RRC

(1) *Crude oil spills over 5 barrels.* For each spill exceeding 5 barrels of crude oil, the responsible operator must comply with the notification and reporting requirements of 16 TAC §3.20 (relating to notification of fire breaks, leaks, or blow-outs) and submit a report on a Form H-8 to the appropriate district office. The following information must be included:

(A) area (square feet), maximum depth (feet), and volume (cubic yards) of soil contaminated with greater than 1.0% by weight total petroleum hydrocarbons;

(B) a signed statement that all soil containing over 1.0% by weight total petroleum hydrocarbons was brought to the surface for remediation or disposal;

(C) a signed statement that all soil containing over 5.0% by weight total petroleum hydrocarbons has been mixed in place to 5.0% by weight or less total petroleum hydrocarbons or has been removed to an approved disposal site or to a secure interim storage location;

(D) a detailed description of the disposal or remediation method used or planned to be used for cleanup of the site;

(E) the estimated date of completion of site cleanup.

(2) *Crude oil spills over 25 barrels.* For each spill exceeding 25 barrels of crude oil, in addition to the report required in paragraph (1) of this subsection, the operator must submit to the appropriate district office a final report upon completion of the cleanup of the site. Analyses of samples representative of the spill site must be submitted to verify that the final cleanup concentration has been achieved.

(3) *Crude oil spills of 5 barrels or less.* Spills into the soil of 5 barrels or less of crude oil must be remediated to these standards, but are not required to be reported to the RRC. All spills of crude oil into water must be reported to the RRC.

General Land Office

Any person responsible for an unauthorized discharge of oil or the person in charge of any vessel or terminal facility from or at which an unauthorized discharge of oil has occurred, as soon as that person has knowledge of the discharge, shall:

(1) **immediately notify the GLO at 1-800-832-8224 of the discharge,** and

(2) undertake all reasonable actions to abate, contain, and remove pollution from the discharge.

On notification of a spill, the GLO will act as on-scene coordinator (OSC). The OSC shall ensure that response activities are consistent with the *National Contingency Plan* (NCP), the *State Coastal Discharge Contingency Plan, State of Texas Oil and Hazardous Substances Spill Contingency Plan,* and any other applicable plans.

Any responsible person or person or organization under the control of the responsible person shall comply with directions and orders of the OSC. The only grounds upon which the OSC's orders and directions can be challenged are:

(1) they constitute an unreasonable threat to public safety or natural resources, or

(2) they conflict with the directions or orders of the federal OSC

The responsible person or his agent must state the grounds for his refusal to comply and must give written notice of the grounds for failure to comply within 48 hours of the refusal. Written notice of reasons for failure to comply with the orders or directions of the OSC shall be mailed to:

Division of Oil Spill Prevention and Response
Texas General Land Office
1700 North Congress Avenue
Austin, Texas 78701-1495

Initial Report Information

Initial Report to First Responders

If the spill is obviously endangering the public health or welfare through traffic hazard, explosion, fire, noxious or toxic gas, water contamination, or other means, **immediately notify the local fire department, law enforcement authority, or emergency medical service as appropriate.** When making these initial notifications to first responders, the caller should attempt to provide, at a minimum, the following information:

(a) name of caller and callback number;

(b) the exact location and nature of the incident;

(c) the extent of personal injuries and damage;

(d) the extent of fire;

(e) the wind direction and approximate velocity;

(f) the material involved, if easily identifiable, and warning placard or warning label information.

It is cautioned that only trained responders should approach a fire or spill.

The owner/operator of the facility or activity from which the spill originated should then be located and notified immediately. It is appropriate and beneficial, if not necessary, for local authorities to make this contact. The owner/operator should be able to deploy initial spill countermeasures on short notice.

Initial Report to the State

When making a telephone report of a spill or pollution complaint to the state, the notifier should be prepared to provide as much of the following information as possible:

(1) the name, address and telephone number of the person making the telephone report;

(2) the date, time, and location of the spill or discharge;

(3) a specific description or identification of the oil, hazardous substances, or other substances discharged or spilled;

(4) an estimate of the quantity discharged or spilled;

(5) the duration of the incident;

(6) the name of the surface water or a description of the waters in the state affected or threatened by the discharge or spill;

(7) the source of the discharge or spill;

(8) a description of the extent of actual or potential water pollution or harmful impacts to the environment and an identification of any environmentally sensitive areas or natural resources at risk;

(9) if different from paragraph (1) of this subsection, the names, addresses, and telephone numbers of the responsible person and the contact person at the location of the discharge or spill;

(10) a description of any actions that have been taken, are being taken, and will be taken to contain and respond to the discharge or spill;

(11) any known or anticipated health risks;

(12) the identity of any governmental representatives, including local authorities or third parties, responding to the discharge or spill; and

(13) any other information that may be significant to the response action.

Any private citizen complaining of pollution may opt to remain anonymous.

Additional Notification Requirements for Persons Regulated by the TNRCC

Update Notification to the TNRCC

Responsible persons regulated by the TNRCC pursuant to 30 TAC Chapter 327 shall notify the TNRCC, as soon as possible and whenever necessary, to provide information that would trigger a change in the response to the spill or discharge.

Notice to Local Government

If the discharge or spill creates a potential for off-site human exposure, the responsible person shall immediately notify and cooperate with local emergency authorities (fire department, fire marshal, law enforcement authority, health authority, or Local Emergency Planning Committee (LEPC), as appropriate). The responsible

party will cooperate with the local emergency authority in providing support to implement appropriate notification and response actions. The local emergency authority, as necessary, will implement its emergency management plan, which may include notifying and evacuating affected persons. In the absence of a local emergency authority, the responsible person shall take reasonable measures to notify potentially affected persons of the spill or discharge and the potential exposure.

Notice to property owner(s) or occupant(s)

As soon as possible, but no later than 2 weeks after the discovery of a spill or discharge, the responsible person shall reasonably attempt to notify the owner (if identifiable) or occupant of the property upon which the discharge or spill occurred as well as the occupants of any property that the responsible person reasonably believes is adversely affected.

Recommended Initial Response Actions

Human Safety

The protection of human life is paramount in any spill, discharge, or release incident. With regard to human safety, the following measures should be followed:

(a) avoid direct contact with the spilled material;

(b) avoid inhalation of any gases, fumes, vapors, or smoke. All personnel should stay upwind (some gases inhibit the sense of smell or may be dangerous at undetectable concentrations);

(c) move and keep people away from the incident scene; contact the nearest law enforcement authority for assistance, if necessary;

(d) attempt to determine and remove all ignition sources without unnecessarily endangering your own life;

(e) assess the situation with regard to injuries;

(f) contact the appropriate authorities and responsible parties and allow them to handle the response activities.

Substance Identification

One of the most important aspects of the initial response activities at a spill incident is identification of the substance involved. The first responsible authority on scene should attempt to make this determination. Under no circumstances should this authority attempt substance identification without adequate personal protection and without exercising extreme caution.

Direct identification of the substance involved in a transportation incident may be obtained from the following sources:

(a) **Operators of the vehicle.** Vehicle operators should be able to identify the materials they are carrying. They should be located as soon as possible and questioned regarding the contents of their vehicle. Shipping papers identifying the substance(s) involved should be in their possession. They may also be able to provide information regarding the shipper, consignee, and manufacturer.

(b) **Shipping papers.** For highway incidents, shipping papers identifying the vehicle cargo should

be in the possession of the driver or located in the cab of the vehicle on the seat or in a holder on the inside of the door. In the event of a railway incident, shipping papers should be in the possession of the conductor or located in the engine and the caboose. Shipping papers for waterborne vessels should be in the possession of the captain of the vessel, the person in charge of the watch, or located on the bridge or in the pilot house of the vessel. On barges, the shipping papers are carried in a tube or box on the barge.

(c) **UN (United Nations) or NA (North America) material identification numbers.** There may be a black 4-digit identification number directly on warning placards or on individual orange panels on the tank, vehicle, or rail car ends. If not displayed on the vehicle ends, check the sides of the transport. These numbers are hazard category codes that can be identified in the latest U.S. Department of Transportation (DOT) *Emergency Response Guidebook* or by contacting CHEMTREC. This number identifies generic groups of hazardous materials, e.g., No. 1203 for gasolines, fuel oils, etc.

(d) **Information on containers.** In certain situations, information on containers will identify their contents. In other situations, the name and address of the shipper or consignee may be found on the containers. These parties may then be contacted directly or through CHEMTREC in an attempt to identify the materials involved.

(e) **The shipping company.** The shipping firm or railway company involved in the incident should be able to identify the contents of their vehicle. Highway and rail vehicles often have unique identification numbers (in addition to the numbers described in (c) above) displayed on the ends and/or sides of each particular vehicle. By contacting the company involved, either directly or through CHEMTREC, and providing the identification numbers when available, the contents of these particular vehicles may be identified.

If direct identification is impossible, or if any of the above methods of identification are prohibitive from a time or safety standpoint, attempt to identify as many of the chemical and physical properties of the substance as possible. Contact CHEMTREC or the TNRCC Emergency Response Unit and provide this information for assistance in identifying the material. The following properties should be identified:

1. color of the material;

2. physical state of the material (gas, liquid or solid);

3. odor (identification of the odor should not be done intentionally, but may be available through unintentional exposure);

4. noticeable sound;

5. abnormal or extreme heat;

6. abnormal or extreme cold (presence of frost);

7. pressure leaks; and

8. color of flame (if present).

Again, it cannot be overemphasized that only trained personnel should ever approach a fire or spill.

Obtaining Chemical Information

The TNRCC Emergency Response Unit is staffed by trained and experienced personnel with 24-hour access to reference materials on the hazardous properties of chemicals including computer access to a wide range of chemical identification, toxicological, and reference databases. TNRCC Emergency Response staff may be reached directly at 512/239-2507 or 512/463-7727 (24-hour phone number).

Emergency information concerning the hazardous properties of approximately 18,000 chemicals and chemical classes is available from the Chemical Transportation Emergency Center (CHEMTREC). CHEMTREC will provide immediate information via the telephone and will usually be able to notify the shipper of the material (if the incident is transportation related) or direct the caller to other sources of technical assistance. CHEMTREC operates 24 hours a day, seven days a week, and may be reached, toll-free, at 800/424-9300.

Posting of *Contaminated Area* Warning Signs

Should the threat posed by contamination from a discharge or spill warrant the placement of *Contaminated Area* warning signs by TNRCC staff on affected property, the following rules regarding the use of such signs apply.

30 TAC §335.445. Placement of Warning Signs without Property Owner's Consent.

The commission shall issue an order to authorize the placement of warning signs on contaminated property if no written consent has been received for such placement from the property owner. In non-emergency situations, a hearing on the placement of warning signs shall be held before the commission in accordance with the contested case provisions of the Administrative Procedure Chapter, Sections 2001.051 et seq., Texas Government Code (Vernon).

30 TAC §335.446. Emergency Placement of Signs.

If an emergency exists which requires the immediate placement of warning signs on contaminated property to protect the public health and safety and the property owner has not provided written consent to the placement of warning signs on the contaminated property, an emergency order authorizing the placement of the warning signs may be issued without notice and hearing by the commission or with such notice and hearing as is practicable. If an emergency order is issued by the commission pursuant to this section, the commission shall fix a time and place for a hearing to be held to affirm, modify, or set aside the emergency order. Notice of the hearing to affirm, modify, or set aside shall be in accordance with provisions set forth in Title 30 Texas Administrative Code Chapter 305, Subchapter B.

30 TAC §335.447. Reporting of Placement of Warning Signs.

Any commission employee who places or requests the placement of a warning sign on contaminated property must file a report with the commission's central office in Austin within 10 days of such request or placement. The report must include the following information, if known:

(1) the name and office telephone number of the reporting individual;

(2) the name and telephone number of the commission personnel investigating the contamination;

(3) the location of the contaminated area;

(4) the name of the contaminant(s);

(5) the physical and chemical properties of the contaminant(s);

(6) the source of the contamination;

(7) the extent of the area impacted by the contamination;

(8) conditions affecting migration of the contamination including: surface water runoff, release(s) to the air, releases to the groundwater, prevailing weather, and/or any fire(s) involved;

(9) the extent of actual and potential exposure to the contamination including exposure by emergency personnel, occupational exposure, and real or potential exposure by the public, where this information is available;

(10) a description of the procedures used or proposed to be used to determine that warning signs are necessary and to determine the appropriate placement of the signs;

(11) *[Reserved]*

(12) when and where warning signs were placed or are proposed to be placed;

(13) whether written consent was obtained from the property owner; and

(14) a copy of any written consent obtained from the property owner.

Extent of Cleanup and Restoration Activities

For spills of oil and hazardous substances or other substances and releases or threatened releases of hazardous waste, cleanup and restoration activities will be considered complete when so acknowledged by either a Texas Natural Resource Conservation Commission (TNRCC), General Land Office (GLO), or Railroad Commission of Texas (RRC) representative.

Texas Natural Resource Conservation Commission

The objective of each spill cleanup should be to return the site to prespill or background conditions. Actions required in response to a spill are described in 30 TAC 327.5 which contains a provision for the completion of a cleanup under the Risk Reduction Rules in 30 TAC 335.8 or other TNRCC risk-based corrective action rules.

Cleanup standards are not established for total petroleum hydrocarbons (TPH) due to lack of toxicity values. Concentrations of constituents of concern for which toxicity values have been established (e.g. benzene) should be determined and compared to health-based standards. In instances where no compounds are present for which toxicity values have been determined, then the determination of an acceptable level of residual TPH should be based upon other factors including this guidance borrowed from the PST program:

- No liquid product should be left in the soil.
- The hydrocarbons should not generate vapors which exceed 25% of the lower explosive limit (LEL), measured with a properly functioning and calibrated combustible gas indicator.
- The TPH should not harm vegetation, especially where the vegetation is a food source to animals.
- The TPH concentrations should not create an odor nuisance.
- Site monitoring data should indicate that TPH levels are stable or declining.

Cleanup standards for polychlorinated biphenyls (PCBs) require that PCBs spilled to soil must be reported and the cleanup level must be less than 1 ppm PCB. This is based on the designation of PCBs as a *hazardous substance* subject to the reporting requirements outlined in the Notification Requirements Section of this Plan.

Spills of non-PCB mineral oil to soil are reportable when the quantity spilled is 25 gallons or more and, as in all cases, cleanup of the spilled material is mandated. Cleanup levels relative to TPH are still under development and until such time as they are established specific recommendations or

requirements will be made on a case-by-case basis. All such oil releases less than 25 gallons are to be remediated to the extent that pollution of surface water or groundwater will not occur. TPH concentrations will be of a concern when impacts to state waters can or has occurred or the issue is raised by a responsible party or by an impacted third party.

During the course of cleanup and restoration activities, TNRCC staff shall consult with representatives of the other state agencies concerning the extent of cleanup activities. Likewise, all involved state agencies should consult with the TNRCC concerning costs that the state may recover. The state has a cause of action against any responsible person for recovery of expenditures out the fund and costs that would have been incurred or paid by the responsible person if the responsible person had fully carried out the duties under §26.266 of the Texas Water Code, including reasonable costs of reasonable and necessary scientific studies to determine impacts of the spill on the environment and natural resources and to determine the manner in which to respond to spill impacts, costs of attorney services, out-of-pocket costs associated with state agency actions, and costs of remediating injuries proximately caused by reasonable cleanup activities. This will enable the executive director of the TNRCC to give proper notice to the responsible person as is necessary to preserve the state's right to a cause of action for recovery of ***twice*** the costs incurred in cleaning up the spill or discharge.

Railroad Commission of Texas

16 TAC §3.91. Cleanup of Soil Contaminated by a Crude Oil Spill

(a) Terms. The following words and terms, when used in this section, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Free oil—The crude oil that has not been absorbed by the soil and is accessible for removal.

(2) Sensitive areas—These areas are defined by the presence of factors, whether one or more, that make an area vulnerable to pollution from crude oil spills. Factors that are characteristic of sensitive areas include the presence of shallow groundwater or pathways for communication with deeper groundwater; proximity to surface water, including lakes, rivers, streams, dry or flowing creeks, irrigation canals, stock tanks, and wetlands; proximity to natural wildlife refuges or parks; or proximity to commercial or residential areas.

(3) Hydrocarbon condensate—The light hydrocarbon liquids produced in association with natural gas.

(b) Scope. These cleanup standards and procedures apply to the cleanup of soil in non-sensitive areas contaminated by crude oil spills from activities associated with the exploration, development, and production, including transportation, of oil or gas or geothermal resources as defined in 3.8(a)(30) of this title (relating to water protection). For the purposes of this

section, crude oil does not include hydrocarbon condensate. These standards and procedures do not apply to hydrocarbon condensate spills, crude oil spills in sensitive areas, or crude oil spills that occurred prior to the effective date of this section. Cleanup requirements for hydrocarbon condensate spills and crude oil spills in sensitive areas will be determined on a case-by-case basis. Cleanup requirements for crude oil contamination that occurred wholly or partially prior to the effective date of this section will also be determined on a case-by-case basis. Where cleanup requirements are to be determined on a case-by-case basis, the operator must consult with the appropriate district office on proper cleanup standards and methods, reporting requirements, or other special procedures.

(c) Requirements for cleanup.

(1) Removal of free oil. To minimize the depth of oil penetration, all free oil must be removed immediately for reclamation or disposal.

(2) Delineation. Once all free oil has been removed, the area of contamination must be immediately delineated, both vertically and horizontally. For purposes of this paragraph, the area of contamination means the affected area with more than 1.0% by weight total petroleum hydrocarbons.

(3) Excavation. At a minimum, all soil containing over 1.0% by weight total petroleum hydrocarbons must be brought to the surface for disposal or remediation.

(4) Prevention of stormwater contamination. To prevent stormwater contamination, soil excavated from the spill site containing over 5.0% by weight total petroleum hydrocarbons must immediately be:

(A) mixed in place to 5.0% by weight or less total petroleum hydrocarbons; or

(B) removed to an approved disposal site; or

(C) removed to a secure interim storage location for future remediation or disposal. The secure interim storage location may be on site or off site. The storage location must be designed to prevent pollution from contaminated stormwater runoff. Placing oily soil on plastic and covering it with plastic is one acceptable means to prevent stormwater contamination; however, other methods may be used if adequate to prevent pollution from stormwater runoff.

(d) Remediation of soil.

(1) Final cleanup level. A final cleanup level of 1.0% by weight total petroleum hydrocarbons must be achieved as soon as technically feasible, but not later than one year after the spill incident. The operator may select any technically sound method

that achieves the final result.

(2) Requirements for bioremediation. If on-site bioremediation or enhanced bioremediation is chosen as the remediation method, the soil to be bioremediated must be mixed with ambient or other soil to achieve a uniform mixture that is no more than 18 inches in depth and that contains no more than 5.0% by weight total petroleum hydrocarbons.

(f) Alternatives. Alternatives to the standards and procedures of this section may be approved by the commission for good cause, such as new technology, if the operator has demonstrated to the commission's satisfaction that the alternatives provide equal or greater protection of the environment. A proposed alternative must be submitted in writing and approved by the commission.

Texas Parks and Wildlife Department

Periodically, a cleanup may involve the removal of contaminated material from beaches and streambeds. Chapter 86 of the Parks and Wildlife Code grants the Texas Parks and Wildlife Department (TPWD) the authority to regulate, control, and protect marl and sand of commercial value and all gravel, sand, and mudshell located within the tidewater limits of the state and on islands within those limits, and within the freshwater areas of the state not embraced by a survey of private land and on islands within those areas.

TNRCC Spill Waste Classification and Disposal

Management of Spill Waste

Chapter 26.262 of the Texas Water Code states that *it is the policy of the state to prevent the spill or discharge of hazardous substances into the waters in the state and to cause the removal of such spills and discharges without undue delay.* To successfully complete this mission, TNRCC assumes the authority to direct the appropriate management of wastes and other residual materials which result from spills within the agency's jurisdiction.

Industrial versus Nonindustrial Spill Waste

Industrial solid waste is defined in 30 TAC §335.1 as "solid waste resulting from or incidental to any process of industry or manufacturing, or mining or agricultural operation, which may include hazardous waste as defined in this section."

Residues of spills which occur during transportation and spills which are otherwise not resulting from, or incidental to, an industrial process and which do not generate a hazardous waste (as defined in 40 CFR 261), do not meet the definition of an industrial solid wastes. However, the disposal facilities authorized to receive contaminated media by TNRCC require that spill wastes be classified, documented, and transported like industrial wastes prior to acceptance in most cases.

Use of TNRCC Waste Code

An eight-digit TNRCC waste code is required prior to management in a facility authorized by TNRCC to accept contaminated media. The TNRCC waste classification system is based on self- classification of waste by the generator. The method for assigning the eight-digit waste code is explained in 30 TAC Chapter 335 Subchapter R.

Unique Sequence Code

Industrial and hazardous spill wastes require a unique 4-digit sequence code (as part of the 8-digit waste code) used for computerized tracking at the TNRCC. This sequence code is assigned by TNRCC ERU staff for spill related wastes. To obtain the sequence code complete TNRCC Form 757, "Request for Texas Waste Code for Shipment of Class 1,2,3 and EPA Hazardous Waste." A copy of TNRCC Form 757 is included in this section. The requests may be mailed or telefaxed to (512)239-2527. The turnaround time is generally 3 business days. Generators should contact the TNRCC ERU if emergency conditions call for a quicker response. This form is also used to request temporary state and EPA generator ID numbers (discussed below).

Generic Sequence Code

Generators of spill wastes which are not industrial and not hazardous may self assign the generic sequence code

"SPIL" as part of the eight-digit waste code.

Manifest Required

Shipment of Class 1 industrial and hazardous spill wastes to an off-site waste management facility must be documented through use of a *Uniform Hazardous Waste Manifest* (except for conditionally exempt small quantity generators and industrial generators that generate less than 100 kilograms of nonhazardous Class I waste per month). These forms and additional information regarding this requirement may be obtained by calling the TNRCC Waste Evaluation Section (512)239-6840.

Please note that pursuant to 30 TAC §335.93(b), ***If a discharge of hazardous waste occurs during transportation and a Commission official acting within the scope of his official responsibilities determines that immediate removal of the waste is necessary to protect human health or the environment, that official may authorize the removal of the waste by transporters who do not have EPA identification numbers and without the preparation of a manifest.***

Temporary EPA Generator ID Numbers

A 12-digit EPA generator ID number is required on manifests for shipment of hazardous waste. Generators of hazardous spill wastes may request a site-specific temporary EPA generator ID number from the TNRCC ERU using TNRCC Form 757 (described above).

State Generator ID Number

Either a unique five-digit state generator ID number or a generic, temporary state generator ID number must be shown on the manifest. Generators of spill wastes may request a site-specific temporary state generator ID number from the TNRCC ERU using TNRCC Form 757 (described above).

Management of Spill Waste as Nonindustrial Waste

Options available for nonindustrial spill waste (other than disposal) include treatment at a facility registered by the TNRCC Petroleum Storage Tank program to receive contaminated media, on site treatment, reuse, reclamation and recycling. Proposals for the appropriate management of spill residues which are not industrial wastes must receive the approval of the TNRCC regional office on scene coordinator or TNRCC ERU central office staff.

Use of a Petroleum Storage Tank Division (PST) registered facility

The PST division of TNRCC has entered into an agreement with TNRCC ERU to allow certain contaminated soils from spills and releases to be accepted and treated at soil treatment and recycling facilities regulated under 30 TAC Chapter 334 Subchapter K. Petroleum contaminated soils which are nonindustrial and not hazardous from spills and releases (and that are basically the same as contaminated soils from PST-regulated remediations) may be considered for these facilities. TNRCC approval is given on a case-by-case basis and

requires specific approval of both the waste stream and PST registered facility. Contact TNRCC ERU staff at (512)239-2508 for assistance.

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

ONE-TIME SHIPMENT REQUEST FOR TEXAS WASTE CODE FOR SHIPMENT OF CLASS 1, 2, 3 AND EPA HAZARDOUS WASTE

Pursuant to the generator notification requirements of 30 TAC Section 335.6, the generator of a solid waste is required to submit to the TNRCC detailed written information pertaining to the composition and characteristics of the waste. Please complete all applicable sections. Incomplete forms will delay processing. Assigned waste codes cannot be changed without prior approval from the TNRCC.

Please type or print legibly:

GENERATOR CONTACT PERSON
GENERATOR COMPANY NAME
GENERATOR MAILING ADDRESS
CITY, STATE, ZIP CODE
PHONE NO. ( ) -
FAX NO. ( ) -

COMPLETE ONLY IF NOT REGISTERED

Are you industrial? ☐ Yes ☐ No

If industrial, have you submitted TNRCC Initial Notification form (TNRCC-0002)? ☐ Yes ☐ No

Date submitted: _____

COMPLETE ONLY IF REGISTERED

_____
Solid Waste Registration No.

_____
U. S. EPA Identification No.

Generating Site Location (☐ Check if same as above) _____
(STREET ADDRESS OR PHYSICAL DESCRIPTION)

Designated Treatment, Storage, and/or Disposal Facility Name and Address _____

DESCRIPTION OF WASTE
(do not use DOT description or trade name)

1. _____
2. _____
3. _____
4. _____

TNRCC USE ONLY

For TNRCC Assignment of Texas Waste Code Number

TEXAS WASTE CODES

① FORM CODE	② CLASS CODE	③ EPA CODE	④ ORIGIN CODE

PROCESSED DATE:

PROCESSED BY:

TNRCC REGION: **OFFICE**

GENERATOR/REPRESENTATIVE

I certify that the above information is correct to the best of my knowledge.

I _____ *, am employed by:*
(NAME, Please Print)

(COMPANY NAME AND MAILING ADDRESS)

I am authorized to sign this certification for:

_____
(COMPANY NAME)

_____
(SIGNATURE)

_____
(DATE)

( )
(PHONE NUMBER)

INSTRUCTIONS FOR TNRCC FORM 0757

Nonindustrial nonhazardous generators should not use this form

This form may NOT be used to add a waste to a Texas generator's registration.

You may mail or fax the form to us. If a fax is sent, no hard copy is required.

Mail to: Waste Report Audit Team - MC 129, Waste Evaluation Section, I & HW, TNRCC**,** P.O. Box 13087, Austin, Texas 78711-3087, phone: (512) 239-6832, fax: (512) 239-0786.

FORM CODES (Column #1): Form Codes are published in the Initial Notification Packet and in the *Texas Register*, dated November 13, 1992, Volume 17, and may be obtained by calling (512) 239-0028. Ask for document #RG-22.

CLASS CODES (Column #2): Please make a hazardous waste determination by using:

"H" for hazardous

"1" for Class 1 nonhazardous

"2" for Class 2 nonhazardous

"3" for Class 3 nonhazardous

EPA HAZARDOUS WASTE NO. (EPA CODES) (Column #3): Please reference 40 CFR Part 261, Subpart C. If the waste is nonhazardous, please leave blank.

ORIGIN CODES (Column #4): Please review the origin codes below and select the code that best indicates the process or type of activity that generated this waste stream.

Code #

1 – Generated on-site from a product process or service activity.

2 – Spill clean-up, equipment decommissioning, or emergency removal by company.

3 – Derived from the on-site management of a nonhazardous waste.

4 – Waste received from off-site and not recycled or treated on-site.

5 – Residual from on-site treatment, disposal or recycling of hazardous waste.

6 – State, federal or locally funded cleanup.

7 – Corrective action or closure

Reasons for expediting one-time shipment (OTS) forms:

(all reasons must be submitted in writing with this form)

– Endangerment to human health or the environment

– Under a governmental order (i.e., Federal, State, County, etc.); copy of the order is required

– Financial duress: If results are not received within a specific time, the company will suffer temporary/ permanent close of business, bankruptcy, layoff of personnel, etc.

If you have any questions, please call (512) 239-6832.

* Conditionally Exempt Small Quantity Generator (CESQG): A non-industrial generator who generates no more than 100 kilograms (26½ gal or 220 pounds) of hazardous waste and no more than 1 kilogram (about 1 quart) of acutely hazardous waste in any calendar month (30 TAC 335.78). These generators are not regulated by TNRCC. The following codes should be assigned:

Solid waste registration number - CESQG EPA ID number - TXCESQG Sequence number - CESQ + form code + class code

TNRCC Acceptance of Foreign Laboratories Analytical Results

Background

The TNRCC requires permittees and others to submit lab results in a number of circumstances, for example, to substantiate the classification of solid waste. Although the TNRCC sometimes performs quality assurance audits of in-state laboratories, the state does not have a lab certification program and does not inspect out-of-state labs. However, the agency generally requires that all lab results to be considered by the TNRCC be performed using EPA-approved methods for wastewater-, surface water– and solid waste–related analysis, and the corresponding quality control results must be included with each sample result.

North American Free Trade Agreement (NAFTA)

The North American Free Trade Agreement (NAFTA) was designed to remove national barriers to trade between the U.S., Mexico, and Canada. Two chapters in particular are relevant to the foreign lab situation. Chapter 12 (Cross-Border Trade in Service) applies generally to measures affecting the purchase or use of, or payment for, a service. Article 1202 (National Treatment) provides that "Each Party [including states and provinces] shall accord to service providers of another Party treatment no less favorable than that it accords, in like circumstances, to its own service providers."
Analytical testing is also addressed in Chapter 9 of NAFTA (Standards-Related Measures). This chapter defines *standards-related measure* to include "conformity assessment procedure," which in turn is defined as "any procedure used, directly or indirectly, to determine that a technical regulation or standard is fulfilled, including sampling, testing, inspection, evaluation, verification, monitoring, auditing, assurance of conformity, accreditation, registration or approval...." Because the TNRCC requires analytical testing to ensure that its technical regulations are met, analytical testing meets the definition of conformity assessment procedure, and therefore is one type of standards-related measure addressed in Chapter 9.

Under this chapter, states may establish their own technical regulations and are entitled to provide conformity assessment procedures such as sampling, testing, or inspection to determine that these technical regulations or standards are fulfilled. However, Article 904(3) provides:

> Each Party shall, in respect of its standards-related measures, accord to goods and service providers of another Party:
>
> (a) national treatment in accordance with Article 301 (Market Access) or Article 1202 (Cross-Border Trade in Services); and
>
> (b) treatment no less favorable than that it accords to like goods, or in like circumstances to service providers, of any other country.

Thus, the TNRCC cannot refuse to accept analytical results based only on the fact that the lab that did the work is located in Mexico or Canada.

Taken together, Chapters 9 and 12 of NAFTA prevent states from discriminating against Mexican or Canadian labs by refusing to accept results from these labs. **However, NAFTA does not prohibit the TNRCC from holding foreign labs to the same standards applicable to domestic labs, nor is there any provision in NAFTA that would prevent the agency from requiring that analytical results be submitted in a particular language.**

General Agreement on Tariffs and Trade (GATT)

The General Agreement on Tariffs and Trade (GATT), which applies to measures taken by regional or local governments of its member nations, may also prohibit the TNRCC from discriminating against foreign labs. Annex IB to the GATT provides:

> *With respect to any measure covered by this Agreement, each Member shall accord immediately and unconditionally to services and service suppliers of any other Member, treatment no less favourable than that it accords to like services and service suppliers of any other country.*

Under this all-or-nothing provision, members may discriminate against all other member nations, but they may not treat some nations more favorably and others less favorably. Because NAFTA requires the TNRCC to accept lab results from Mexico and Canada, this Annex to the GATT requires that labs located in other GATT member nations must receive similar treatment.

Commerce Clause of the United States Constitution

A state agency policy that requires members of its regulatory community to use domestic laboratories only might be considered a *protectionist measure* that violates the Commerce Clause of the U.S. Constitution.

Hazardous waste is an object of commerce subject to protection under the Commerce Clause. *Nat l Solid Wastes Management Assoc. v. Alabama Dep t of Envtl. Management*, 910 F.2d 713 (11th Cir. 1990). Because the Constitution gives Congress the power to regulate interstate and foreign commerce, state laws that restrict the movement of hazardous waste across state or national boundaries or otherwise affect interstate commerce are subject to constitutional scrutiny. *Id.* However, Congress's broad powers to regulate both interstate and foreign commerce must be balanced against the states' police powers to regulate matters of local concern. *See* B.J. Wynne, III, *Interstate Waste: A Key Issue in Resolving the National Hazardous Waste Capacity Crisis*, 32 S. Tex. L. Rev. 601, 619 (1991). Accordingly, the test applied in deciding whether a state regulation violates the Commerce Clause is whether the state regulation is basically a protectionist measure, or whether the statute is directed to legitimate local concerns, with only incidental effects on commerce, and there are no less discriminatory means of accomplishing the state's objective. *Id.*; *City of Philadelphia v. New Jersey*, 437 U.S. 617 (1978).

Conclusion

By requiring favorable treatment of Mexican and Canadian service providers and by providing for equitable

administration of standards-related measures, NAFTA prevents the TNRCC from refusing to accept analytical results generated by Mexican or Canadian laboratories. Because the TNRCC may not categorically refuse to accept Mexican and Canadian lab results under NAFTA, the GATT's fairness provisions require that other members' laboratories must be treated on the same footing. Additionally, any discriminatory policy is vulnerable to Constitutional attack under the Commerce Clause as a protectionist measure. **Therefore, a state agency s refusal to accept results of analytical tests run in non-U.S. laboratories would violate the Commerce Clause of the U.S. Constitution, the North American Free Trade Agreement, and possibly other foreign trade agreements such as the GATT. However, the TNRCC may apply its normal quality assurance criteria to lab results from foreign labs.**

TNRCC Acceptance Requirements

As used in this context, *acceptance* means that the data generated by foreign laboratories are potentially useful in the decision-making process; however, it does not constitute "validation" of the data or "accreditation" of the laboratory. The TNRCC will consider the following items while evaluating foreign laboratory analytical results.

1. The method used to obtain the data must be a U.S. EPA-approved method described in *Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods*, EPA SW-846, *Methods for Chemical Analysis of Water and Wastes*, EPA-600/4-79/020, *Standard Methods for the Examination of Water and Wastewater*, *American Society for Testing and Materials (ASTM) Standard Methods* or any other EPA-approved methods; or the generator of the foreign waste may request in writing that the TNRCC review and approve an alternate method. A generator who proposes to use an alternate method must validate the alternate methods by demonstrating that the method is equal to or superior in accuracy, precision, and sensitivity to the corresponding SW-846, EPA-600/4-79/200, Standard Method, or ASTM method previously mentioned.

2. The analytical results must be accompanied by identification of method and corresponding quality assurance and quality control data for the method used to evaluate the constitutent(s) of concern reported.

   Quality assurance refers to identification, precision, accuracy, and error determination. *Quality control* refers to holding times, blank contamination, spike recovery, and detection capabilities.

3. Analytical results must be accompanied by a chain-of-custody record.

4. Analytical results must be written in a language that can be easily translated by knowledgeable agency personnel. If there is no agency person that can read the language used to report the analytical results, then it should be the responsibility of the generator to translate them.

5. If the TNRCC has any questions about quality assurance, the TNRCC will contact the U.S. agent representing the foreign waste generator.

Additional Requirements Specific to Transporters

30 TAC §312.146. Transporters—Discharge or Spills.

In the event of a discharge or spill of waste (applicable only to sludges and grease/grit trap wastes) during collection or transportation, the collector or transporter must take appropriate action to protect human health and the environment, e.g., notify local law enforcement and health authorities; dike the discharge area; clean up any waste discharge that occurs during transportation; or take such action as may be required or approved by federal, state, or local officials having jurisdiction so that the waste discharge no longer presents a public health or environmental problem. Transporters are responsible for reporting certain spills to the executive director in accordance with requirements of the *State of Texas Oil and Hazardous Substance Spill Contingency Plan* and the Texas Water Code Chapter (sic; Section) 26.039.

30 TAC §330.1005. Transporters of Medical Waste.

(a) The requirements of this section are applicable to any person who collects for transport or who transports untreated medical waste which is designated as a special waste from health care related facilities unless that person is exempt under the provisions of subsection (p) of this section.

(b) Transporters shall register their operations with the Commission no later than the effective date of these sections. Persons who plan to transport untreated special waste from health care related facilities after the effective date of this section shall register with the department prior to commencing operations. Registration forms will be provided by the department upon request. The following information must be provided for registration:

(1) name, address, and telephone number of registrant;

(2) name, address, and telephone number of partners, corporate officers, and directors;

(3) description of vehicles to be registered, including:

(A) make, model, and year of vehicle;

(B) motor vehicle identification number;

(C) vehicle license plate (tag) number including state and year; and

(D) name of vehicle owner; and

(4) name and driver's license number (including the state issuing the license) for all vehicle operators.

(c) Persons who apply to the department for registration and receive said registration shall maintain a copy of the registration form, as annotated by the department with an assigned registration number, at their designated place of business and in each vehicle used to transport untreated special waste from health care related facilities.

(d) Registrations shall expire 12 months after the date of issuance. Registrations are required to be renewed annually prior to the expiration date. Applications for renewal must contain the same information as the initial registration and shall be submitted to the department at least 60 days prior to the expiration date. An application for renewal may be obtained from the Texas Natural Resource Conservation Commission.

(e) Transporters shall notify the department, by letter, within 15 days of any changes to their registration if:

(1) the amount of untreated special waste from health care related facilities or total operation is expanded by 50% over that originally registered;

(2) the office or place of business is moved;

(3) the name of registrant or owner of the operation is changed;

(4) the name of the partners, corporate directors, or corporate officers change; or

(5) additional drivers are employed. The notification for additional drivers may be done at 6-month intervals.

(f) Revocation or denial of registration procedures are as follows.

(1) The department may revoke a registration or refuse to issue a registration for:

(A) failure to maintain a complete and accurate record of shipments of waste;

(B) failure to maintain vehicles in safe working order as evidenced by citations from the Texas Department of Public Safety or local traffic law enforcement agencies;

(C) falsification of waste shipping documents or shipment records;

(D) delivery of untreated special waste from health care related facilities to a facility not authorized to handle the waste;

(E) failure to comply with any rule or order issued by the department pursuant to the requirements of this chapter;

(F) failure to submit required annual reports or pay registration fees;

(G) failure to maintain insurance or provide proof of insurance as required in subsection (j) of this section;

(H) illegal disposal of untreated or treated medical waste; or

(I) collection or transportation of medical waste without registration as required in this section.

(2) Appeal of revocation or denial procedures are as follows.

(A) An opportunity for a formal hearing on the revocation of registration may be requested in writing by the registrant by certified mail, return receipt requested, provided the request is postmarked within 20 days after a notice of revocation has been sent from the department to the last known address of the registrant. If the registration is revoked, a transporter shall not transport untreated special waste from health care related facilities regulated under this subchapter. The period of revocation shall be not less than one year nor more than 5 years.

(B) An opportunity for a formal hearing on the denial of registration or renewal of registration may be requested in writing by the applicant by certified mail, return receipt requested, provided the request is postmarked within 20 days after a notice of denial has been sent from the department to the address listed on the application. If the registration is denied, a person shall not collect or transport untreated special waste from health care related facilities regulated under this subchapter.

(g) Requirements for vehicles used to collect or transport untreated medical waste are as follows.

(1) Vehicles used to collect and or transport medical waste shall:

(A) have a fully enclosed, leak-proof, cargo-carrying body, such as a cargo compartment, box trailer, or roll-off box;

(B) protect the waste from mechanical stress or compaction;

(C) **carry spill cleanup equipment including, but not limited to, disinfectants, absorbent materials, personal protective equipment, such as gloves, coveralls, and eye protection, and leak-proof containers or packaging materials;** and

(D) have the following identification on the two sides and back of the cargo-carrying compartment in letters at least three inches high:

(the name of the transporter)
TDH: (the TDH-assigned registration number)
Caution: Medical Waste.

(2) The cargo compartment of the vehicle shall:

(A) be maintained in a sanitary condition;

(B) be locked when the vehicle is in motion;

(C) be locked when waste is present in the compartment except during loading or unloading of waste;

(D) have a floor and sides made of an impervious, nonporous material; and

(E) have all discharge openings securely closed during operation of the vehicle.

(h) Vehicles used to transport medical waste shall not be used to transport any other material until the vehicle has been cleaned and the cargo compartment disinfected. A written record of the date and the process used to clean and disinfect the vehicle shall be maintained for three years unless the department shall direct a longer holding period. The record must identify the vehicle by motor vehicle identification number or license tag number. The owner of the vehicle, if not the registrant, shall be notified in writing that the vehicle has been used to transport medical waste and when and how the vehicle was disinfected.

(I) Shipments of untreated special waste from health care related facilities shall not be commingled or mixed during transport or storage with trash, rubbish, garbage, hazardous waste, asbestos, or radioactive waste regulated under Chapter 289 of this title (relating to Occupational Health and Radiation Control).

(j) Each transporter shall, unless otherwise exempted, excluded, or prohibited by law, provide evidence of financial responsibility as follows:

(1) a general liability policy with $1 million per occurrence and $2 million aggregate limits;

(2) a combined, single-limit automobile liability insurance policy with limits of at least $1 million per accident; and

(3) either a pollution liability policy with a flat limit of $1 million; or

(4) an irrevocable letter of credit as follows.

(A) Each transporter shall provide an irrevocable letter of credit from a recognized financial institution payable to the Texas Department of Health (department) in the following amount:

(I) if the transporter registers three or less self-contained trucks or transport vehicles (not tractor-trailer units), a letter for $10,000;

(ii) if the transporter registers more than three self-contained trucks or transporter vehicles (not tractor-trailer units), a letter for $35,000;

(iii) if the transporter registers three or less tractor-trailer vehicles, a letter for $25,000; or

(iv) if the transporter registers more than three tractor-trailer vehicles, a letter for $50,000.

(B) Requests for registration or renewal received after the effective date of this paragraph shall comply with the provisions of this paragraph. Transporters registered with the department prior to the effective date of this paragraph may comply with the requirements of this subsection or comply with the requirements in effect at the time of their registration until their renewal date.

(k) The transporter shall furnish the generator a signed receipt for each shipment at the time of collection of the waste. The receipt shall include the name, address, telephone number, and registration number of the transporter. The receipt shall also identify the generator by name and address, and shall list the weight of waste collected and date of collection. If certified scales are not available, the number of containers shall be listed, and the transporter must provide the generator with a written statement of the total weight of the containers within 30 days.

(l) The transporter shall initiate and maintain a record of each waste shipment collection and deposition. Such record shall be in the form of a waste shipping document or other similar documentation approved by the department. Forms will be provided by, or may be approved by, the department. The transporter shall retain a copy of all waste shipping documents showing the collection and disposition of the medical waste. Copies of waste shipping documents shall be retained by the transporters for three years in the main transporter office and made available to the department upon request. The waste shipping document shall include the:

(1) transporter's name, address, telephone number, and department's assigned transporter registration number;

(2) name and address of the person who generated the untreated special waste from health care related facilities and the date collected;

(3) number of containers of untreated special waste from health care related facilities collected for transportation and the total weight of the containers from each generator which must be added when certified scales are available;

(4) name of persons collecting, transporting, and unloading the medical waste;

(5) date and place where the untreated special waste from health care related facilities was deposited or unloaded;

(6) identification (permit or registration number, location, and operator) of the facility where the untreated special waste from health care related facilities was deposited; and

(7) name and signature of facility representative acknowledging receipt of the untreated special waste from health care related facilities and the weight of waste received.

(m) The transporter must be able to provide documentation of each waste shipment from the point of collection through and including the unloading of the waste at a facility permitted to accept the waste. The transporter is responsible for the proper collection and deposition of untreated medical waste accepted for transport.

(n) Shipments of untreated special waste from health care related facilities shall be deposited only at a facility which has been permitted by the department to accept untreated special waste from health care related facilities. Untreated special waste from health care related facilities may be deposited at facilities permitted by the Texas Natural Resource Conservation Commission (commission) only with the written authorization of the commission and the written concurrence of the department. Untreated special waste from health care related facilities which is transported out of the state must be deposited at a facility which is permitted by the appropriate state agency having jurisdiction to accept such waste.

(o) Transporters shall not accept untreated medical waste which is not packaged in accordance with the provisions of §330.1004(I) of this title (relating to Generators of Medical Waste). Transporters shall not accept containers of medical waste which are leaking or damaged unless or until the shipment has been repackaged.

(p) Exemptions are as follows.

(1) Generators who generate less than 50 pounds per month of special waste from health care related facilities may transport their own untreated waste to a registered medical waste collection station, a transfer station, a storage facility, or a processing facility without complying with the requirements of this section. Untreated waste may be transported to a landfill only in accordance with the provisions of §330.136 of this title (relating to Disposal of Special Wastes).

(2) Generators who generate more than 50 pounds per month of special waste from health care related facilities may transport their own waste to a transfer station, a storage facility, or a processing facility and shall comply with subsections (g)-(o) of this section; they shall be exempt from subsections (a)-(f) of this section. These generators must notify the department that they are transporting their own waste and must submit an annual summary report. Untreated waste may be transported to a landfill only in accordance with the provisions of §330.136 of this title (relating to Disposal of Special Wastes).

(3) Generators who are located in facilities contiguous to a permitted processing facility may transport their untreated waste to the processing facility without complying with the requirements of §330.1004(I) of this title (relating to Generators of Medical Waste) provided the waste is identified as untreated waste, and provided the waste is not transported along a public roadway or right-of-way.

30 TAC §335.93. Hazardous Waste Discharges.

(a) In the event of a discharge of hazardous waste during transportation, the transporter shall notify the commission as soon as possible and not later than 24 hours after the occurrence according to the provisions of the Texas Water Code, §26.039, and the procedures set out in the *State Oil and Hazardous Substances Spill Contingency Plan*, and also take appropriate immediate action to protect human health and the environment (e.g., notify local authorities, dike the discharge).

(b) If a discharge of hazardous waste occurs during transportation and a Commission official acting within the scope of his official responsibilities determines that immediate removal of the waste is necessary to protect human health or the environment, that official may authorize the removal of the waste by transporters who do not have EPA identification numbers and without the preparation of a manifest.

(c) An air, rail, highway, or water transporter who has discharged hazardous waste must also:

(1) Give notice, if required by 49 Code of Federal Regulations §171.15, to the National Response Center (800-424-8802 or 202-426-2675); and

(2) Report in writing as required by 49 Code of Federal Regulations §171.16 to the Director, Office of Hazardous Waste Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, D.C. 20590.

(d) A water (bulk shipment) transporter who has discharged hazardous waste must give the same notice as required by 33 Code of Federal Regulations §153.203 for oil and hazardous substances.

(e) A transporter must clean up any hazardous waste discharge that occurs during transportation or take such action as may be required or approved by the commission so that the hazardous waste discharge no longer presents a hazard to human health or the environment.

Natural Resource Damage Assessment
Trustee Roles and Responsibilities

Introduction

The purpose of this chapter is to describe general Natural Resource Trustee (trustee) authorities, responsibilities, and roles following a discharge of oil or a release of hazardous substances. The three major areas of trustee responsibility include prevention and/or minimization of injury during the response phase, assessment of injury during and after response, and restoration of natural resources injured or natural resource services lost due to the discharge or release. Although there are legal distinctions between responsibilities for response and natural resource damage assessment (NRDA) activities, this distinction does not preclude overlap in terms of required actions and information needs during the response phase. The differences between these responsibilities, and how coordination should occur between Natural Resource Trustee and response agency representatives performing their respective duties will be detailed in this chapter.

Statutory Authority and Agreements

Under the following authorities, different state and federal agencies and Indian Tribal Governments are designated as Natural Resource Trustees to act on behalf of the public.

- Oil Pollution Act of 1990 (OPA; 33 USCA §2706)
- Federal Water Pollution Control Act (FWPCA; 33 USCA §1321(j)(4))
- Comprehensive Environmental Response and Compensation Act (CERCLA; 42 USCA §9607(f)(1))
- Oil Spill Prevention and Response Act of 1991 (OSPRA; 40 Tex. Nat. Res. Code)
- National Contingency Plan (NCP), Federal Register vol. 59, no. 178, 47451; 43 CFR Part 11, NRDA

Further, the state of Texas has adopted Natural Resource Damage Assessment (NRDA) rules for oil spills in coastal environments (31 TAC §20) to address assessment procedures and protocols for determining, quantifying and valuing natural resource injury and loss of services. Federal NRDA regulations for oils spills promulgated under OPA-90 (15 CFR Part 990) were recently revised. The OPA rules are compatible with the state rules and available for use to both state and federal trustees.

State of Texas and federal trustee agencies (DOI, NOAA) have developed a state/federal memorandum of agreement that outlines a cooperative working relationship (executed 1995).

Designated trustee agencies are:

Federal
National Oceanic and Atmospheric Administration (NOAA)
Department of the Interior (DOI)
Other federal agencies; e.g., Department of Energy, Department of Defense, Department of Agriculture

Indian Tribal Governments

State
Texas Natural Resource Conservation Commission (TNRCC)
Texas Parks and Wildlife Department (TPWD)
Texas General Land Office (GLO)

In some cases, a single agency will have both regulatory/response (e.g., on-scene coordinator (OSC), scientific support coordinator (SSC)) and trustee/NRDA responsibilities for a release of hazardous substances or discharge of oil. Agencies with the potential for dual responsibilities include the GLO (coastal oil spills), the TNRCC (hazardous substances spills, inland oil spills), and NOAA (releases of oil or hazardous substances affecting NOAA resources). These agencies should strive to have separate personnel performing response and NRDA roles.

Trustee Objectives

CERCLA, OPA, OSPRA, and the NCP define trustee responsibilities as including protection of natural resources from releases or threat of releases of oil or hazardous substances, and restoring resources injured or lost as a result of a discharge of oil or release of hazardous substances.

Input by trustees to the planning section or directly to the FOSC/SOSC during the response phase may reduce the impact of the spill or release on natural resources, lessening the potential need for restoration and the associated natural resource damages liability to the potentially responsible party.

After a discharge of oil or release of hazardous substance, or the threat of discharge or release, the trustees' two primary roles are:

- to advise the OSC on response and remedial actions with the intent to minimize or mitigate the effects of a release or discharge on natural resources, and
- to restore injured natural resources through the Natural Resource Damage Assessment and Restoration process.

Trustees must be notified and consulted by the OSC on all significant releases of hazardous materials or discharges of oil.

For discharges of oil, recommendations on what immediately constitutes a significant discharge are as follows:

Coastal: > 500 gallons (12 bbls)
Inland: > 500 gallons (12 bbls)

Notification is also required if discharges of lesser volumes of oil result in potential impacts to natural resources, including oiling of habitats, or occur in sensitive environments such as wetlands.

For releases of hazardous materials, due to the potential for relatively small volumes of hazardous materials to create extremely toxic effects in the environment, trustees must be notified and consulted on all releases of hazardous materials which have the potential to result in injuries to natural resources.

Notification

Explanation of Process as Required by the NCP and OSPRA

- **40 CFR §300.135(j)(1)** The OSC shall ensure that the trustees for natural resources are promptly notified of discharges of oil or releases of hazardous materials. Also see §300.305(e) and §300.410(h).

- **31 TAC §20.20(a)** The Texas General Land Office shall notify all state trustees of all reported discharges of oil into coastal waters.

- **40 CFR §300.615 (b)** Trustees are responsible for designating to the Regional Response Teams (RRTs) and the Area Committees, for inclusion in the Regional Contingency Plan (RCP) and Area Contingency Plans (ACPs), appropriate contacts to receive notifications from the OCSs/Remedial Project Manager (RPMs) of discharges or releases.

- **31 TAC §20.20 (b)** After observing the characteristics of the unauthorized discharge of oil and the affected natural resources, if the state on-scene coordinator (SOSC) determines that the quantity or properties of the oil discharged or the natural resources potentially impacted by the oil differ significantly from the initial report, the SOSC shall promptly provide the state trustees with an updated report.

List of Contacts

To fulfill the notification requirements outlined in the NCP and OSPRA the following trustee representatives should be contacted by the OSC:

DOI: Primary: Mr. Glenn Sekavec
(505) 766-3565
(505) 797-0556 24 hr.
(505) 249-2462 Cellular
(505) 766-1059 Fax

Secondary: Dr. Steve Spencer
(505) 766-3565
(505) 892-7305 24 hr.
(505) 249-2462 Cellular
(505) 766-1059 Fax

NOAA: Primary: CDR Gary Petrae
(206) 526-6949
(800) 759-7243 PIN 5798803 pager
(206) 526-6317 24 hr. number
(206) 526-6329 Fax

Secondary: LCDR Wade Blake
(206) 526-6326
(800) 759-7243 PIN 2168798 pager
(206) 526-6317 24 hr. number
(206) 526-6329 Fax

TNRCC: Primary: Mr. Richard Seiler
(512) 239-2523
(512) 604-2141 pager
(512) 239-2469 Fax

Secondary: Ms. Ginny King
(512) 239-2152
(512) 604-4407 pager
(512) 239-2469 Fax

TPWD: Primary: Mr. Don Pitts
(512) 389-4640
(512) 896-2883 pager
(512) 389-4848 24 hr.

(512) 398-4799 Fax

Secondary: Mr. Dave Buzan
(512) 912-7016
(512) 896-2705 pager
(512) 389-4848 24 hr.
(512) 707-1358 Fax

GLO: Primary: Ms. Diane Hyatt
(512) 475-1395
(800) 796-7363 PIN 100-2161 pager
(512) 463-5367 Fax

Secondary: Mr. Peter Samuels
(512) 463-5047
(512) 473-5900 pager
(512) 463-5367 Fax

Organizational Structure and Process

The NCP directs OSCs to work with all Natural Resource Trustees during specific response activities so trustees may help ensure that important natural resources are protected when they are at risk from an actual or threatened oil discharge and/or hazardous substance release. The NCP further directs trustees to provide timely advice to the OSC concerning recommended actions in reference to natural resources potentially affected by oil discharges and/or hazardous substance releases. During emergency response, Natural Resource Trustees will: (1) provide technical assistance to the OSC on appropriate response techniques within environmentally sensitive areas; (2) direct wildlife recovery and rehabilitation activities; (3) provide information to the OSC on threatened and endangered species and their supporting habitats; (4) provide information to the OSC on archaeological, cultural, and historic sites; and (5) provide information on other natural resources and land areas under their jurisdiction and many other types of scientific expertise to the OSC.

Trustees have the following resources and relevant expertise to provide to the OSC during a spill event:

NOAA: NOAA acts as trustee for natural resources managed or controlled by the Department of Commerce and for natural resources that are found in, under, or using waters navigable by deep-draft vessels, tidally influenced waters, or waters of the contiguous zone, the exclusive economic zone, and the outer continental shelf.

Examples of the NOAA's trusteeship include the following natural resources and their supporting ecosystems: All life stages of marine fishery resources; anadromous and catadromous fish throughout their ranges; certain endangered and threatened species and marine mammals; tidal wetlands; and the resources of National Marine Sanctuaries and National Estuarine Research Reserves.

The NOAA Scientific Support Team, headed by the Scientific Support Coordinator (SSC), works directly for the OSC and does not represent NOAA's trustee interests.

DOI: Natural resources under the trusteeship of the DOI include: (1) resources on, over, or under lands owned by the United States and managed by the DOI. Examples include resources in national parks, monuments, and seashores, national wildlife refuges and fish hatcheries, public lands and other project lands and properties; (2) natural resources, not on lands described above, for which the DOI has specific authority to manage or protect. Examples include mineral resources on the outer continental shelf, federal minerals on private or non-Interior lands, water resources stored or regulated by Interior projects, migratory birds and certain anadromous fish, certain endangered and threatened species and marine mammals and wild and scenic rivers; and (3) natural resources protected by treaty or other authority pertaining to Native American tribes or located on lands held by the United States in trust for Native American tribes, communities, or individuals.

There are eight bureaus within the DOI, each with a myriad of expertise and/or responsibility for managing DOI trust resources. The DOI Regional Environmental Officer provides a single point of contact for emergency planning and preparedness, emergency response/removal actions, natural resource damage assessment, and restoration activities.

TNRCC: The TNRCC has regional field offices located statewide with professional personnel trained in water, sediment, and biological sampling; data analysis; knowledge of water, sediment, and biological quality of local water bodies; expertise in Texas surface water quality standards and investigation of impacts to water quality; use of biological indices for aquatic environments; expertise in marine and freshwater ecology; and historical surface water quality data.

The TNRCC is a designated trustee for surface water resources, sediments, groundwater resources, and air resources within the state of Texas.

TPWD: The TPWD has offices and laboratories throughout Texas with personnel experienced in sampling and monitoring of biological communities, surface water quality and contaminants in organisms, water and sediments, knowledge of current biological conditions of coastal and inland water bodies; presence of threatened and endangered species, and wildlife rehabilitation. The Department has law enforcement capabilities including enforcing fish and wildlife regulations and recreational and commercial use closures. Staff can provide information on local hydrology and access points.

The TPWD is a designated trustee for all fish, wildlife, and other biota of the state of Texas and the habitats upon which they depend.

GLO: The GLO has offices located throughout Texas with personnel trained in surveying, data analysis, knowledge of water, ecological processes, boats, and monitoring of natural resources. The GLO, in coordination with TNRCC and TPWD, has developed a coastal natural resource inventory, which is currently available for use. The GLO has expertise in state and federal coastal rules and regulations, economics, and coastal ecology. The GLO can provide instantaneous tide data, and also has an archive of historical photographs. The GLO is title holder and manager of all submerged and some upland state-owned lands.

The GLO is a designated trustee for all land, fish, shellfish, fowl, wildlife, biota, vegetation, air, water, groundwater, and other similar resources owned, managed, held in trust, regulated, or otherwise controlled by the state of Texas.

Trustee Coordination

Coordination and cooperation among state and federal trustee agencies in carrying out NRDA responsibilities is essential due to overlapping trust natural resources and/or jurisdictions. Trustees work as a team in the development of unified approaches to the response, NRDA, and restoration process.

Trustee Organization under the Incident Command System

The involvement of trustee(s) in response decisions is required under the NCP and 31 TAC §20.20. Ultimately response decisions are the responsibility of the OSC. However, response and NRDA activities should be viewed as complementary rather than conflicting. Trustee input can be instrumental in preventing natural resource injury or losses, thus lessening postcleanup liability for responsible parties. Exchange of information to and from the trustees during response will normally occur through the Planning Section of the Incident Command System (ICS).

When an Incident Command System (ICS) has been established, Natural Resource Trustee activities will be coordinated within the ICS to improve communication, avoid duplication of efforts and make the most efficient use of available personnel and equipment.

Trustees will consult directly with the OSC in the event trustee concerns are not being adequately addressed within the ICS.

To the extent possible, a representative of each participating trustee agency should be available at the physical location of the Planning Section of the ICS at all times during a spill.

For the purposes of Natural Resource Damage Assessment, as soon as possible the trustees will appoint a Lead Administrative trustee agency (LAT). The LAT's role in oil spill damage assessment is defined in Appendix E to the National Contingency Plan.

Natural Resource Injury Minimization Activities

The involvement of trustee(s) in response decisions is required under the NCP §300.135(j)(2) and 31 TAC §20.20. Ultimately response decisions are the responsibility of the OSC. However, response and NRDA activities should be viewed as complementary rather than conflicting. Trustee input can be instrumental in preventing natural resource injury or losses, thus lessening postcleanup liability for responsible parties. Exchange of information should occur through the SSC in the role as OSC liaison unless otherwise requested by the OSC.

Identification and Prioritization of Resources at Risk

Trustees shall supplement the OSC's information on sensitive or valuable resources. The trustees will provide local expertise and up-to-date information on these natural resources. The trustees shall also aid the OSC in prioritizing of sensitive habitat and resources requiring protection.

Evaluate Protective Measures and Cleanup Strategies

According to the NCP and 31 TAC §20.20, the OSC is required to consult with trustees on proposed response actions.

Trustees are required to provide timely advice (within the same operational period, if practicable) on proposed actions related to potentially affected trust resources.

Trustees shall advise appropriate response personnel in discussions on determination of emergency phase cleanup end points, i.e., how clean is clean.

Shoreline Cleanup Assessment Team (SCAT)

Trustees shall provide members for the SCAT, as appropriate. Observations relevant to natural resource injury determination made by SCAT members will be referred to trustee representatives with NRDA responsibility.

Postcleanup Inspection (Sign-off Team)

Trustees will participate on inspection teams at completion of cleanup activities, and will advise the OSC on any additional cleanup work deemed necessary.

Emergency Restoration

(43 CFR 11.21(b) and 61 FR(4):446) If response actions undertaken by the lead response agency or RP are insufficient to prevent additional injury to natural resources, the trustees may undertake emergency restoration actions to reduce the threat of additional injury. Prior to undertaking any emergency restoration actions, the trustees will first ask the OSC to undertake the needed actions. Emergency restoration activities initiated by the trustees will not interfere with the ongoing response.

Wildlife Rehabilitation

Trustee representatives will participate through the ICS regarding rescue and rehabilitation of injured wildlife. Trustee representatives will ensure that proper rehabilitation organizations are contacted and that proper permits have been obtained and will provide advice on proper handling and rehabilitation techniques. Trustees will also maintain chain of custody for wildlife unable to be rehabilitated.

Natural Resource Injury Determination Activities

Exposure Documentation

Injury documentation requires gathering information on spilled/released product pathways, documenting exposure to specific resources along those pathways, and quantification of injuries caused by the product. Direct or indirect exposure to the product may injure/disrupt natural resources and/or services provided by

those resources.

Natural resource injury includes the lost use of services provided by the natural resources (recreational and commercial uses, passive uses—43 CFR Part 11; 15 CFR Part 990; 31 TAC §20.32 (c)).

Within the first 24-48 hrs. (or to the extent practical), trustees will focus their efforts on gathering and preserving perishable data. Baseline water column data will be collected as soon as possible.

A source sample of the product with appropriate chain of custody will be collected and archived for future characterizations.

To the extent practical, there will be coordination between trustee agencies, the OSC, and the RP in the collection of physical, chemical and biological data, sample and laboratory protocols, and work plans necessary for initiating injury determination activities.

Trustees will coordinate appropriate injury determination activities with the OSC to ensure that these activities will not interfere with response activities.

Trustee and/or PRP Coordination

Trustees will identify a LAT within 48 hours to serve as a single point of contact for the RP.

Trustees will function as a coordinated team as prescribed in existing state trustee, federal-state trustee and/or case-specific Memoranda of Agreement.

Responsible parties shall be invited to participate in the assessment process. Cooperation between trustees and RPs can greatly minimize costs by eliminating parallel assessments. Due to statutory responsibilities, trustees must maintain decision-making authority during any cooperative efforts.

A binding written agreement for preassessment activities will be jointly developed when trustees and responsible parties are working on a cooperative assessment.

Written stipulations of fact regarding the specific spill may be developed to document agreements reached during the assessment process and to ensure all parties that a cooperative assessment is staying on track.

Use of Chemical Agents, Biological Agents, and Other Additives

Federal Preapproval

40 CFR §300.905 NCP Product Schedule.

(a) Oil Discharges.

(1) EPA shall maintain a schedule of dispersants and other chemical or bioremediation products that may be authorized for use on oil discharges in accordance with the procedures set forth in 40 CFR §300.910. This schedule, called the NCP Product Schedule, may be obtained from the Emergency Response Division (5202-G), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. The telephone number is 1-202-260-2342.

(2) Products may be added to the NCP Product Schedule by the process specified in 40 CFR §300.920.

(b) Hazardous Substance Releases. [Reserved]

40 CFR §300.910 Authorization of use.

(a) RRTs and Area Committees shall address, as part of their planning activities, the desirability of using appropriate dispersants, surface washing agents, surface collecting agents, bioremediation agents, or miscellaneous oil spill control agents listed on the NCP Product Schedule, and the desirability of using appropriate burning agents. RCPs and ACPs shall, as appropriate, include applicable preauthorization plans and address the specific contexts in which such products should and should not be used. In meeting the provisions of this paragraph, preauthorization plans may address factors such as the potential sources and types of oil that might be spilled, the existence and location of environmentally sensitive resources that might be impacted by spilled oil, available product and storage locations, available equipment and adequately trained operators, and the available means to monitor product application and effectiveness. The RRT representatives from EPA and the states with jurisdiction over the waters of the area to which a preauthorization plan applies and the DOC and DOI natural resource trustees shall review and either approve, disapprove, or approve with modification the preauthorization plans developed by Area Committees, as appropriate. Approved preauthorization plans shall be included in the appropriate RCPs and ACPs. If the RRT representatives from EPA and the states with jurisdiction over the waters of the area to which a preauthorization plan applies and the DOC and DOI natural resource trustees approve in advance the use of certain products under specified circumstances as described in the preauthorization plan, the OSC may authorize the use of the products without obtaining the specific concurrences described in paragraphs (b) and (c) of this section.

(b) For spill situations that are not addressed by the preauthorization plans developed pursuant to paragraph (a) of this section, the OSC, with the concurrence of the EPA representative to the RRT and, as appropriate, the concurrence of the RRT representatives from the states with jurisdiction over the navigable waters threatened by the release or discharge, and in consultation with the DOC and DOI natural resource trustees, when practicable, may authorize the use of dispersants, surface washing agents, surface collecting agents, bioremediation agents, or miscellaneous oil spill control agents on the oil discharge, provided that the products are listed on the NCP Product Schedule.

(c) The OSC, with the concurrence of the EPA representative to the RRT and, as appropriate, the concurrence of the RRT representatives from the states with jurisdiction over the navigable waters threatened by the release or discharge, and in consultation with the DOC and DOI natural resource trustees, when practicable, may authorize the use of burning agents on a case-by-case basis.

(d) The OSC may authorize the use of any dispersant, surface washing agent, surface collecting agent, other chemical agent, burning agent, bioremediation agent, or miscellaneous oil spill control agent, including products not listed on the NCP Product Schedule, without obtaining the concurrence of the EPA representative to the RRT and, as appropriate, the RRT representatives from the states with jurisdiction over the navigable waters threatened by the release or discharge, when, in the judgment of the OSC, the use of the product is necessary to prevent or substantially reduce a hazard to human life. Whenever the OSC authorizes the use of a product pursuant to this paragraph, the OSC is to inform the EPA RRT representative and, as appropriate, the RRT representatives from the affected states and, when practicable, the DOC/DOI natural resources trustees of the use of a product, including products not on the Schedule, as soon as possible. Once the threat to human life has subsided, the continued use of a product shall be in accordance with paragraphs (a), (b), and (c) of this section.

(e) Sinking agents shall not be authorized for application to oil discharges.

(f) When developing preauthorization plans, RRTs may require the performance of supplementary toxicity and effectiveness testing of products, in addition to the test methods specified in 40 CFR §300.915 and described in Appendix C to part 300, due to existing site-specific or area-specific concerns.

State of Texas Preapproval

In all cases, the use of chemical agents, dispersants, bioremediation technology, or other additives utilized in combating spills in water in this state must be approved in advance on a case-by-case basis by the predesignated federal on-scene-coordinator (OSC) in accordance with the *National Oil and Hazardous Substances Pollution Contingency Plan*, hereinafter referred to as the NCP (40 CFR Part 300). **The NCP, in conjunction with the federal Region 6 contingency plan indicates that for approval of any use, the OSC must first obtain the concurrence of the Texas Natural Resource Conservation Commission or the General Land Office except when, in the judgment of the OSC, the immediate use of the chemical agent or other additive is necessary to prevent or substantially reduce a hazard to human life.** When a product

is used to prevent or reduce a hazard to human life, the OSC is to inform the TNRCC or the GLO as soon as possible and to obtain TNRCC or GLO concurrence for its continued use once the threat to human life has subsided (40 CFR §300.84).

The TNRCC, GLO, and RRC all recognize that the inherent value of surface collecting agents is in their prompt use in preventing the spread of spilled oil. The person responsible for the containment and cleanup of an oil spill may use a surface collecting agent without prior approval of the TNRCC. This in no way relieves the responsible person of legal responsibility for any adverse effects caused by the use of the surface collecting agent or the spilled oil. However, the Regional Response Team (RRT) must approve the use of any chemical agent except where the OSC feels that human life is in danger.

During the course of cleanup and restoration activities, staff of the state agency with lead jurisdiction shall consult with representatives of the other state agencies regarding the application for use of dispersants, chemical agents, bioremediation technology, or other additives.

Through the activities of the RRT, the various state agencies with primary jurisdiction have participated in preapproval planning. Presently, there is an existing preapproval for the offshore Gulf of Mexico area in federal Region 6 related to dispersant use and in situ burning. Details of the preapprovals are known to the U.S. Coast Guard on-scene coordinators to whom the RRT has issued the preapprovals.

Submission of Written Reports to the TNRCC

Written Information Submitted to the TNRCC under 30 TAC §§327.1-327.5

As outlined in 30 TAC 327.5(c), the person responsible for a spill or discharge shall submit written information, such as a letter, describing the details of the discharge or spill and supporting the adequacy of the response action, to the appropriate TNRCC regional manager within 30 working days of the discovery of the reportable discharge or spill. The regional manager has the discretion to extend the deadline. The documentation shall contain one of the following items:

(1) A statement that the discharge or spill response action has been completed and a description of how the response action was conducted. The statement shall include the initial report information required by 30 TAC §327.3(c). The executive director may request additional information. Appropriate response actions at any time following the discharge or spill include use of the Risk Reduction Rules in 30 TAC §335.8 or other appropriate agency risk-based corrective action programs.

(2) A request for an extension of time to complete the response action, along with the reasons for the request. The request shall also include a projected work schedule outlining the time required to complete the response action. The executive director may grant an extension of up to six months from the date the spill or discharge was reported. Unless otherwise notified by the appropriate TNRCC regional manager or the TNRCC Emergency Response Unit, the responsible person shall proceed according to the terms of the projected work schedule.

(3) A statement that the discharge or spill response action neither has been completed nor is expected to be completed within the maximum allowable six-month extension. The statement shall explain why completion of the response action is not feasible and shall include a projected work schedule outlining the remaining tasks to complete the response action. This information will also serve as notification that the response actions to the discharge or spill will be conducted under the Risk Reduction Rules in 30 TAC §335.8 or other TNRCC risk-based corrective action rules, and shall indicate the appropriate risk-based corrective action program.

This following outline is offered as guidance for spill response report preparation and includes information that a responsible party or cleanup contractor may routinely choose to retain for historical documentation of the discharge or spill event. As described in §26.042 of the Texas Water Code, if the executive director requires more information about a spill, he may request some or all of the following information.

Background Information

1. The time and date of occurrence and time and date of discovery.

2. The type of material discharged or spilled. A Material Safety Data Sheet (MSDS) or other chemical information for each material released may be included.

3. The amount of material discharged or spilled:

    a. To a surface water body. (e.g., a stormwater ditch, bayou, creek, river, or bay).

    b. To the land. Include a description of the surface material that has been affected (e.g., concrete, soil, limestone, etc.) and a description of the land area (e.g., coastal, fixed inland site, wetlands, etc.).

    c. To the air. Describe the duration and intensity of the emission, any information about the nature of the emission including a visible emissions evaluation, and any actions taken to mitigate the effects of the discharge or spill.

    Include a scale map, indicating the lateral extent of the material discharged or spilled as well as all bodies of water affected.

4. Location of the site affected by the discharge or spill.

    a. The name of the facility, if different from the responsible person.

    b. The facility's Texas solid waste generator number and EPA registration number, if applicable.

    c. The address. Both the physical address for the location of the discharge or spill and the mailing address for the responsible person, if different.

    d. The name and phone number for a contact person at the site.

    e. If the location of the discharge or spill is not owned by the responsible person, then a list of the names, addresses, and phone numbers of the property owners might be provided.

5. The time and date that the TNRCC was notified, including:

    a. The name of the representative of the responsible person who reported the incident to the commission.

    b. The name of the commission representative who received the report from the responsible person.

    c. If the commission conducted a site visit, the name of the TNRCC inspector and the date of the site visit.

6. Other agencies notified, including the time and date of the notification and the contact person.

Response Chronology

A time and date chronology of the response actions taken by the responsible person. The chronology should describe the nature of the response actions (the name, address, and phone number of the response contractor as well as the name of a contact person, if different than the responsible person; the date and time of the first containment actions and the name of the individuals or company conducting these activities; a detailed description of the containment equipment and personnel used; a description of the effectiveness of the initial response actions; etc.);

Meteorology

Describe weather conditions during the incident and include a discussion of how the weather conditions may have helped or hindered the cleanup activities.

Reported Injuries

Describe any reported injuries or fatalities.

Remediation of Contamination

Describe actions taken to remove or neutralize the substances discharged or spilled including:

1. The amount of substances recovered and contained.

2. The amount of substances lost to the environment.

3. If soil was affected, the amount of substances removed. A scaled map indicating the lateral and vertical extent of the excavation activities might also be included.

4. The disposition of the excavated substances, the recovered substances and any additional wastes generated from the cleanup activities, including any on-site and off-site storage, processing, or treatment. If the material is stored at an off-site location, the responsible person must include the name, physical address, and phone number for the storage facility.

Sampling and Analysis

A description of all sampling activities including:

- A list of the persons collecting the samples.

- A scaled map indicating the lateral and vertical location of the sampling locations.

- A tabulation of the analyses performed and the analytical methods used.
- The name and address of the laboratory conducting the analytical work.
- The name and address of the supplier of the sample containers.
- A copy of the analytical results as reported by the laboratory to the responsible person.

Waste Classification and Disposal

Provide a description of the EPA and TNRCC waste classification and waste code numbers including:

- Copies of any analytical results used to obtain the waste classifications as well as any correspondence received from the TNRCC.
- A listing of any temporary generator or transporter numbers used, if applicable.
- Copies of the manifests used for the shipment of the wastes.
- The name, address, and phone number of the facility receiving the waste.

Reports Submitted by Contractors Employed on State-Funded Cleanups

Site Description

A. Site Name (include all past and present)

B. EPA and/or State Identification Number

C. Address and Location Description

D. Brief History or Description of Operational Activities at the Site

Current Site Conditions

A. Type of facilities on site (tanks, drums, landfill, etc.)

B. Amount of Wastes on site and location (include map)

C. Affected Media

1. Surface Water

2. Groundwater
3. Soils (to include information or recommendations for soil removal)
4. Air

Chronology of Events

Date each phase of work starts and finishes (this should include a brief description of each phase).

Scope of Work

A. Site Security Measures

1. Fence Installation (specifications) and Costs

2. Other Security Measures and Costs

B. Sampling and Classification of Wastes

1. Description of type and number of samples. (Include map of sample locations).

2. Laboratory Analysis/Chain of Custody Records

3. Waste Classification Requests

C. Disposal Method Selection

1. Description of disposal or treatment methods

2. Manifests and/or Receipts

3. Costs

Conclusions

A. Recommendations for additional security measures

B. Recommendations for waste minimization

C. Summary

The final report should include any photographs, copies of correspondence, laboratory reports, manifests, and any other disposal documentation.

Reimbursement of Local Governments for Emergency Response to Spills of Hazardous Substances

40 CFR §310.20. Eligibility for reimbursement.

(a) Any general purpose unit of local government may request reimbursement for temporary emergency measures if all requirements under §310.30 are met.

(b) States are not eligible for reimbursement for temporary emergency measures and no state may request reimbursement on its own behalf or on the behalf of political subdivisions within the state.

40 CFR §310.30. Requirements for requesting reimbursement.

(a) Response must have been initiated on or after October 21, 1987, the effective date of the interim final rule which governed the reimbursement process prior to the effective date of this part.

(b) The local government must inform EPA or the National Response Center (NRC) of the response as soon as possible, but not later than 24 hours after the start of a response, unless EPA or the USCG has been contacted via the NRC or other established response communication channel. EPA Regional offices and NRC telephone numbers are listed in Appendix I of this part.

(c) Requests for reimbursement must demonstrate that response actions are consistent with CERCLA, the NCP and, where applicable, the local comprehensive emergency response plan completed under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA).

(d) Requests for reimbursement must provide assurance that reimbursement for costs incurred for temporary emergency measures does not supplant local funds normally provided for response.

(e) Applicants for reimbursement must first present requests for payment of incurred costs to all known potentially responsible parties (PRPs) and permit at least 60 days for payment or for expression of intent to pay or willingness to negotiate prior to submitting a reimbursement request to the Agency. Local governments also must pursue all other sources of reimbursement (e.g., insurance, reimbursement from the State) before seeking reimbursement from EPA under this part.

(f) After October 17, 1988, the applicant's jurisdiction must be included in the comprehensive emergency response plan completed by the Local Emergency Planning Committee (LEPC) as required by section 303(a) of EPCRA. This requirement does not apply if the State Emergency Response Commission (SERC) has not established an LEPC responsible for the

emergency planning district(s) encompassing the applicant's geographic boundaries. (Approved by the Office of Management and Budget under control number 2050-0077)

40 CFR §310.40. Allowable and unallowable costs.

To be allowable, costs for which reimbursement is sought must be consistent with CERCLA and with Federal cost principles outlined in the OMB Circular A-87, *Cost Principles for State and Local Governments.* The local government may also seek assistance from the EPA Regional Office in determining which costs may be allowable. Final determination of the reasonableness of the costs for which reimbursement is sought will be made by EPA.

(a) Allowable cost. In general, allowable costs are those project costs are eligible, reasonable, necessary and allocable to the project. Costs allowable for reimbursement may include, but are not limited to:

(1) "Disposable materials and supplies" acquired, consumed, and expended specifically for the purpose of the response for which reimbursement is being requested (hereafter referred to as "the response");

(2) Compensation for unbudgeted wages of employees for the time and efforts devoted specifically to the response that are not otherwise provided for in the applicant's operating budget (e.g., overtime pay for permanent full-time and other than full-time employees);

(3) Rental or leasing of equipment used specifically for the response (e.g., protective equipment or clothing, scientific and technical equipment) (Note: reimbursement for these costs will not exceed the duration of the response);

(4) Replacement costs for equipment owned by the applicant that is contaminated beyond reuse or repair, if the applicant can demonstrate that the equipment was a total loss and that the loss occurred during the response (e.g., self-contained breathing apparatus irretrievably contaminated during the response);

(5) Decontamination of equipment contaminated during the response;

(6) Special technical services specifically required for the response (e.g., costs associated with the time and efforts of technical experts/specialists not otherwise provided for by the local government);

(7) Other special services specifically required for the response (e.g., utilities);

(8) Laboratory costs for purposes of analyzing samples taken during the response;

(9) Evacuation costs associated with the services, supplies, and equipment procured for a specific evacuation; and

(10) Containerization or packaging cost including transportation and disposal of hazardous wastes.

(b) Unallowable costs. Unallowable costs for reimbursement include, but are not limited to:

(1) Purchase or routine maintenance of equipment of a durable nature that is expected to have a period of service of one year or more after being put into use without material impairment of its physical condition, except as provided in paragraphs (a)(4) and (a)(5) of this section;

(2) Materials and supplies not purchased specifically for the response;

(3) Employee fringe benefits;

(4) Administrative costs for filing reimbursement applications;

(5) Employee out-of-pocket expenses normally provided for in the applicant's operating budget (e.g., meals, fuel);

(6) Legal expenses that may be incurred as a result of response activities, including efforts to recover costs for potentially responsible parties; and

(7) Medical expenses incurred as a result of response activities.

(c) Detailed cost documentation. Detailed cost documentation must be provided by the local government and ensure that costs incurred are substantiated and that cost documentation is adequate for an Agency audit. Documentation of response costs must include at a minimum.

(1) Specification of the temporary emergency measures for which reimbursement is requested;

(2) Specification of the local agency incurring the cost;

(3) Detailed breakdown of actual costs, by cost element such as overtime, equipment rental;

(4) Supporting documents such as invoices, sales receipts, rental or leasing agreements; and

(5) Generally accepted accounting practices consistently applied. (Approved by the Office of Management and Budget under control number 2050-077)

40 CFR §310.50. Filing procedures.

(a) Only one request for reimbursement will be accepted for each hazardous substance emergency requiring immediate response at the local level. When more than one local agency or government has participated in such a response, those agencies and governments must determine which single entity will submit the request on behalf of them all.

(b) A request for reimbursement must be submitted on EPA Form 9310-1, illustrated in Appendix II of this part, and must demonstrate that:

(1) Costs for which reimbursement is sought were incurred for temporary emergency measures taken by the local government to protect human health and the environment from releases or threatened releases of hazardous substances, pollutants or contaminants; temporary emergency measures may include security, source control, release containment, neutralization or other treatment methods, contaminated runoff control and similar activities mitigating immediate threats to human health and the environment;

(2) Reasonable effort has been made to recover costs from the responsible party and from any other available source and that such effort has been unsuccessful; and

(3) Response actions were not inconsistent with CERCLA, the NCP and, if applicable, the local emergency response plan required under Title III of SARA.

(c) Applicants must certify that:

(1) All costs are accurate and were incurred specifically for the response for which reimbursement is being requested:

(2) The local government complied with the requirement to inform EPA or the USCG of the response, as specified in §310.30(b);

(3) Reimbursement for costs incurred for response activities does not supplant local funds normally provided for response;

(4) The Potentially Responsible Party (PRP) cannot be identified or is unwilling or unable to pay; and

(5) If costs subsequently are recovered from responsible parties or other sources after the local government has received reimbursement from the Superfund, the local government agrees to return to EPA the reimbursement monies for which costs have been recovered.

(d) Reimbursement requests must be received by EPA within one year of the date of completion

of the response for which reimbursement is being requested. Late applications must include an explanation of the delay and will be considered on a case-by-case basis.

(e) A request for reimbursement must be signed by the authorized representative who is the highest ranking official of the local government or his or her delegate.

(f) Completed application and supporting data should be mailed to the LGR Project Officer, Emergency Response Division (5202-G), Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. (Approved by the Office of Management and Budget under control number 2050-0077)

40 CFR §310.60. Verification and reimbursement.

(a) Upon receipt of a reimbursement request, EPA will verify that it complies with all requirements. Where the request is incomplete or has significant defects, EPA will return the request to the applicant with written notification of its deficiencies.

(b) A request returned to the applicant for correction of deficiencies must be resubmitted to EPA within 60 days.

(c) For purposes of this part, a reimbursement request is deemed complete when EPA determines that the request complies fully with all requirements for reimbursement and with all filing procedures. When the request is complete, a notice will be provided to the applicant of EPA's receipt and acceptance for evaluation.

(d) If EPA determines that it cannot complete its evaluation of a request because the records, documents and other evidence were not maintained in accordance with generally accepted accounting principles and practices consistently applied, or were for any reason inadequate to demonstrate the reasonableness of the costs claimed, EPA may reject the request or make adjustments, if possible. Further consideration of such amounts will depend on the adequacy of subsequent documentation. Any additional information requested by EPA must be submitted within 60 days unless specifically extended by EPA. The failure of the applicant to provide in a timely manner the requested information without reasonable cause may be cause for denial of the reimbursement request.

(e) When the reimbursement request is completed, EPA will rank the request on the basis of financial burden. Financial burden will be based on the ratio of eligible response costs to the applicant locality's annual per capita income adjusted for population, with larger fractions representing greater burden than smaller fractions. Per capita income and population statistics used to calculate financial burden shall be those published by the U.S. Department of Commerce, Bureau of the Census, in *Current Population Reports, Local Population Estimates,* Series P-26, "1988 Population and 1987 Per Capita Income Estimates for Counties and Incorporated Places," Vols. 88-S-SC, 88-ENC-SC, 88-NE-SC, 88-W-SC, 88-WNC-SC, March 1990. This incorporation by reference was approved by the Director of the Federal

Register in accordance with 5 USC 552(a) and 1 CFR Part 51. Copies are available from the Bureau of the Census, Office of Public Affairs, Department of Commerce, Constitution Avenue, NE, Washington, DC 20230 (1-202-763-4040). Copies may be inspected at the U.S. Environmental Protection Agency 401 M Street, SW, Washington, DC, or at the Office of the Federal Register, 800 N. Capitol Street NW., 7th Floor, suite 700, Washington, DC. In ranking requests on the basis of financial burden, EPA also will give consideration to other relevant financial information supplied by the applicant. Once the request is ranked, EPA will:

(1) Reimburse the request or;

(2) Decline to reimburse the request; or

(3) Hold the request for reconsideration if funding for the current review period has been exceeded.

(f) Reimbursement will be made:

(1) Only for costs that are allowable, reasonable and necessary; and

(2) Only to the extent that the temporary emergency measures conformed to response criteria established by CERCLA, the NCP and the local emergency response plan, if applicable.

(g) The EPA reimbursement official will provide the requester with a written final decision. Payment of approved requests will be made according to §310.80.

(h) Requests that are not reimbursed after initial consideration remain open for reconsideration, at the EPA reimbursement official's discretion, for one year. EPA will notify the requester in writing if the request is held for later review. After that time, an unreimbursed request will no longer be considered and EPA will notify the requester in writing that the request has been denied.

40 CFR §310.70. Records retention.

An applicant receiving a reimbursement from the Superfund is required to maintain all cost documentation and any other records relating to the reimbursement request and to provide EPA with access to such records. If, after ten years from the date of the reimbursement from the Superfund, EPA has not initiated a cost recovery action, the applicant need retain the records no longer. The applicant must provide EPA with a 60 day notice on its intent to destroy the records. This notification will allow EPA the opportunity to take possession of these records before they are destroyed.

40 CFR §310.80. Payment of approved reimbursement requests.

A reimbursement from the Superfund can be paid only when Superfund monies are available. An approved

request in excess of Superfund appropriations available to EPA may be paid only when additional money is appropriated. As appropriations in the Superfund become available, reimbursements will be made in the order in which approved requests are ranked, according to relative financial burden.

))

Appendix I to Part 310.--EPA Regions and NRC Telephone Lines

EPA Regional Office	Tele-phone	States in Region
I--Boston	(617) 223-7265	ME, NH, VT, MA, RI, CT
II--New York	(908) 548-8730	NJ, NY, PR, VI
III--Philadelphia	(215) 597-9898	PA, DE, MD, DC, VA, WV
IV--Atlanta	(404) 347-4062	NC, SC, TN, MS, AL, GA, FL, KY
V--Chicago	(312) 353-2318	OH, IN, IL, WI, MN, MI
VI--Dallas	(214) 655-2222	AR, LA, TX, OK, NM
VII--Kansas City	(913) 236-3778	IA, MO, KS, NE
VIII--Denver	(303) 293-1788	CO, UT, WY, MT, ND, SD
IX--San Francisco	(415) 744-2000	AZ, CA, NV, AS, HI, GU, TT
X--Seattle	(206) 553-1263	ID, OR, WA, AK

National Response Center:
1-800-424-8802 (National--toll free)
202-267-2675 (Washington, DC)

Attachment 1.--Cost Element Codes and Comments

Code	Cost category	Cost element	Comments
PC.....	Personnel Compensation	PC1: Overtime--for services in excess of the local agency s standard work day or work week.	Compensation of overtime costs incurred specifically for a response will be considered only if overtime is not otherwise provided for in the applicant s operating budget.
		PC2: Experts and consultants--for services rendered on a per diem or fee basis or for services of an intermittent, advisory nature.	
TR.....	Transportation	TR1: Passenger vehicle rental--for transportation of persons during evacuation.	Passenger and nonpassenger vehicle rental costs will be considered for private vehicles not owned or operated by the applicant or other unit of local government.
		TR2: Nonpassenger vehicle rental--for transportation of equipment or supplies.	
RC.....	Utilities..	RC1: Utilities--for power, water, electricity and other services exclusive of transportation and communications.	Utility costs will be considered for private utilities not owned or operated by the applicant or other unit of local government.
OS.....	Other Contractual Services	OS1: Contracts for technical or scientific analysis--for tasks requiring specialized hazardous substance response expertise.	May include such items as specialized laboratory analyses and sampling.
		OS2: Decontamination services--for specialized cleaning or decontamination procedures and supplies to restore clothing, equipment or other serviceable gear to normal functioning.	
SM.....	Supplies and Materials	SM1: Commodities--for protective gear and clothing, cleanup tools and supplies and similar materials purchased specifically for,	May include such items as chemical foam to suppress a fire; food purchased specifically for an evacuation; air purifying

		and expended during, the response.	canisters for breathing appartus; disposable, protective suits and gloves; and sampling supplies.
EQ.....	Equipment	EQ1: Replacement--for durable equipment declared a total loss as a result of contamination during the response.	Equipment replacement costs will be considered if applicant can demonstrate total loss and proper disposal of contaminated equipment.
		EQ2: Rents--for use of equipment owned by others	Equipment rental costs will be considered for privately owned equipment not owned or operated by the applicant or other unit of local government.

Texas Water Code Section 26.177: Water Pollution Control Duties of Cities

Sec. 26.177. Water Pollution Control Duties of Cities

(a) Every city in this state having a population of 5,000 or more inhabitants shall, and any city of this state may, establish a water pollution control and abatement program for the city. The city shall employ or retain an adequate number of personnel on either a part-time or full-time basis as the needs and circumstances of the city may require, who by virtue of their training or experience are qualified to perform the water pollution control and abatement functions required to enable the city to carry out its duties and responsibilities under this section.

(b) The water pollution control and abatement program of a city shall encompass the entire city and may include areas within its extraterritorial jurisdiction which in the judgment of the city should be included to enable the city to achieve the objectives of the city for the area within its territorial jurisdiction. The city shall include in the program the services and functions which, in the judgment of the city or as may be reasonably required by the commission, will provide effective water pollution control and abatement for the city, including the following services and functions:

(1) the development and maintenance of an inventory of all significant waste discharges into or adjacent to the water within the city and, where the city so elects, within the extraterritorial jurisdiction of the city, without regard to whether or not the discharges are authorized by the commission;

(2) the regular monitoring of all significant waste discharges included in the inventory prepared pursuant to Subdivision (1) of this subsection;

(3) the collecting of samples and the conducting of periodic inspections and tests of the waste discharges being monitored to determine whether the discharges are being conducted in compliance with this chapter and any applicable permits, orders, or rules of the commission, and whether they should be covered by a permit from the commission;

(4) in cooperation with the commission, a procedure for obtaining compliance by the waste dischargers being monitored, including where necessary the use of legal enforcement proceedings;

(5) the development and execution of reasonable and realistic plans for controlling and abating pollution or potential pollution resulting from generalized discharges of waste which are not traceable to a specific source, such as storm sewer discharges and urban runoff from rainwater; and

(6) any additional services, functions, or other requirements as may be prescribed by commission rule.

(c) The water pollution control and abatement program required by Subsections (a) and (b) of this section must be submitted to the commission for review and approval. The commission may adopt rules providing the criteria for the establishment of those programs and the review and approval of those programs.

(d) Any person affected by any ruling, order, decision, ordinance, program, resolution, or other act of a city relating to water pollution control and abatement outside the corporate limits of such city adopted pursuant to this section or any other statutory authorization may appeal such action to the commission or district court. An appeal must be filed with the commission within 60 days of the enactment of the ruling, order, decision, ordinance, program, resolution, or act of the city. The issue on appeal is whether the action or program is invalid, arbitrary, unreasonable, inefficient, or ineffective in its attempt to control water quality. The commission or district court may overturn or modify the action of the city. If an appeal is taken from a commission ruling, the commission ruling shall be in effect for all purposes until final disposition is made by a court of competent jurisdiction so as not to delay any permit approvals.

(e) The commission shall adopt and assess reasonable and necessary fees adequate to recover the costs of the commission in administering this section.

Oil Transported and Produced in the Gulf of Mexico

This information is available in Subpart H of the *Federal Region VI Regional Contingency Plan.* Copies may be obtained by contacting EPA Region VI, Dallas; U.S. Coast Guard, 8th District, New Orleans; or the state RRT representatives—the GLO or the TNRCC. Phone numbers for these contacts are listed on pages 12-4 and 12-5 of this State Spill Contingency Plan.

Dispersants and Other Agents on the EPA List of Accepted Products

This information is available in Subpart H of the *Federal Region VI Regional Contingency Plan.* Copies may be obtained by contacting EPA Region VI, Dallas; U.S. Coast Guard, 8th District, New Orleans; or the State RRT representatives—the TNRCC or the GLO.

Texas Water Code Subchapter G: Hazardous Substances Spill Prevention and Control Act

Section 26.261 Short Title

This subchapter may be cited as the "Texas Hazardous Substances Spill Prevention and Control Act."

Section 26.262 Policy and Construction

It is the policy of this state to prevent the spill or discharge of hazardous substances into the waters in the state and to cause the removal of such spills and discharges without undue delay. This subchapter shall be construed to conform with Chapter 40, Natural Resources Code.

Section 26.263 Definitions

As used in this subchapter:

(1) ***Discharge or spill*** means an act or omission by which hazardous substances in harmful quantities are spilled, leaked, pumped, poured, emitted, entered, or dumped onto or into waters in this state or by which those substances are deposited where, unless controlled or removed, they may drain, seep, run, or otherwise enter water in this state. The term "discharge" or "spill" under this subchapter shall not include any discharge to which Subchapter C, D, E, F, or G, Chapter 40, Natural Resources Code, applies or any discharge which is authorized by a permit issued pursuant to federal law or any other law of this state or, with the exception of spills in coastal waters, regulated by the Railroad Commission of Texas.

(2) ***Account*** means the Texas Spill Response Account.

(3) ***Harmful quantity*** means that quantity of hazardous substance the discharge or spill of which is determined to be harmful to the environment or public health or welfare or may reasonably be anticipated to present an imminent and substantial danger to the public health or welfare by the administrator of the Environmental Protection Agency (EPA) pursuant to federal law and by the executive director [of the Texas Natural Resource Conservation Commission (TNRCC)].

(4) ***Hazardous substance*** means any substance designated as such by the administrator of the EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. Sec. 9601 et seq.), regulated pursuant to Section 311 of the federal Clean Water Act (33 U.S.C. Sec. 1321 et seq.), or designated by the TNRCC.

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

(6) ***Person responsible*** or ***responsible person*** means:

(a) the owner, operator, or demise charterer of a vessel from which a spill emanates;

(b) the owner or operator of a facility from which a spill emanates;

(c) any other person who causes, suffers, allows, or permits a spill or discharge.

Section 26.264 Administrative Provisions

(a) Except as provided in Chapter 40, Natural Resources Code, the TNRCC shall be the state's lead agency in spill response, shall conduct spill response for the state, and shall otherwise administer this subchapter. The TNRCC shall conduct spill response and cleanup for spills and discharges of hazardous substances other than oil in or threatening coastal waters according to the applicable provision of the state coastal discharge contingency plan promulgated by the commission under Section 40.053, Natural Resources Code. The TNRCC shall cooperate with other agencies, departments, and subdivisions of this state and of the United States in implementing this subchapter. In the event of a discharge or spill and after reasonable effort to obtain entry rights from each property owner involved, if any, the executive director [of the TNRCC] may enter affected property to carry out necessary spill response actions.

(b) The TNRCC may issue rules necessary and convenient to carry out the purposes of this subchapter.

(c) The executive director shall enforce the provisions of this subchapter and any rules given effect pursuant to Subsection (b) of this section.

(d) The executive director with the approval of the commission may contract with any public agency or private persons or other entity for the purpose of implementing this subchapter.

(e) The executive director shall solicit the assistance of and cooperate with local governments, the federal government, other agencies and departments of this state, and private persons and other entities to develop regional contingency plans for prevention and control of hazardous substance spills and discharges. The executive director may solicit the assistance of spill cleanup experts in determining appropriate measures to be taken in cleaning up a spill or discharge. The executive director shall develop a list of spill cleanup experts to be consulted, but shall not be limited to that list in seeking assistance. No person providing such assistance shall be held liable for any acts or omissions of the executive director which may result from soliciting such assistance.

(f) The TNRCC and the Texas Department of Transportation [TxDOT], in cooperation with the governor, the United States Coast Guard, and the Environmental Protection Agency [EPA], shall develop a contractual agreement whereby personnel, equipment, and materials in possession or under control of TxDOT may be diverted and utilized for spill and discharge cleanup as provided for in this subchapter. Under the agreement, the following conditions shall be met:

(1) the TNRCC and TxDOT shall develop and maintain written agreements and contracts on how such utilization will be effected, and designating agents for this purpose;

(2) personnel, equipment, and materials may be diverted only with the approval of the TNRCC and TxDOT, acting through their designated agents, or by action of the governor.

(3) all expenses and costs of acquisition of such equipment and materials or resulting from such cleanup activities shall be paid from the account, subject to reimbursement as provided in this subchapter; and

(4) subsequent to such activities, a full report of all expenditures and significant actions shall be prepared and submitted to the governor and the Legislative Budget Board, and shall be reviewed by the TNRCC.

(g) The executive director shall develop and revise from time to time written action and contractual plans with the designated on-scene coordinator [OSC] provided for by federal law.

(h) (1) In developing rules and plans under this subchapter and in engaging in cleanup activities under this subchapter, the TNRCC shall recognize the authority of the predesignated federal OSC to oversee, coordinate, and direct all private and public activities related to cleanup of discharges and spills that are undertaken pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. Sec. 9601 et seq.), the federal Clean Water Act (33 U.S.C. Sec. 1321 et seq.), and the national contingency plan authorized by the federal Clean Water Act (33 U.S.C. Sec. 1321 et seq.).

(2) Nothing in this subchapter shall require the state-designated OSC to defer to federal authority, unless preempted by federal law, if remedial action is unduly delayed or is ineffective.

(3) Nothing in this subchapter shall prevent the executive director from appointing a state-designated OSC and acting independently if no federal OSC is present or no action is being taken by an agency of the federal government.

(4) If an incident under this subchapter is eligible for federal funds, the TNRCC shall seek reimbursement from the designated agencies of the federal government for the reasonable costs incurred in cleanup operations, including but not limited to costs of personnel, equipment, the use of equipment, and supplies and restoration of land and aquatic resources held in trust or owned by the state.

(5) The TNRCC may enter into contracts or cooperative agreements under Section 104(c) and (d) of the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. Sec. 9601 et seq.) or Section 311 of the federal Clean Water Act (33 U.S.C. Sec. 1321 et seq.) to undertake authorized removal actions under this subchapter.

(i) The executive director shall after appropriate investigation prepare a report on state-funded cleanup

of a discharge or spill, and this report shall provide the following information:

(1) a description of incident, including location, amount, and characteristics of the material discharged or spilled and the prevailing weather conditions;

(2) the time and duration of discharge or spill and the time and method by which the discharge or spill was reported;

(3) the action taken, and by whom, to contain and clean up the discharge or spill;

(4) an assessment of both the short-term and long-term environmental impact of the accidental spill or discharge;

(5) the cost of cleanup operations incurred by the state;

(6) an evaluation of the principal causes of the discharge or spill and an assessment of how similar incidents might be prevented in the future; and

(7) a description of any legal action being taken to levy penalties or collect damages.

(j) This subchapter is cumulative of all other powers of the TNRCC.

(k) In the event that a discharge or spill presents or threatens to present an occurrence of disaster proportions, the governor shall utilize the authority granted him under the Texas Disaster Act of 1975 (Article 6889-7, Vernon's Texas Civil Statutes) to make available and bring to bear all resources of the state to prevent or lessen the impact of such a disaster.

(l) To the extent practicable and in lieu of the provisions of this subchapter, for facilities permitted under Chapter 361, Health and Safety Code, [the Solid Waste Disposal Act] to store, process, or dispose of hazardous waste, the TNRCC shall use procedures established under existing hazardous waste permits to abate or remove discharges or spills.

Section 26.265 Texas Spill Response Account

(a) The Texas Spill Response Account is an account in the General Revenue Fund. This account shall not exceed $5 million, exclusive of fines and penalties received under this subchapter.

(b) The account shall consist of money appropriated to it by the legislature and any fines, civil penalties, or other reimbursement to the account provided for under this subchapter.

(c) The commission may expend money in the account only for the purposes of:

(1) response to and investigation of spills and discharges;

(2) obtaining personnel, equipment, and supplies required in the cleanup of spills and discharges; and

(3) the assessment of damages to and restoration of land and aquatic resources held in trust or owned by the state.

(d) In addition to any cause of action under Chapter 40, Natural Resources Code, the state has cause of action against any responsible person for recovery of:

(1) expenditures out of the account; and

(2) costs that would have been incurred or paid by the responsible person if the responsible person had fully carried out the duties under Section 26.266 of this code, including:

(A) reasonable costs of reasonable and necessary scientific studies to determine impacts of the spill on the environment and natural resources and to determine the manner in which to respond to spill impacts;

(B) costs of attorney services;

(C) out-of-pocket costs associated with state agency action;

(D) reasonable costs incurred by the state in cleanup operations, including costs of personnel, equipment, and supplies and restoration of land and aquatic resources held in trust or owned by the state; and

(E) costs of remediating injuries proximately caused by reasonable cleanup activities.

(e) The state's right to recover under Subsection (d) of this section arises whether or not expenditures have actually been made out of the account.

(f) It is the intent of the legislature that the state attempt to recover the costs of cleanup according to the following priority:

(1) a responsible person; and

(2) the federal government to the extent that recovery from a responsible person is insufficient to pay the costs of cleanup.

(g) In a suit brought under Subsection (d) of this section, any responsible person who, after reasonable notice has been given by the executive director, has failed, after a reasonable period, to carry out his duties under Section 26.266 of this code is liable to the state for twice the costs incurred by the state under this subchapter in cleaning up the spill or discharge. Reasonable notice under this subsection must include a statement as to the basis for finding the person to whom notice is sent to be a

responsible person. Any responsible person held liable under this subsection or Subsection (d) of this section has the right to recover indemnity or contribution from any third party who caused, suffered, allowed, or permitted the spill or discharge. Liability arising under this subsection or Subsection (d) of this section does not affect any rights the responsible person has against a third party whose acts caused or contributed to the spill or discharge.

Section 26.266 Removal of Spill or Discharge

(a) Any owner, operator, demise charterer, or person in charge of a vessel or of any onshore facility or offshore facility shall immediately undertake all reasonable actions to abate and remove the discharge or spill subject to applicable federal and state requirements, and subject to the control of the federal OSC.

(b) In the event that the responsible person is unwilling or in the opinion of the executive director is unable to remove the discharge or spill, or the removal operation of the responsible person is inadequate, the TNRCC may undertake the removal of the discharge or spill and may retain agents for these purposes who shall operate under the direction of the executive director.

(c) Any discharge or spill of a hazardous substance, the source of which is unknown, occurring in or having a potentially harmful effect on waters in this state or in waters beyond the jurisdiction of this state and which may reasonably be expected to enter waters in this state may be removed by or under the direction of the executive director. Any expense involved in the removal of an unexplained discharge pursuant to this subsection shall be paid, on the commission's approval, from the account, subject to the authority of the TNRCC to seek reimbursement from an agency of the federal government, and from the responsible person if the identity of that person is discovered.

Section 26.267 Exemptions

(a) No person shall be held liable under this subchapter for any spill or discharge resulting from an act of God, act of war, third party negligence, or an act of government.

(b) Nothing in this subchapter shall in any way affect or limit the liability of any person to any other person or to the United States, or to this state.

(c) Notwithstanding any other provision of this subchapter, the state or the TNRCC shall utilize any and all procedures relating to releases or threatened releases of solid wastes contained in Chapter 361, Health and Safety Code [the Solid Waste Disposal Act] prior to utilizing the provisions of this subchapter with respect to such releases or threatened releases.

Section 26.268 Penalties

(a) This section is cumulative of all penalties and enforcement provisions provided elsewhere to the TNRCC, except that the TNRCC may not assess penalties under this section for violations of this subchapter which are also violations of any permit, rule, or order applicable to hazardous waste under

Chapter 361, Health and Safety Code, [the Solid Waste Disposal Act].

(b) Any person who violates any provision of this subchapter or of a TNRCC rule or order issued pursuant to this subchapter is subject to a civil penalty of not less than $100 nor more than $10,000 for each act of violation and for each day of violation. The day on which spill or discharge occurs and each day during which the spill or discharge has not been removed is a day of violation.

(c) Any person operating, in charge of, or responsible for a facility or vessel which causes a discharge or spill as defined in this subchapter and fails to report said spill or discharge upon discovery thereof shall be guilty of a Class A misdemeanor.

(d) Any person who knowingly falsifies records or reports concerning the prevention or cleanup of a discharge or spill as provided for in this subchapter is guilty of a felony of the third degree.

(e) The penalties authorized by this subchapter for discharges and spills shall not apply to any discharge or spill promptly reported and where reasonable precautions to minimize the spill's impact and reasonable efforts to clean it up were made by the responsible person in accordance with the rules and orders of the TNRCC, unless the TNRCC finds that the discharge or spill is the result of the negligence of the responsible person.

Texas Natural Resource Conservation Commission Rules

Chapter 327
Spill Prevention and Control
§§327.1-327.5

The new sections are adopted under the Texas Water Code, §5.103, which provides the TNRCC with the authority to adopt any regulation necessary to carry out its powers and duties under the Texas Water Code and other laws of this state, and the Texas Water Code, §26.264, which provides the commission with the authority to issue rules necessary and convenient to carry out the purposes of the Texas Water Code, Chapter 26, Subchapter G.

These sections are also adopted under the Texas Water Code, §26.039, which authorizes the commission to issue reasonable rules establishing safety and preventive measures concerning activities that are inherently or potentially capable of causing or resulting in the accidental discharge or spillage of waste or other substances and which pose serious or significant threats of pollution, and under the Texas Health and Safety Code, Solid Waste Disposal Act, §361.024, which authorizes the commission to adopt and promulgate rules consistent with the general intent and purposes of the Act and to establish minimum standards of operation for all aspects of the management and control of municipal hazardous waste and industrial solid waste.

Additional authority is provided by the Texas Water Code, §26.011, which provides that impending waste discharges are subject to reasonable rules or orders adopted by the commission in the public interest; the Texas Water Code, §26.023, which authorizes the commission to set water quality standards in the state; and the Texas Water Code, §26.041, which authorizes the commission to adopt rules to prevent a discharge of waste that is injurious to human health.

§327.1. Applicability.

(a) This chapter applies to discharges or spills that result in a release to the environment within the territorial limits of the state of Texas, including the coastal waters of this state.

(b) This chapter does not apply to:

(1) discharges or spills of oil that enter or threaten to enter coastal waters of the state. Except for spills of oil of 240 barrels or less for which the Railroad Commission of Texas is the on-scene coordinator, such discharges or spills are regulated by the Texas General Land Office under the Oil Spill Prevention and Response Act of 1991, the Texas Natural Resources Code, Chapter 40, Subchapters C, D, E, F, and G;

(2) spills or discharges from activities subject to the jurisdiction of the Railroad Commission of Texas under the Texas Water Code, §26.131;

(3) releases only to air;

(4) the lawful placement of waste or accidental discharge of material into a solid waste management unit registered or permitted under Chapter 335, Subchapter A of this title (relating to Industrial Solid Waste and Municipal Hazardous Waste in General);

(5) units and activities regulated under the authority of the Texas Water Code, Chapter 26, Subchapter I (relating to Underground and Aboveground Storage Tanks);

(6) the lawful application of materials, including but not limited to fertilizers and pesticides, to land or water;

(7) discharges that are authorized by a permit, order, or rule issued under federal law or any other law of the state of Texas; provided, however, that noncompliant discharges shall be reported under this chapter unless the permit, order, or another commission rule provides an applicable reporting requirement;

(8) discharges or spills that are continuous and stable in nature, and are reported to the United States Environmental Protection Agency (EPA) under 40 Code of Federal Regulations (CFR) §302.8; and,

(9) discharges or spills occuring during the normal course of rail transportation.

§327.2. Definitions. The following words and terms when used in this chapter shall have the following meanings, unless the context clearly indicates otherwise.

Agency on-scene coordinator—The official designated by the executive director to coordinate and direct agency responses, or to oversee private responses to discharges or spills.

Coastal waters—The definition of coastal waters as it appears in Title 31, Texas Administrative Code, §19.2 (relating to Definitions) of the Texas General Land Office rules.

Discharge or spill—An act or omission by which oil, hazardous substances, waste, or other substances are spilled, leaked, pumped, poured, emitted, entered, or dumped onto or into waters in the state of Texas or by which those substances are deposited where, unless controlled or removed, they may drain, seep, run, or otherwise enter water in the state of Texas.

Emergency response team—A unit of the agency that is responsible for the coordination of response to spills and discharges under the agency's jurisdiction.

Environment—Waters in the state, land surface or subsurface strata, for purposes of this chapter only.

Facility—Any structure or building, including contiguous land, or equipment, pipe or pipeline, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, aircraft, or any site or area where a discharge or spill has occurred or may occur.

Hazardous substance—Any substance designated as such by the administrator of the United States Environmental Protection Agency under the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9601–9675, regulated under the Clean Water Act, §311, 33 U.S.C. 1321, or designated by the commission.

Industrial solid waste—Solid waste, as defined in §335.1 of this title (relating to Definitions) resulting from or incidental to any process of industry or manufacturing, or mining, or agricultural operations, which may include hazardous waste as defined in §335.1.

Oil - Oil of any kind or in any form including but not limited to petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil does not include used oil, petroleum product, or oil designated as a hazardous substance in 40 CFR §302.4.

Other substances—Substances other than hazardous substances or oil that may be useful or valuable and therefore are not ordinarily considered to be waste, but that will cause pollution if discharged into water in the state.

Petroleum product—A petroleum substance obtained from distilling and processing crude oil that is liquid at standard conditions of temperature and pressure, and that is capable of being used as a fuel for the propulsion of a motor vehicle or aircraft, including but not necessarily limited to motor gasoline, gasohol, other alcohol blended fuels, aviation gasoline, kerosene, distillate fuel oil, and #1 and #2 diesel. The term does not include naphtha-type jet fuel, kerosene-type jet fuel, or a petroleum product destined for use in chemical manufacturing or feedstock of that manufacturing.

Petroleum storage tank (PST) exempted facilities—Petrochemical plants, petroleum refineries, electric generating facilities, transformers and other electrical equipment used during the transmission of electricity, bulk loading facilities, and pipelines that are exempted from the Aboveground Storage Tank (AST) program under §334.123(a)(9) and §334.123(b) of this title (relating to Statutory Exemptions for ASTs), and §334.124(a)(4) of this title (relating to Commission Exclusions for ASTs).

Pipeline—A pipeline is:

(1) an interstate pipeline facility, including gathering lines and any aboveground storage tank connected to such facility, if the pipeline facility is regulated under:

(A) the Natural Gas Pipeline Safety Act of 1968 (49 United States Code §1671, *et seq*.); or

(B) the Hazardous Liquid Pipeline Safety Act of 1979 (49 United States Code §2001, *et seq*.).

(2) an intrastate pipeline facility or any aboveground storage tank connected to such a facility, if the pipeline facility is regulated under one of the following state laws:

(A) the Natural Resources Code, Chapter 111;

(B) the Natural Resources Code, Chapter 117; or

(C) Texas Civil Statutes, Article 6053-1 and 6053-2.

Pollution—The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property or to public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

Responsible person—A person who is:

(A) the owner, operator, or demise charterer of a vessel from which a discharge or spill emanates; or

(B) the owner or operator of a facility from which a discharge or spill emanates; or

(C) any other person who causes, suffers, allows, or permits a discharge or spill.

Used oil—Oil that has been refined from crude oil, or synthetic oil, that as a result of use has been contaminated by physical or chemical impurities.

Vessel—Every description of watercraft, used or capable of being used as a means of transportation on the water.

Water or water in the state—Groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodies of surface waters, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.

§327.3. Notification Requirements.

(a) Reportable discharge or spill. A reportable discharge or spill is a discharge or spill of oil, hazardous substances, industrial solid waste, or other substances into the environment in a quantity equal to or greater than the reportable quantity listed in §327.4 of this title (relating to Reportable Quantities) in any 24-hour period.

(b) Initial notification. Upon the determination that a reportable discharge or spill has occurred,

the responsible person shall notify the agency as soon as possible but not later than 24 hours after the discovery of the spill or discharge.

(c) Method of notification. The responsible person shall notify the agency in any reasonable manner including by telephone, in person, or by any other method approved by the agency. In all cases, the initial notification shall provide, to the extent known, the information listed in subsection (d) of this section. Notice provided under this section satisfies the federal requirement to notify the State Emergency Response Commission in the state of Texas. The responsible person shall notify one of the following:

(1) the State Emergency Response Center at 1-800-832-8224;

(2) during normal business hours only, the regional office for the agency region in which the discharge or spill occurred; or

(3) the agency at the agency 24-hour spill reporting number

(d) Information required in initial notification. The initial notification shall provide, to the extent known, the information in the following list. Copies of spill reports prepared for other governmental agencies shall satisfy this requirement if they contain, or are supplemented to contain, all the information required by this subsection. The initial notification shall contain:

(1) the name, address and telephone number of the person making the telephone report;

(2) the date, time, and location of the spill or discharge;

(3) a specific description or identification of the oil, hazardous substances or other substances discharged or spilled;

(4) an estimate of the quantity discharged or spilled;

(5) the duration of the incident;

(6) the name of the surface water or a description of the waters in the state affected or threatened by the discharge or spill;

(7) the source of the discharge or spill;

(8) a description of the extent of actual or potential water pollution or harmful impacts to the environment and an identification of any environmentally sensitive areas or natural resources at risk;

(9) if different from paragraph (1) of this subsection, the names, addresses, and telephone numbers of the responsible person and the contact person at the location of the discharge or spill;

(10) a description of any actions that have been taken, are being taken, and will be taken to contain and respond to the discharge or spill;

(11) any known or anticipated health risks;

(12) the identity of any governmental representatives, including local authorities or third parties, responding to the discharge or spill; and

(13) any other information that may be significant to the response action.

(e) Update notification. The responsible person shall notify the agency as soon as possible whenever necessary to provide information that would trigger a change in the response to the spill or discharge.

(f) Correction of records. Notifying the agency that a reportable discharge or spill has occurred shall not be construed as an admission that pollution has occurred. Furthermore, if the responsible person determines, after notification, that a reportable discharge or spill did not occur, the responsible person may send a letter to the agency documenting that determination. If the executive director agrees with that determination, the executive director will note the determination in commission records. If the executive director disagrees with that determination, the executive director will notify the responsible person within 30 days.

(g) Notification of local governmental authorities. If the discharge or spill creates a potential for off-site human exposure, the responsible person shall immediately notify and cooperate with local emergency authorities (fire department, fire marshall, law enforcement authority, health authority, or Local Emergency Planning Committee (LEPC), as appropriate). The responsible party will cooperate with the local emergency authority in providing support to implement appropriate notification and response actions. The local emergency authority, as necessary, will implement its emergency management plan, which may include notifying and evacuating affected persons. In the absence of a local emergency authority, the responsible person shall take reasonable measures to notify potentially affected persons of the spill or discharge and the potential exposure.

(h) Notification to property owner or residents. As soon as possible, but no later than two weeks after discovery of the spill or discharge, the responsible person shall reasonably attempt to notify the owner (if identifiable) or occupant of the property upon which the discharge or spill occurred as well as the occupants of any property that the responsible person reasonably believes is adversely affected.

(i) Additional notification required.

(1) Except as noted in paragraph (2), complying with the notification requirements set forth in this section does not relieve, satisfy, or fulfill any other notification requirements imposed by permit or other local, state, or federal law.

(2) Notice provided under this section satisfies the federal requirement to notify the State Emergency Response Commission in the state of Texas.

(j) Alternative notification plans.

(1) Responsible persons in charge of activities and facilities may submit and implement an alternative notification plan. This alternative notification plan shall comply with the Texas Water Code, §26.039. Responsible persons shall obtain the agency's written approval before implementing any alternative notification plan.

(2) Upon approval of the agency regional manager, responsible persons may provide the initial notification by facsimile to the regional office during normal business hours.

§327.4. Reportable Quantities.

(a) Hazardous substances. The reportable quantities for hazardous substances shall be:
(1) for spills or discharges onto land—the quantity designated as the Final Reportable Quantity (RQ) in Table 302.4 in 40 CFR §302.4; or

(2) for spills or discharges into waters in the state—the quantity designated as the Final RQ in Table 302.4 in 40 CFR §302.4, except where the Final RQ is greater than 100 pounds in which case the RQ shall be 100 pounds.

(b) Oil, petroleum product, and used oil.

(1) The RQ for crude oil and oil other than that defined as petroleum product or used oil shall be:

(A) for spills or discharges onto land—210 gallons (five barrels); or

(B) for spills or discharges directly into water in the state—quantity sufficient to create a sheen.

(2) The RQ for petroleum product and used oil shall be:

(A) except as noted in subparagraph (B), for spills or discharges onto land—25 gallons;

(B) for spills or discharges to land from PST exempted facilities—210 gallons (five barrels); or

(C) for spills or discharges directly into water in the state—quantity sufficient to create a sheen.

(c) Industrial solid waste or other substances. The RQ for spills or discharges into water in the state shall be 100 pounds.

§327.5. Actions Required.

(a) The responsible person shall immediately abate and contain the spill or discharge and cooperate fully with the executive director and the local incident command system. The responsible person shall also begin reasonable response actions which may include, but are not limited to, the following actions:

(1) arrival of the responsible person or response personnel hired by the responsible person at the site of the discharge or spill;

(2) initiating efforts to stop the discharge or spill;

(3) minimizing the impact to the public health and the environment;

(4) neutralizing the effects of the incident;

(5) removing the discharged or spilled substances; and

(6) managing the wastes.

(b) Upon request of the local government responders or the executive director, the responsible person shall provide a verbal or written description, or both, of the planned response actions and all actions taken before the local governmental responders or the executive director arrive. When the agency on-scene coordinator requests this information, it is subject to possible additional response action requirements by the executive director. The information will serve as a basis for the executive director to determine the need for:

(1) further response actions by the responsible person;

(2) initiating state funded actions for which the responsible person may be held liable to the maximum extent allowed by law; and

(3) subsequent reports on the response actions.

(c) Except for discharges or spills occurring during the normal course of transportation about

which carriers are required to file a written report with the U.S. Department of Transportation under 49 CFR §171.16, the responsible person shall submit written information, such as a letter, describing the details of the discharge or spill and supporting the adequacy of the response action, to the appropriate agency regional manager within 30 working days of the discovery of the reportable discharge or spill. The regional manager has the discretion to extend the deadline. The documentation shall contain one of the following items:

(1) A statement that the discharge or spill response action has been completed and a description of how the response action was conducted. The statement shall include the initial report information required by §327.3(c) of this title (relating to Notification Requirements). The executive director may request additional information. Appropriate response actions at any time following the discharge or spill include use of the Risk Reduction Rules in §335.8 of this title (relating to Closure) or other appropriate agency risk-based corrective action programs.

(2) A request for an extension of time to complete the response action, along with the reasons for the request. The request shall also include a projected work schedule outlining the time required to complete the response action. The executive director may grant an extension up to six months from the date the spill or discharge was reported. Unless otherwise notified by the appropriate regional manager or the Emergency Response Team, the responsible person shall proceed according to the terms of the projected work schedule.

(3) A statement that the discharge or spill response action has not been completed nor is it expected to be completed within the maximum allowable six month extension. The statement shall explain why completion of the response action is not feasible and include a projected work schedule outlining the remaining tasks to complete the response action. This information will also serve as notification that the response actions to the discharge or spill will be conducted under the Risk Reduction Rules in §335.8 of this title (relating to Closure) or other commission risk-based corrective action rules, and shall indicate the appropriate risk-based corrective action program.

Texas Natural Resources Code Chapter 40: Oil Spill Prevention and Response Act of 1991

Sec. 40.001. Short Title.

This chapter may be cited as the "Oil Spill Prevention and Response Act of 1991."

Sec. 40.002. Policy.

(a) The legislature finds and declares that the preservation of the Texas coast is a matter of the highest urgency and priority. It is the policy of this state to keep its coastal waters, rivers, lakes, estuaries, marshes, tidal flats, beaches, and public lands as pristine as possible, taking into account multiple use accommodations necessary to provide the broadest possible promotion of public and private interests. Spills, discharges, and escapes of crude oil, petroleum, and other such substances resulting from their handling, storage, and transportation, particularly by vessel, endanger the coastal environment of the state, public and private property on the coast, and the well-being of those deriving their livelihood from marine-related activity in coastal waters. The hazards posed by the handling, storage, and transportation of these substances in the coastal waters are contrary to the paramount interests of the state. These state interests outweigh the economic burdens imposed under this chapter.

(b) The legislature finds and declares that the natural resources of the state and particularly those in the coastal waters of the state offer significant benefits to the citizens of Texas. These natural resources are important for their existence and their recreational, aesthetic, and commercial value. It is the policy of the state to protect these natural resources and to restore, rehabilitate, replace, and/or acquire the equivalent of these natural resources with all deliberate speed when they have been damaged. The legislature finds and declares that it is difficult to assess the value of these natural resources and to quantify injury to natural resources at a reasonable cost. The procedures and protocols utilized by the trustees must therefore consider the unique characteristics of each spill incident and the location of the natural resources affected.

It is the intent of the legislature that natural resource damage assessment methodologies be developed for the purpose of reasonably valuing the natural resources of the state of Texas in the event of an oil spill and that the state recover monetary damages or have actions commenced by the spiller as early as possible to expedite the restoration, rehabilitation, and/or replacement of injured natural resources.

(c) The legislature intends by this chapter to exercise the police power of the state to protect its coastal waters and adjacent shorelines by conferring upon the Commissioner of the General Land Office the power to:

(1) prevent spills and discharges of oil by requiring and monitoring preventive measures and response planning;

(2) provide for prompt response to abate and contain spills and discharges of oil and ensure the removal and cleanup of pollution from such spills and discharges;

(3) provide for development of a state coastal discharge contingency plan through planning and coordination with the Texas Natural Resource Conservation Commission to protect coastal waters from all types of spills and discharges; and

(4) administer a fund to provide for funding these activities and to guarantee the prompt payment of certain reasonable claims resulting from spills and discharges of oil.

(d) The legislature declares that it is the intent of this chapter to support and complement the Oil Pollution Act of 1990 (Pub. L. 101-380) and other federal law, specifically those provisions relating to the national contingency plan for cleanup of oil and hazardous substance spills and discharges, including provisions relating to the responsibilities of state agencies designated as natural resources trustees. The legislature intends this chapter to be interpreted and implemented in a manner consistent with federal law.

Sec. 40.003. Definitions.

In this chapter:

(1) "Barrel" means 42 United States gallons at 60 degrees Fahrenheit.

(2) "Coastal waters" means the waters and bed of the Gulf of Mexico within the jurisdiction of the state of Texas, including the arms of the Gulf of Mexico subject to tidal influence, and any other waters contiguous thereto that are navigable by vessels with a capacity to carry 10,000 gallons or more of oil as fuel or cargo.

(3) "Commissioner" means the commissioner of the General Land Office.

(4) "Comprehensive assessment method" means a method including sampling, modeling, and other appropriate scientific procedures to make a reasonable and rational determination of injury to natural resources resulting from an unauthorized discharge of oil.

(5) "Comptroller" means the comptroller of public accounts.

(6) "Crude oil" means any naturally occurring liquid hydrocarbon at atmospheric temperature and pressure coming from the earth, including condensate.

(7)(A) "Damages" means compensation:

(i) to an owner, lessee, or trustee for any direct, documented loss of, injury to, or loss of use of any real or personal property or natural resources injured by an unauthorized discharge of oil;

(ii) to a state or local government for any direct, documented net loss of taxes or net costs of increased entitlements or public services; or

(iii) to persons, including but not limited to holders of an oyster lease or permit; persons owning, operating, or employed on commercial fishing, oystering, crabbing, or shrimping vessels; persons owning, operating, or employed by seafood processing concerns; and others similarly economically reliant on the use or acquisition of natural resources for any direct, documented loss of income, profits, or earning capacity from the inability of the claimant to use or acquire natural resources arising solely from injury to the natural resources from an unauthorized discharge of oil.

(B) With respect to natural resources, "damages" includes the cost to assess, restore, rehabilitate, or replace injured natural resources, or to mitigate further injury, and their diminution in value after such restoration, rehabilitation, replacement, or mitigation.

(8) "Discharge of oil" means an intentional or unintentional act or omission by which harmful quantities of oil are spilled, leaked, pumped, poured, emitted, or dumped into or on coastal waters or at a place adjacent to coastal waters where, unless controlled or removed, an imminent threat of pollution to coastal waters exists.

(9) "Discharge cleanup organization" means any group or cooperative, incorporated or unincorporated, of owners or operators of vessels or terminal facilities and any other persons who may elect to join, organized for the purpose of abating, containing, removing, or cleaning up pollution from discharges of oil or rescuing and rehabilitating wildlife or other natural resources through cooperative efforts and shared equipment, personnel, or facilities. Any third-party cleanup contractor, industry cooperative, volunteer organization, or local government shall be recognized as a discharge cleanup organization, provided the commissioner or the United States properly certifies or classifies the organization.

(10) "Federal fund" means the federal Oil Spill Liability Trust Fund.

(11) "Fund" means the coastal protection fund.

(12) "Harmful quantity" means that quantity of oil the discharge of which is determined by the commissioner to be harmful to the environment or public health or welfare or may reasonably be anticipated to present an imminent and substantial danger to the public health or welfare.

(13) "Hazardous substance" means any substance, except oil, designated as hazardous by the Environmental Protection Agency pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. Sec. 9601 *et seq.*) and designated by the Texas Natural Resource Conservation Commission.

(14) "Marine terminal" means any terminal facility used for transferring crude oil to or from vessels.

(15) "National contingency plan" means the plan prepared and published, as revised from time to time, under the Federal Water Pollution Control Act (33 U.S.C. Sec. 1321 *et seq.*) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. Sec. 9601 *et seq.*).

(16) "Natural resources" means all land, fish, shellfish, fowl, wildlife, biota, vegetation, air, water, and other similar resources owned, managed, held in trust, regulated, or otherwise controlled by the state.

(17) "Oil" means oil of any kind or in any form, including but not limited to crude oil, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil, but does not include petroleum, including crude oil or any fraction thereof, which is specifically listed or designated as a hazardous substance under Subparagraphs (A) through (F) of Section 01(14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. Sec. 9601 *et seq.*) and which is subject to the provisions of that Act, and which is so designated by the Texas Natural Resource Conservation Commission.

(18) "Owner" or "operator" means:

(A) any person owning, operating, or chartering by demise a vessel; or

(B) any person owning a terminal facility or a person operating a terminal facility by lease, contract, or other form of agreement.

(19) "Person in charge" means the person on the scene who is directly responsible for a terminal facility or vessel when a discharge of oil occurs or a particular duty arises under this chapter.

(20) "Person responsible" or "responsible person" means:

(A) the owner or operator of a vessel or terminal facility from which an unauthorized discharge of oil emanates or threatens to emanate;

(B) in the case of an abandoned vessel or terminal facility, the person who would have been the responsible person immediately prior to the abandonment; and

(C) any other person who causes, allows, or permits an unauthorized discharge of oil or threatened unauthorized discharge of oil.

(21) "Pollution" means the presence of harmful quantities of oil from an unauthorized discharge in coastal waters or in or on adjacent waters, shorelines, estuaries, tidal flats, beaches, or marshes.

(22) "Response costs" means:

(A) with respect to an actual or threatened discharge of oil, all costs incurred in an attempt to prevent, abate, contain, and remove pollution from the discharge, including costs of removing vessels or structures under this chapter, and costs of any reasonable measures to prevent or limit damage to the public health, safety, or welfare, public or private property, or natural resources; or

(B) with respect to an actual or threatened discharge of a hazardous substance, only costs incurred to supplement the response operations of the Texas Natural Resource Conservation Commission.

(23) "Terminal facility" or "facility" means any waterfront or offshore pipeline, structure, equipment, or device used for the purposes of drilling for, pumping, storing, handling, or transferring oil and operating where a discharge of oil from the facility could threaten coastal waters, including but not limited to any such facility owned or operated by a public utility or a governmental or quasi-governmental body, but does not include any temporary storage facilities used only in connection with the containment and cleanup of unauthorized discharges of oil.

(24) "Trained personnel" means one or more persons who have satisfactorily completed an appropriate course of instruction developed under Section 40.302 of this code or all other training requirements as determined by the commissioner.

(25) "Trustee" means a natural resources trustee of the state as designated by the governor under federal law.

(26) "Unauthorized discharge of oil" means any discharge of oil, or any discharge of oil emanating from a vessel into waters adjoining and accessible from coastal waters, that is not authorized by a federal or state permit.

(27) "Unauthorized discharge of hazardous substances" means a spill or discharge subject to Subchapter G, Chapter 26, Water Code.

(28) "Vessel" includes every description of watercraft or other contrivance used or capable of being used as a means of transportation on water, whether self-propelled or otherwise, including barges.

Sec. 40.004. Administration of Oil Spill Response and Cleanup.

(a) The General Land Office, under the direction and control of the commissioner, is the state's lead agency for response to actual or threatened unauthorized discharges of oil and for cleanup of pollution from unauthorized discharges of oil. The commissioner shall administer this chapter and direct all state discharge response and cleanup operations resulting from unauthorized discharges of oil.

(b) All persons and all other officers, agencies, and subdivisions of the state shall carry out response and cleanup operations related to unauthorized discharges of oil subject to the authority granted to the commissioner under this chapter.

Sec. 40.005. Administration of Hazardous Substance Spill Response and Cleanup.

The General Land Office, under the direction and control of the commissioner, is the state's lead agency for initiating response to all actual or threatened unauthorized discharges of oil. In the event of an unauthorized discharge of a hazardous substance, nothing in this chapter shall preclude the Texas Natural Resource Conservation Commission from at the earliest time practicable assuming response and cleanup duties pursuant to Subchapter G, Chapter 26, Water Code, and the state coastal discharge contingency plan.

Sec. 40.006. Interagency Council.

The commissioner shall from time to time convene a cooperative council comprising the Texas Department of Health, the division of emergency management in the office of the governor, the Parks and Wildlife Department, the Texas Natural Resource Conservation Commission, the Railroad Commission of Texas, the Texas Higher Education Coordinating Board, and any other state agency authorized to participate in unauthorized discharge response operations under the state coastal discharge contingency plan. The commissioner shall serve as chairperson. The council shall consider matters relating to coordination of state prevention, response, and cleanup operations related to unauthorized discharges of oil and hazardous substances.

Sec. 40.007. General Powers and Duties.

(a) The commissioner may promulgate rules necessary and convenient to the administration of this chapter.

(b) The commissioner shall by rule establish procedures under Chapter 2001, Government Code for all hearings required by this chapter. The commissioner may administer oaths, receive evidence, issue subpoenas to compel attendance of witnesses and production of evidence related to hearings, and make findings of fact and decisions with respect to administering this chapter.

(c) The commissioner may contract with any public agency or private person or other entity, including entering into cooperative agreements with the federal government, acquire and dispose of real or personal property, delegate responsibility for implementing the requirements of this chapter, and perform any other act within or without the boundaries of this state necessary to administer this chapter.

(d) If the commissioner finds it necessary to enter property to conduct a vessel or terminal facility audit, inspection, or drill authorized under this chapter or to respond to an actual or threatened unauthorized discharge of oil, the commissioner may enter the property after making a reasonable effort to obtain consent to enter the property.

Sec. 40.008. Railroad Commission Authority.

The Railroad Commission of Texas shall continue to exercise its authority pursuant to Section 91.101 of this code and Section 26.131, Water Code, to issue and enforce rules, permits, and orders to prevent pollution of surface and subsurface waters in the state by activities associated with the exploration, development, or production of oil, gas, or geothermal resources, including the transportation of oil or gas by pipeline. Nothing in this chapter preempts the jurisdiction of the Railroad Commission of Texas under Article 6053-1, Revised Statutes, and Chapter 117, Natural Resources Code, over pipeline transportation of gas and hazardous liquids and over gas and hazardous liquid pipeline facilities.

SUBCHAPTER B. DISCHARGE RESPONSE

Sec. 40.051. Notification.

On notification of an actual or threatened unauthorized discharge of oil, the commissioner shall act to assess the discharge and prevent, abate, or contain any pollution from the discharge.

Sec. 40.052. Hazardous Substances Discharges.

If the unauthorized discharge involves predominantly a hazardous substance, the Texas Natural Resource Conservation Commission shall carry out responsibility for abatement, containment, removal, and cleanup of the hazardous substances discharged, pursuant to Subchapter G, Chapter 26, Water Code, and to the state coastal discharge contingency plan.

Sec. 40.053. State Coastal Discharge Contingency Plan.

(a) The commissioner shall promulgate a state coastal discharge contingency plan of response for actual or threatened unauthorized discharges of oil and cleanup of pollution from such discharges. In addition, the Texas Natural Resource Conservation Commission, in cooperation with the commissioner, shall promulgate provisions of the plan relating to unauthorized discharges of hazardous substances, and the Parks and Wildlife Department, in cooperation with the commissioner, shall promulgate provisions of the plan relating to the rescue and rehabilitation of aquatic life and wildlife and the habitats on which they depend. The commissioner shall cooperate and consult with the Railroad Commission of Texas in promulgating provisions of the plan relating to the exercise of authority by the Railroad Commission of Texas pursuant to Subsection (b) of this section to direct an owner or operator to abate or prevent pollution as a result of an unauthorized discharge of oil. The plan shall be promulgated in a coordinate manner and adopted in an integrated chapter of the Texas Administrative Code.

(b) In promulgating the plan, the commissioner and the Texas Natural Resource Conservation Commission shall provide for clear designation of responsibilities and avoid unnecessary duplication and expense. The plan shall provide that, in the event of an unauthorized discharge of 240 barrels or less of oil from an activity associated with the exploration, development, or production of oil or gas,

including the transportation of oil or gas by pipeline, the Railroad Commission of Texas shall act as state-designated on-scene coordinator for abatement, containment, removal, and cleanup of the discharge pursuant to Section 91.101 of this code, Section 26.131, Water Code, and this chapter.

(c) In promulgating the plan, the commissioner shall develop response capabilities on a regional basis for all coastal waters, incorporating to the greatest extent practicable existing plans prepared for particular coastal areas.

(d) The commissioner shall establish regional response committees or utilize the are committees established by federal law to advise and provide input in the development of site-specific discharge contingency response plans.

(1) Membership on these committees shall include broad-based representation from local governments, industry, resource agencies, and citizens groups and shall include staff from the General Land Office.

(2) The committees shall develop regional response recommendations and provide evaluation of response and recommendations for improvement to the commissioner following an actual or threatened unauthorized discharge.

(e) The state coastal discharge contingency plan shall include:

(1) designation of environmental and other priority zones to determine the sequence and methods of response and cleanup and a procedure for incident-specific response recommendations;

(2) evaluation of industry and federal government response capabilities; and

(3) temporary storage locations for removed oil or hazardous substances.

(f) In addition to the regional components, the plan shall also include:

(1) detailed emergency operating procedures for initiating actions in response to unauthorized discharges;

(2) persons constituting a response command structure and state response team;

(3) an inventory of public and private equipment and its location and a list of available sources of supplies necessary for response;

(4) a table of organization with the names, addresses, and telephone numbers of all persons and agencies responsible for implementing every phase of the plan and provisions for notifying such persons and agencies in the event of an unauthorized discharge;

(5) practice drills for the response command structure and the state response team;

(6) establishment of a single state hotline for reporting incidents that will satisfy all state notification requirements under this chapter and Subchapter G, Chapter 26, Water Code;

(7) provisions for notifying the Texas Natural Resource Conservation Commission in the event of an unauthorized discharge of a hazardous substance under the state coastal discharge contingency plan;

(8) wildlife recovery team and volunteer coordination and training;

(9) use of both proven and innovative response methods and technologies;

(10) the circumstances under which an unauthorized discharge has reached catastrophic proportions and may be declared to be a state of disaster under applicable law;

(11) the circumstances under which the unauthorized discharge may be declared to be abated and pollution may be declared to be satisfactorily removed;

(12) designation of environmental and other priority zones to determine the sequence and methods of response and cleanup;

(13) procedures for disposal of removed oil or hazardous substances;

(14) procedures for assessment of natural resources damages and plans for mitigation of damage to and restoration, rehabilitation, or replacement of damaged natural resources, including to the greatest extent practicable recommendations of any regional response committee for the affected area; and

(15) any other matter necessary or appropriate to carry out response activities.

(g) The plan shall be filed with all state agencies participating in response operations and federal officials responsible for federal discharge response within coastal waters.

SUBCHAPTER C. OIL SPILL PREVENTION AND RESPONSE

Sec. 40.101. Notification and Response.

(a) Any person responsible for an unauthorized discharge of oil or the person in charge of any vessel or a terminal facility from or at which an unauthorized discharge of oil has occurred, as soon as that person has knowledge of the discharge, shall:

(1) immediately notify the commissioner of the discharge; and

(2) undertake all reasonable actions to abate, contain, and remove pollution from the discharge.

(b) If the persons responsible or in charge are unknown or appear to the commissioner to be unwilling or unable to abate, contain, and remove pollution from an unauthorized discharge of oil in an adequate manner, the commissioner may abate, contain, and remove pollution from the discharge and may contract with and appoint agents who shall operate under the direction of the commissioner.

(c) In order to prevent duplication of effort among state agencies, the commissioner shall utilize the expertise of the Texas Natural Resource Conservation Commission on technical and scientific actions, including but not limited to:

(1) taking samples in the spill area;

(2) monitoring meteorological conditions that may affect spill response operations; and

(3) regulating disposal of spilled material.

Sec. 40.102. Response Coordination.

(a) In responding to actual or threatened unauthorized discharges of oil, the commissioner may appoint a state-designated on-scene coordinator to act in the commissioner's place.

(b) If the unauthorized discharge of oil is subject to the national contingency plan, in responding to the discharge the commissioner or the state-designated on-scene coordinator shall to the greatest extent practicable act in accordance with the national contingency plan and cooperate with the federal on-scene coordinator or other federal agency or official exercising authority under the national contingency plan.

(c) The commissioner or the state-designated on-scene coordinator may act independently to the extent no federal on-scene coordinator or authorized agency or official of the federal government has assumed federal authority to oversee, coordinate, and direct response operations.

(d) The state or federal on-scene coordinator may authorize the decanting of recovered water during containment, cleanup, and response activities resulting from an unauthorized discharge of oil.

Sec. 40.103. Assistance and Compensation.

(a) Subject to the commissioner's authority under this chapter, any person or discharge cleanup organization may assist in abating, containing, or removing pollution from any unauthorized discharge of oil. This chapter does not affect any rights not inconsistent with this chapter that any such person or organization may have against any third party whose acts or omissions caused or contributed to the unauthorized discharge.

(b) Any person or discharge cleanup organization that renders assistance in abating, containing, or removing pollution from any unauthorized discharge of oil may receive compensation from the fund for response costs, provided the commissioner approves compensation prior to the assistance being rendered. Prior approval for compensation may be provided for in the state coastal discharge contingency plan. The commissioner, on petition and for good cause shown, may waive the prior approval prerequisite.

Sec. 40.104. Qualified Immunity for Response Actions.

(a) No action taken by any person or discharge cleanup organization to abate, contain, or remove pollution from an unauthorized discharge of oil, whether such action is taken voluntarily, or pursuant to the national contingency plan or state coastal discharge contingency plan, or pursuant to a discharge response plan required under this chapter, or pursuant to the request of an authorized federal or state official, or pursuant to the request of the responsible person, shall be construed as an admission of responsibility or liability for the discharge.

(b) No person or discharge cleanup organization that voluntarily, or pursuant to the national contingency plan or the state coastal discharge contingency plan, or pursuant to any discharge response plan required under this chapter, or pursuant to the request of an authorized federal or state official, or pursuant to the request of the responsible person, renders assistance or advice in abating, containing, or removing pollution from an unauthorized discharge of oil is liable for response costs, damages, or civil penalties resulting from acts or omissions committed in rendering such assistance or advice, except for acts or omissions of gross negligence or wilful misconduct.

Sec. 40.105. Equipment and Personnel.

The commissioner may establish and maintain equipment and trained personnel at places the commissioner determines may be necessary to facilitate response operations.

Sec. 40.106. Refusal to Cooperate.

(a) If a responsible person, or a person or discharge cleanup organization under the control of a responsible person, participating in operations to abate, contain, and remove pollution from any unauthorized discharge of oil, reasonably believes that any directions or orders given by the commissioner or the commissioner's designee under this chapter will unreasonably endanger public safety or natural resources or conflict with directions or orders of the federal on-scene coordinator, the party may refuse to comply with the direction or orders.

(b) The party shall state at the time of refusal the reason or reasons why the party refuses to comply. The party shall give the commissioner written notice of the reason or the reasons for the refusal within 48 hours of the refusal.

Sec. 40.107. Natural Resources Damages.

(a) (1) In any action to recover natural resources damages, the amount of damages established by the commissioner in conjunction with the trustees, according to the procedures and plans contained in the state coastal discharge contingency plan, shall create a rebuttable presumption of the amount of such damages.

(2) The commissioner shall represent the consensus position of the trustees whenever a collective decision or agreement is required by this section.

(3) Whenever trustees cannot achieve a consensus, the commissioner may invoke mediation to settle any disputed matter related to this section. The mediation shall be immediately commenced and shall be concluded within 10 days of its commencement. The trustees shall abide by the consensus achieved through mediation.

(4) The trustees shall enter into a memorandum of agreement which describes the mediation process of Subdivision (3) of this subsection.

(b) The commissioner may establish the rebuttable presumption by submitting to the court written report of the amounts computed or expended according to the state plan. The written report shall be admissible in evidence.

(c) (1) The commissioner, in conjunction with the trustees, shall develop an inventory that identifies and catalogs the physical locations, the seasonal variations in location, and the current condition of natural resources; provides for data collection related to coastal processes; and identifies the recreational and commercial use areas that are most likely to suffer injury from an unauthorized discharge of oil. The inventory shall be completed by September 1, 1995, and shall be incorporated into the state coastal discharge contingency plan after public review and comment.

(2) The physical locations surveyed for the inventory of natural resources shall include, at a minimum, the following priority areas:

(A) the Galveston Bay system and the Houston Ship Channel;

(B) the Corpus Christi Bay system;

(C) the lower Laguna Madre;

(D) Sabine Lake; and

(E) federal and state wildlife refuge areas.

(3) The current condition of selected natural resources inventoried and cataloged shall be determined by, at a minimum, a baseline sampling and analysis of current levels of constituent substances selected after considering the types of oil most frequently transported through and stored near coastal waters.

(4) The commissioner shall adopt administrative procedures and protocols for the assessment of natural resource damages from an unauthorized discharge of oil. As developed through negotiated rulemaking with the trustees and other interested parties, the procedures and protocols shall require the trustees to assess natural resource damages by considering the unique characteristics of the spill incident and the location of the natural resources affected. These procedures and protocols shall be adopted by rule, by the trustee agencies after negotiation, notice, and public comment, by June 1, 1994, and shall be incorporated into the state coastal discharge contingency plan.

(5) The administrative procedures and protocols shall include provisions which address:

(A) notification by the commissioner to all trustees in the event of an unauthorized discharge of oil;

(B) coordination with and among trustees, spill response agencies, potentially responsible parties, experts in science and economics, and the public; and

(C) participation in all stages of the assessment process by the potentially responsible party, as consistent with trustee responsibilities.

(6) The administrative procedures and protocols shall also require the trustees to:

(A) assist the on-scene coordinator, during spill response activities and prior to the time that the state on-scene coordinator determines that the cleanup is complete, in predicting the impact of the oil and in devising the most effective methods of protection for the natural resources at risk;

(B) identify appropriate sampling and data collection techniques to efficiently determine the impact on natural resources of the unauthorized discharge of oil;

(C) initiate, within 24 hours after approval for access to the site by the on-scene coordinator, an actual field investigation which may include sampling and data collection; the protocols shall require that the responsible party and the trustees be given, on request, split samples and copies of each other's photographs utilized in assessing the impact of the unauthorized discharge of oil; and

(D) establish plans, including alternatives that are cost-effective and efficient, to satisfy the goal of restoring, rehabilitating, replacing, and/or acquiring the equivalent of the injured natural resources.

(7) (A) The administrative procedures and protocols shall also include the following types of assessment procedures and deadlines for their completion:

(i) an expedited assessment procedure which may be used in situations in which the spill has limited observable mortality and restoration activities can be speedily initiated and/or in which the quantity of oil discharged does not exceed 1,000 gallons; the purpose of utilizing the expedited assessment procedure is to allow prompt initiation of restoration, rehabilitation, replacement, and/or acquisition of an equivalent natural resource without lengthy analysis of the impact on affected natural resources; this procedure shall, at a minimum, require that the trustees consider the following items:

(aa) the quantity and quality of oil discharged;

(bb) the time period during which coastal waters are affected by the oil and the physical extent of the impact;

(cc) the condition of the natural resources prior to the unauthorized discharge of oil; and

(dd) the actual costs of restoring, rehabilitating, and/or acquiring the equivalent of the injured natural resources;

(ii) a comprehensive assessment procedure for use in situations in which expedited or negotiated assessment procedures are not appropriate; and

(iii) any other assessment method agreed upon between the responsible person and the trustees, consistent with their public trust duties.

(B) The trustees shall determine, within 60 days of the determination by the on-scene coordinator that the cleanup is complete, whether:

(i) action to restore, rehabilitate, or acquire an equivalent natural resource is required;

(ii) an expedited assessment which may include early commencement of restoration, rehabilitation, replacement, and/or acquisition activities, may be required; and

(iii) a comprehensive assessment is necessary.

(C) The trustees may petition the commissioner for a longer period of time to make the above determination by showing that the full impact of the discharge on the affected natural resources cannot be determined in 60 days.

(D) The trustees shall complete the comprehensive assessment procedure within 20 months of the date of the determination by the state on-scene coordinator that the cleanup is complete. The trustees may petition the commissioner for a longer period of time to complete the assessment by showing that the full impact of the discharge on the affected natural resources cannot be determined in 20 months.

(E) Any assessment generated by the trustees shall be reasonable and have a rational connection to the costs of conducting the assessment and of restoring, rehabilitating, replacing, and/or acquiring the equivalent of the injured natural resources. The trustees shall ensure that the cost of any restoration, rehabilitation, replacement, or acquisition project shall not be disproportionate to the value of the natural resource before the injury. The trustees shall utilize the most cost-effective method to achieve restoration, rehabilitation, replacement, or acquisition of an equivalent resource. Furthermore, the trustees shall take into account the quality of the actions undertaken by the responsible party in response to the spill incident, including but not limited to containment and removal actions and protection and preservation of natural resources.

(F) The potentially responsible party shall make full payment within 60 days of the completion of the assessment by the trustees or, if mediation pursuant to this paragraph is conducted, within 60 days of the conclusion of the mediation. To facilitate an expedited recovery of funds for natural resource restoration and to assist the trustees and the responsible party in the settlement of disputed natural resource damage assessments at their discretion and at any time, all disputed natural resource damage assessments shall be referred to mediation as a prerequisite to the jurisdiction of any court. Results of the mediation and any settlement offers tendered during the mediation shall be treated as settlement negotiations for the purposes of admissibility in a court of law. Either the trustees or the potentially responsible person may initiate the mediation process, after an assessment has been issued, by giving written notice to the commissioner, who shall give written notice to all parties. One mediator shall be chosen by the trustees and one mediator shall be chosen by the responsible parties. Within 45 days of the receipt of the assessment from the trustees, the mediators shall be designated. The mediation shall end 135 days after the receipt of the assessment from the trustees.

Sec. 40.108. Derelict Vessels and Structures.

(a) A person may not leave, abandon, or maintain any structure or vessel involved in an actual or threatened unauthorized discharge of oil on public or private lands or at a public or private port or dock, in a wrecked, derelict, or substantially dismantled condition, without the consent of the commissioner.

(b) The commissioner may remove any vessel or structure described in Subsection (a) of this section and may recover the costs of removal from the owner or operator of the vessel or structure.

Sec. 40.109. Registration of Terminal Facilities.

(a) A person may not operate or cause to be operated a terminal facility without a discharge prevention and response certificate issued pursuant to rules promulgated under this chapter.

(b) (1) As a condition precedent to the issuance or renewal of a certificate, the commissioner shall require satisfactory evidence that:

(A) the applicant has implemented a discharge prevention and response plan consistent with state and federal plans and regulations for prevention of unauthorized discharges of oil and abatement, containment, and removal of pollution when such discharge occurs; and

(B) the applicant can provide, directly or through membership or contract with a discharge cleanup organization, all required equipment and trained personnel to prevent, abate, contain, and remove pollution from an unauthorized discharge of oil as provided in the plan.

(2) A terminal facility response plan that complies with requirements under federal law and regulations for a terminal facility response plan satisfies the requirements of Subdivision (1)(A) of this subsection.

Sec. 40.110. General Terms.

(a) Discharge prevention and response certificates are valid for a period of five years. The commissioner by rule shall require each registrant to report annually on the status of its discharge prevention and response plan and response capability.

(b) The commissioner may review a certificate at any time there is a material change affecting the terminal facility's discharge prevention and response plan or response capability.

(c) Certificates shall be issued subject to such terms and conditions as the commissioner may determine are reasonably necessary to carry out the purposes of this chapter.

(d) Certificates issued to any terminal facility shall take into account the vessels used to transport oil to or from the facility.

(e) The commissioner by rule shall establish and require payment of a reasonable fee for processing applications for certificates. This fee is in addition to the fee levied under Section 40.154 of this code and must be reasonably related to the administrative costs of verifying data submitted pursuant to obtaining the certificates and reasonable inspections.

(f) At least 30 days before issuing or renewing a certificate for a facility used for the exploration, development, or production of oil or gas, including the transportation of oil or gas by pipeline, the commissioner shall provide to the Railroad Commission of Texas a copy of the application for review and comment. The Railroad Commission of Texas may be reimbursed from the fund for its cost in reviewing and commenting on applications for certificates.

Sec. 40.111. Information.

Each applicant for a discharge prevention and response certificate shall submit information, in a form satisfactory to the commissioner, describing the following:

(1) the barrel or other measurement capacity of the terminal facility;

(2) the dimensions and barrel capacity of the largest vessel docking at or providing service from the terminal facility;

(3) the storage and transfer capacities and average daily throughput of the terminal facility;

(4) the types of oil stored, handled, or transferred at the terminal facility;

(5) information related to implementation of the applicant's discharge prevention and response plan, including:

(A) all response equipment such as vehicles, vessels, pumps, skimmers, booms, bioremediation supplies and application devices, dispersants, chemicals, and communication devices to which the terminal facility has access, as well as the estimated time required to deploy the equipment after an unauthorized discharge of oil;

(B) the trained personnel that are required and available to deploy and operate the response equipment, as well as the estimated time required to deploy the personnel after an unauthorized discharge of oil;

(C) the measures employed to prevent unauthorized discharges of oil; and

(D) the terms of agreement and operation plan of any discharge cleanup organization to which the owner or operator of the terminal facility belongs;

(6) the source, nature of, and conditions of financial responsibility for response costs and damages; and

(7) any other information necessary or appropriate to the review of a registrant's discharge prevention and response capabilities.

Sec. 40.112. Issuance.

On compliance with Sections 40.109 through 40.111 of this code and on payment of the certificate application fee, the commissioner shall issue the applicant a discharge prevention and response certificate covering the terminal facility.

Sec. 40.113. Suspension.

If the commissioner determines that a registrant does not have a discharge prevention and response plan or that the registrant's preventive measures or containment and cleanup capabilities are inadequate, the commissioner may, after notice and hearing as provided in Section 40.254 of this code, suspend the registrant's certificate until such time as the registrant complies with the requirements of this chapter.

Sec. 40.114. Contingency Plans for Vessels.

(a) Any vessel with a capacity to carry 10,000 gallons or more of oil as fuel or cargo that operates in coastal waters or waters adjoining and accessible from coastal waters shall maintain a written vessel-specific discharge prevention and response plan that satisfies the requirements of rules promulgated under this chapter. This section shall not apply to any dedicated response vessel or to any other vessel for activities within state waters related solely to the containment and cleanup of oil, including response-related training or drills.

(b) The plan must:

(1) provide for response actions including notification to the commissioner, verification of the unauthorized discharge, identification of the pollutant, assessment of the discharge, vessel stabilization, and discharge abatement and mitigation;

(2) designate an on-board spill officer who satisfies the definition of trained personnel as provided by Section 40.003 of this code and who shall train the vessel's crew to conduct unauthorized discharge response operations according to the plan and shall coordinate on-board response operations in the event of an unauthorized discharge; and

(3) contain any other provision the commissioner reasonably requires by rule.

(c) A discharge prevention and response plan that complies with requirements under federal laws and regulations for a vessel-specific plan satisfies the requirements of Subsections (a) and (b) of this section.

(d) The owner or operator of a vessel subject to this section must be able to provide, directly or through membership or contract with a discharge cleanup organization, all required equipment and trained personnel to prevent, abate, contain, and remove pollution from an unauthorized discharge of oil as provided in the plan.

Sec. 40.115. Entry into Port.

Prior to being granted entry into any port in this state, the person in charge of a vessel subject to Section 40.114 of this code may be required to report or show:

(1) any unauthorized discharges from the vessel since leaving the last port;

(2) any mechanical or operational problem on the vessel creating the possibility of an unauthorized discharge;

(3) any denial of entry into any port during the current voyage of the vessel;

(4) that the vessel has a discharge prevention and response plan and the trained personnel and equipment to implement it as required under this chapter; and

(5) that the vessel has evidence of financial responsibility as required under this chapter.

Sec. 40.116. Audits, Inspections, and Drills.

The commissioner may subject a vessel subject to Section 40.114 of this code, as a condition to being granted entry into any port in this state, or a terminal facility to an announced or unannounced audit, inspection, or drill to determine the discharge prevention and response capabilities of the terminal facility or vessels. Any vessel drill conducted by the commissioner shall be in cooperation and conjunction with the United States Coast Guard, and the commissioner's participation may not interfere with the schedule of the vessel.

Sec. 40.117. Regulations.

(a) The commissioner shall from time to time adopt, amend, repeal, and enforce reasonable regulations, including but not limited to those relating to the following matters regarding the unauthorized discharge of oil:

(1) standards and requirements for discharge prevention and response capabilities of terminal facilities and vessels;

(2) standards, procedures, and methods of designating persons in charge and reporting unauthorized discharges and violations of this chapter;

(3) standards, procedures, methods, means, and equipment to be used in the abatement, containment, and removal of pollution;

(4) development and implementation of criteria and plans of response to unauthorized discharges of various degrees and kinds, including realistic worst-case scenarios;

(5) requirements for complete and thorough inspections of vessels subject to Section 40.114 of this code and of terminal facilities;

(6) certification of discharge cleanup organizations;

(7) requirements for the safety and operation of vessels, motor vehicles, motorized equipment, and other equipment involved in the transfer of oil at terminal facilities and the approach and departure from terminal facilities;

(8) requirements that required containment equipment be on hand, maintained, and deployed by trained personnel;

(9) requirements for certification as trained personnel;

(10) standards for reporting material changes in discharge prevention and response plans and response capability for purposes of terminal facility certificate reviews; and

(11) such other rules and regulations consistent with this chapter and appropriate or necessary to carry out the intent of this chapter.

(b) The commissioner shall establish as a prerequisite for certification of any discharge cleanup organization, other than the Marine Spill Response Corporation and any discharge cleanup organization operated for profit, that the organization maintain on its governing body a minimum of two ex officio representatives from local governments within the area served by the organization.

SUBCHAPTER D. PAYMENT OF COSTS AND DAMAGES

Sec. 40.151. Coastal Protection Fund.

(a) The purpose of this subchapter is to provide immediately available funds for response to all unauthorized discharges, for cleanup of pollution from unauthorized discharges of oil, and for payment of damages from unauthorized discharges of oil.

(b) The coastal protection fund is established in the state treasury to be used by the commissioner as a nonlapsing revolving fund only for carrying out the purposes of this chapter. To this fund shall be credited all fees, penalties, judgments, reimbursements, and charges provided for in this chapter and the fee revenues levied, collected, and credited pursuant to this chapter. The fund shall not exceed $50 million.

(c) Repealed by Acts 1995, 74th Leg., ch. 1058, Sec. 14(a), eff. Aug. 30, 1995.

(d) Any interest in real or personal property acquired using money in the fund shall be held by the commissioner.

(e) When the balance of the fund reaches $25 million, income on the investment, in an amount not to exceed $5 million, shall be transferred to the Railroad Commission of Texas for the oil-field cleanup fund. Income on the investment of that $25 million in excess of $5 million shall be credited to the fund.

Sec. 40.152. Use of Fund.

(a) Money in the fund may be disbursed for the following purposes and no others:

(1) administrative expenses, personnel and training expenses, and equipment maintenance and operating costs related to implementation and enforcement of this chapter;

(2) response costs related to abatement and containment of actual or threatened unauthorized discharges of oil incidental to unauthorized discharges of hazardous substances;

(3) response costs and damages related to actual or threatened unauthorized discharges of oil;

(4) assessment, restoration, rehabilitation, or replacement of or mitigation of damage to natural resources damaged by an unauthorized discharge of oil;

(5) in an amount not to exceed $50,000 annually, the small spill education program;

(6) in an amount not to exceed $1,250,000 annually, interagency contracts under Section 40.302 of this code;

(7) the purchase of response equipment under Section 40.105 of this code within two years of the effective date of this chapter, in an amount not to exceed $4 million; thereafter, for the purchase of equipment to replace equipment that is worn or obsolete;

(8) an inventory under Section 40.107 of this code, to be completed by September 1, 1995, in an amount not to exceed $6 million; and

(9) other costs and damages authorized by this chapter.

(b) There is hereby appropriated from the fund to the General Land Office, subject to this section, the amounts specified for the purposes of Subdivisions (5) and (6) of Subsection (a) of this section, $2.5 million for administrative costs under this chapter for the two-year period beginning with the effective date of this chapter, and the actual amounts necessary to pay response costs and damages as provided in this chapter.

Sec. 40.153. Reimbursement of Fund.

The commissioner shall recover to the use of the fund, either from persons responsible for the unauthorized discharge or otherwise liable or from the federal fund, jointly and severally, all sums owed to or expended from the fund.

Sec. 40.154. Coastal Protection Fee; Administrative Costs.

(a) There is hereby imposed a fee on every person owning crude oil in a vessel at the time such crude oil is transferred to or from a marine terminal. This fee is in addition to all taxes or other fees levied on crude oil.

(b) The operator of the marine terminal shall collect the fee from the owner of the crude oil and remit the fee to the comptroller unless the owner of the crude oil is registered with the comptroller for remittance of the fee. The fee shall be imposed only once on the same crude oil. The fee shall be paid monthly by the last day of the month following the calendar month in which liability for the fee is incurred.

Sec. 40.155. Determination of Fee.

(a) Except as otherwise provided in this section, the rate of the fee shall be two cents per barrel of crude oil until the commissioner certifies that the unencumbered balance in the fund has reached $25 million. The commissioner shall certify to the comptroller the date on which the unencumbered balance in the fund exceeds $25 million. The fee shall not be collected or required to be paid on or after the first day of the second month following the commissioner's certification to the comptroller that the unencumbered balance in the fund exceeds $25 million.

(b) If the unencumbered balance in the fund falls below $14 million, the commissioner shall certify such fact to the comptroller. On receiving the commissioner's certification, the comptroller shall resume collecting the fee until suspended in the manner provided in Subsection (a) of this section.

(c) Notwithstanding the provisions of Subsection (a) or (b) of this section, the fee shall be levied at the rate of four cents per barrel if the commissioner certifies to the comptroller a written finding of the following facts:

(1) the unencumbered balance in the fund is less than $25 million;

(2) an unauthorized discharge of oil in excess of 100,000 gallons has occurred within the previous 30 days; and

(3) expenditures from the fund for response costs and damages are expected to deplete the fund substantially.

(d) In the event of a certification to the comptroller under Subsection (c) of this section, the comptroller shall collect the fee at the rate of four cents per barrel until the unencumbered balance in the fund reaches $25 million or any lesser amount that the commissioner determines is necessary to pay response costs and damages without substantially depleting the fund. The commissioner shall certify to the comptroller the date on which the unencumbered balance in the fund exceeds $25 million or such other lesser amount. The fee shall not be collected or required to be paid on or after the first day of the second month following the commissioner's certification to the comptroller.

(e) For purposes of this section, the unencumbered balance of the fund shall be determined by the unencumbered cash balance of the fund at the end of each month or on the date of a finding under Subsection (c) of this section.

Sec. 40.156. Administration of Fee.

(a) The comptroller shall administer the provisions of this section as provided in Chapters 101through 113 of the Tax Code.

(b) In the event the commissioner makes a finding under Section 40.155(c) of this code, the commissioner shall publish the finding in the *Texas Register*. In the event of any suspension or other reinstatement of the fee, the comptroller shall publish the suspension or reinstatement in the *Texas Register* at least 30 days prior to the scheduled effective date of the suspension or reinstatement.

(c) In the event of an emergency, the comptroller shall reinstate the fee in accordance with rules promulgated for that purpose.

(d) The fee levied under this section shall be due and collected beginning 60 days after the effective date of this chapter. Contingent upon receipt by the comptroller of such fees, the commissioner may temporarily use general revenue funds, in an amount not to exceed estimated revenues to the coastal

protection fund in the fiscal year in which revenues are collected. The general revenue amounts used shall be repaid out of the first fees collected under this chapter, and may be used only for purposes of meeting temporary cash flow needs during the fiscal year. The transfer and repayment of these funds shall be completed by the end of each fiscal year under procedures and standards established by the comptroller.

(e) If refunds are determined to be due, they shall be paid only from the fund.

Sec. 40.157. Liability of the Fund.

(a) Persons who incur response costs or who are entitled to damages as a result of an unauthorized discharge of oil may receive compensation from the fund.

(b) Any person other than the state seeking compensation from the fund must file a claim with the commissioner. The claimant must provide the commissioner with satisfactory proof of the costs incurred or damages claimed. Each claimant shall make a sworn verification of the claim.

(c) The commissioner shall prescribe appropriate forms and requirements and by rule shall establish procedures for filing claims for compensation from the fund and for response cost reimbursements to other state agencies from the fund.

Sec. 40.158. Exceptions to Liability.

(a) Except as provided by Subsection (b) of this section, the fund is absolutely liable for:

(1) all proven, reasonable response costs approved by the commissioner under Section 40.103 of this code from an unauthorized discharge of oil;

(2) all natural resources damages from an unauthorized discharge of oil; and

(3) with the exception of those damages proportionately attributable to the negligence or wilful misconduct of the claimant, all other proven damages from the fund from an unauthorized discharge of oil.

(b) A person liable for an unauthorized discharge of a hazardous substance may not file a claim or be reimbursed from the fund for the unauthorized discharge of a hazardous substance. A person responsible for an unauthorized discharge of oil may not file a claim or be reimbursed from the fund except:

(1) if the person responsible is entitled to a defense to liability under Section 40.204 of this code, a claim for response costs and damages may be filed; or

(2) if the person responsible is entitled to a limitation of liability under Section 40.202 of this code, a claim for response costs and damages to the extent that they exceed the applicable limitation may be filed.

(c) No claim may be approved or certified during the pendency of any action by the claimant in court to recover response costs or damages that are the subject of the claim.

Sec. 40.159. Claims from Discharges of Oil.

(a) (1) On determining that damage from an unauthorized discharge of oil is likely to occur or has occurred and will result in the filing of claims, the commissioner shall immediately designate the person or persons responsible who, if the designation is not challenged within five days of notice thereof, shall immediately and widely advertise the manner in which the person will accept claims.

(2) If the designation is challenged or the commissioner is otherwise unable to designate a responsible person, the commissioner shall immediately and widely advertise the manner in which the commissioner shall accept claims.

(b) (1) A claimant shall submit any claim exceeding $50,000 to the designated responsible person. If there is no reasonable response from the designated responsible person within 90 days or in the absence of a designated responsible person as provided under Subsection (a)(2) of this section, the claimant shall submit the claim to the federal fund. If there is no reasonable response from the federal fund within 60 days, the claimant may submit the claim to the fund.

(2) A claimant shall submit any claim less than or equal to $50,000 to the designated responsible person. If there is no reasonable response from the designated responsible person within 30 days or in the absence of a designated responsible person as provided under Subsection (a)(2) of this section, the claimant may submit the claim to the fund.

(c) Claims must be submitted to the fund by filing with the commissioner not later than 180 days after the periods prescribed in Subsection (b) of this section. Claims not filed within the time allowed are barred as against the fund.

Sec. 40.160. Payment of Awards.

(a) The commissioner shall establish the amount of the award. If the claimant accepts the award, the commissioner shall certify the amount of the award and the name of the claimant to the comptroller, who shall pay the award from the fund, subject to Section 40.162 of this code.

(b) If either the claimant or the person or persons determined by the commissioner to be responsible for the unauthorized discharge of oil disagrees with the amount of the award, such person may request a hearing. The commissioner shall hold a hearing and issue an order setting the amount of the award.

(c) Each person's claims arising from a single discharge must be stated in one application. Costs or damages omitted from any claim at the time a claimant accepts an award are waived. The commissioner may make partial final awards toward a single claim.

(d) If a person accepts an award from the fund, it shall bind both the claimant and the commissioner as to all issues covered by the award and may not be further attacked, collaterally or by separate action. The commissioner shall be subrogated to all rights or causes of action of the claimant arising from the unauthorized discharge and covered by the award. The claimant shall have no further cause of action against the person responsible for the discharge.

(e) Claims proceedings under this chapter are not contested cases under Chapter 2001, Government Code and judicial review of such proceedings is not available under that Act.

Sec. 40.161. Reimbursement of Fund.

(a) The commissioner shall diligently pursue reimbursement to the fund of any sum expended or paid from the fund.

(b) In any action to recover such sums, the commissioner shall submit to the court a written report of the amounts paid from or owed by the fund. The amounts paid from or owed by the fund stated in the report shall create a rebuttable presumption of the amount of the fund's damages. The written report shall be admissible in evidence.

Sec. 40.162. Awards Exceeding Fund.

(a) If the total awards against the fund exceed the existing balance of the fund, the claimant or claimants shall be paid from the future income of the fund. Each claimant or claimants shall receive a pro rata share of all money available in the fund until the total amount of awards is paid.

(b) The commissioner by rule may make exceptions to Subsection (a) of this section in cases of hardship. Amounts collected by the fund from the prosecution of actions shall be used to satisfy the claims as to which such prosecutions relate to the extent unsatisfied.

SUBCHAPTER E. LIABILITY OF PERSONS RESPONSIBLE

Sec. 40.201. Financial Responsibility.

(a) Each owner or operator of a vessel subject to Section 40.114 of this code and operating within coastal waters or waters adjoining and accessible from coastal waters or any terminal facility subject to this code shall establish and maintain evidence of financial responsibility for costs and damages from unauthorized discharges of oil pursuant to federal law or in any other manner provided in this chapter.

(b) If a vessel subject to Section 40.114 of this code or a terminal facility is not required under federal law to establish and maintain evidence of financial responsibility, the owner or operator of that vessel or terminal facility shall establish and maintain evidence in an amount and form prescribed by rules promulgated under this code.

(c) Any owner or operator of a vessel that is a member of any protection and indemnity mutual organization, which is a member of the international group, any other owner or operator that is an assured of the Water Quality Insurance Syndicate, or an insured of any other organization approved by the commissioner, and which is covered for oil pollution risks up to the amounts required by federal law is in compliance with the financial responsibility requirements of this chapter. The commissioner shall specifically designate the organizations and the terms under which owners and operators of vessels shall demonstrate financial responsibility.

(d) After an unauthorized discharge of oil, a vessel shall remain in the jurisdiction of the commissioner until the owner, operator, or person in charge has shown the commissioner evidence of financial responsibility. The commissioner may not detain the vessel longer than 12 hours after the vessel has proven financial responsibility.

(e) In addition to any other remedy or enforcement provision, the commissioner may suspend a registrant's discharge prevention and response certificate or may deny a vessel entry into any port in coastal waters for failure to comply with this section.

Sec. 40.202. Response Costs and Damages Liability.

(a) Subject to Subsection (c) of this section, any person responsible for an actual or threatened unauthorized discharge of oil from a vessel is liable for:

(1) all response costs from the actual or threatened discharge to an amount not to exceed $1 million for vessels of 300 gross tons or less that do not carry oil as cargo, to an amount not to exceed $5 million for vessels of 8,000 gross tons or less or, for vessels greater than 8,000 gross tons, to an amount equal to $600 per gross ton of such vessel, not to exceed the aggregate amount of the fund established under Section 40.151(b) of this code; and

(2) in addition to response costs, all damages other than natural resources damages from the actual or threatened discharge to an amount not to exceed $1 million for vessels of 300 gross tons or less that do not carry oil as cargo, to an amount not to exceed $5 million for vessels of 8,000 gross tons or less or, for vessels greater than 8,000 gross tons, to an amount equal to $600 per gross ton of such vessel, not to exceed the aggregate amount of the fund established under Section 40.151(b) of this code.

(b) Subject to Subsection (c) of this section, any person responsible for an actual or threatened unauthorized discharge of oil from a terminal facility is liable for:

(1) all response costs from the actual or threatened discharge to an amount not to exceed $5 million, except any person responsible for an actual or threatened unauthorized discharge of oil from an offshore drilling or production facility is liable for all response costs from the actual or threatened discharge; and

(2) in addition to response costs, all damages other than natural resources damages from the actual or threatened discharge to an amount not to exceed the aggregate amount of the fund established under Section 40.151(b) of this code, except any person responsible for an actual or threatened unauthorized discharge of oil from an offshore drilling or production facility is liable for all such damages from the actual or threatened discharge.

(c) (1) If any actual or threatened unauthorized discharge of oil was the result of gross negligence or wilful misconduct, the person responsible for such gross negligence or wilful misconduct is liable for the full amount of all response costs and damages.

(2) "Wilful misconduct" under this chapter includes intentional violation of state, federal, or local safety, construction, or operating standards or requirements, including the requirements of this chapter.

(3) If an actual or threatened unauthorized discharge of oil is not eligible for expenditures from the federal fund, the person responsible is liable for the full amount of all response costs and damages incurred by the fund.

(4) If the responsible person unreasonably fails to cooperate with discharge response and cleanup operations as provided in Section 40.106 of this code, the responsible person is liable for the full amount of all response costs and damages.

(d) Liability limits established under this section are exclusive of interest or attorney fees to which the state is entitled to recover under this code.

Sec. 40.203. Liability for Natural Resources Damages.

(a) The commissioner, on behalf of the trustees, shall seek reimbursement from the federal fund for damages to natural resources in excess of the liability limits prescribed in Section 40.202 of this code. If that request is denied or additional money is required following receipt of the federal money, the commissioner has the authority to pay the requested reimbursement from the fund for a period of two years from the date the federal fund grants or denies the request for reimbursement.

(b) In addition to liability under Section 40.202 of this code, persons responsible for actual or threatened unauthorized discharges of oil are liable for natural resources damages attributable to the discharge.

(c) The total liability for all natural resource damages of any person responsible for an actual or threatened unauthorized discharge of oil from a vessel shall not exceed the following:

(1) for a vessel that carries oil in bulk, as cargo, the greater of:

(A) $1,200 per gross ton; or

(B) (i) in the case of a vessel greater than 3,000 gross tons, $10 million; or

(ii) in the case of a vessel of 3,000 gross tons or less, $2 million; or

(2) for any other vessel, $600 per gross ton or $500,000, whichever is greater.

(d) The total liability for all natural resource damages of any person responsible for an actual or threatened unauthorized discharge of oil from a terminal facility shall not exceed the following:

(1) for each terminal facility with a capacity:

(A) above 150,000 barrels, $70 per barrel not to exceed $350,000,000;

(B) from 70,001 to 150,000 barrels, $10,000,000;

(C) from 30,001 to 70,000 barrels, $5,000,000;

(D) from 10,000 to 30,000 barrels, $2,000,000;

(2) for any other terminal, $500,000.

(e) The commissioner shall ensure that there will be no double recovery of damages or response costs.

(f) If any actual or threatened unauthorized discharge of oil was the result of gross negligence or wilful misconduct or a violation of any applicable federal or state safety, construction, or operating regulation, the person responsible for such gross negligence or wilful misconduct or a violation of any

applicable federal or state safety, construction, or operating regulation is liable for the full amount of all damages to natural resources.

Sec. 40.204. Defenses.

The only defense of a person responsible for an actual or threatened unauthorized discharge of oil shall be to plead and prove that the discharge resulted solely from any of the following or any combination of the following:

(1) an act of war or terrorism;

(2) an act of government, either state, federal, or local;

(3) an unforeseeable occurrence exclusively occasioned by the violence of nature without the interference of any human act or omission; or

(4) the wilful misconduct or a negligent act or omission of a third party, other than an employee or agent of the person responsible or a third party whose conduct occurs in connection with a contractual relationship with the responsible person, unless the responsible person failed to exercise due care and take precautions against foreseeable conduct of the third party.

Sec. 40.205. Third Parties.

If a responsible person alleges a defense under Section 40.204(4) of this code, the responsible person shall pay all response costs and damages. The responsible person shall be subrogated to any rights or cause of action belonging to those to whom such payment is made.

SUBCHAPTER F. ENFORCEMENT

Sec. 40.251. Penalties.

(a) A person who intentionally commits any of the following acts in violation of Subchapter C, D, or E of this chapter shall be guilty of a Class A misdemeanor:

(1) operating a terminal facility or vessel without a discharge prevention and response plan;

(2) operating a terminal facility or vessel without establishing and maintaining financial responsibility;

(3) causing, allowing, or permitting an unauthorized discharge of oil;

(4) making a material false statement with a fraudulent intent in an application or report; or

(5) with respect to the person in charge of a vessel from which an unauthorized discharge of oil emanates, taking the vessel from the jurisdiction of the commissioner prior to proving financial responsibility.

(b) A person responsible for an unauthorized discharge of oil or the person in charge of any vessel or terminal facility from or at which an unauthorized discharge of oil emanates, who knows or has reason to know of the discharge and who fails to give immediate notification of the discharge to the commissioner, shall be:

(1) subject to a civil penalty of not less than $500 nor more than $250,000 for an individual or $500,000 for a corporation, partnership, association, or other entity; and

(2) guilty of a Class A misdemeanor.

(c) A person responsible for an unauthorized discharge of oil shall be subject to a civil penalty of not less than $250 nor more than $25,000 for each day of the discharge, or not more than $1,000 per barrel of oil discharged.

(d) A person responsible for an unauthorized discharge of oil who without sufficient cause fails to abate, contain, and remove pollution from the discharge pursuant to applicable federal and state requirements and plans shall be liable for a civil penalty of not more than $25,000 for each day the pollution is not abated, contained, and removed, or not more than three times the costs incurred by the fund as a result of the discharge.

(e) A person who with a fraudulent intent makes or causes to be made any material false statement in filing a claim or reporting any information concerning an actual or threatened unauthorized discharge of oil in response to the requirements of this chapter shall be guilty of a third degree felony.

(f) A person who violates any provision, rule, or order issued under Subchapter C, D, or E of this chapter shall be subject to a civil penalty of not less than $100 nor more than $10,000 per violation for each day of violation, not to exceed a maximum of $125,000.

(g) It is a defense to prosecution for a criminal offense under Subchapter C, D, or E of this chapter that the conduct complained of was committed pursuant to response or cleanup operations and was authorized by the national contingency plan or the state coastal discharge contingency plan, by a discharge response plan required under this chapter, or by an authorized federal or state official.

(h) The defenses to liability under Section 40.204 of this code shall be defenses to the assessment of penalties under this chapter for any unauthorized discharge of oil.

Sec. 40.252. Administrative Penalties.

The commissioner may assess administrative penalties for the violations and in the amounts established in Section 40.251 of this code. In determining the amount of penalties, the commissioner shall consider:

(1) the seriousness of the violation, including the nature, circumstances, extent, and gravity of the violation and the hazard or damage caused thereby;

(2) the degree of cooperation and quality of response;

(3) the degree of culpability and history of previous violations by the person subject to the penalty;

(4) the amount necessary to deter future violations; and

(5) any other matter that justice requires.

Sec. 40.253. Cumulative Enforcement.

This subchapter is cumulative of all other applicable penalties, remedies, and enforcement and liability provisions.

Sec. 40.254. Orders and Hearings.

(a) The commissioner shall assess administrative penalties and pursue suspension of terminal facility discharge prevention and response certificates in accordance with this section.

(b) If the commissioner, after an investigation, concludes that a violation has occurred for which a penalty should be assessed or a discharge prevention and response certificate should be suspended, the commissioner shall issue a preliminary report:

(1) stating the facts that support the conclusion;

(2) recommending that a penalty be imposed or a certificate be suspended, or both; and

(3) recommending the amount of the penalty.

(c) The commissioner shall serve written notice of the preliminary report to the person charged with the violation not later than the 10th day after the date on which the report is issued. The notice must include:

(1) a brief summary of the charges;

(2) a statement of the commissioner's recommendations;

(3) a statement of the right of the person charged to a hearing; and

(4) a copy of the preliminary report.

(d) Not later than the 20th day after the date on which the notice is served, the person charged may consent in writing to the report, including the commissioner's recommendations, or make a written request for a hearing.

(e) (1) If the person charged consents to the commissioner's recommendations or does not timely respond to the notice, the commissioner by order shall take the recommended action or order a hearing to be held on the findings and recommendations in the report.

(2) If the commissioner takes the recommended action, the commissioner shall serve written notice of the decision to the person. The person charged must comply with the order and pay any penalty assessed.

(f) (1) If the person charged requests a hearing the commissioner shall order a hearing and shall give written notice of that hearing.

(2) The hearing shall be held by a hearing examiner designated by the commissioner.

(3) The hearing examiner shall make findings of fact and promptly issue to the commissioner a written decision as to the occurrence of the violation and a recommendation on suspension of the discharge prevention and response certificate, the amount of any proposed penalty, or both.

(4) Based on the findings of fact and the recommendations of the hearing examiner, the commissioner by order may find that a violation has occurred and assess a penalty or suspend a discharge prevention and response certificate, or both, or may find that no violation occurred.

(5) The commissioner shall serve notice to the person charged of the commissioner's decision. If the commissioner finds that a violation has occurred and assesses a penalty or suspends a discharge prevention and response certificate, the commissioner shall give to the person charged written notice of:

(A) the commissioner's findings;

(B) the amount of the penalty or the terms of the suspension; and

(C) the person's right to judicial review of the commissioner's order.

(g) (1) Not later than the 30th day after the date on which the commissioner's order is final, the person charged shall comply with the order or file a petition for judicial review.

(2) If the person seeks judicial review the person, within the time provided by Subdivision (1) of this subsection, shall:

(A) send the amount of the penalty to the commissioner for placement in an escrow account; or

(B) post with the commissioner a supersedeas bond in a form approved by the commissioner for the amount of the penalty, the bond to be effective until judicial review of the order or decision is final.

(3) A person who fails to comply with Subdivision (2) of this subsection waives the right to judicial review. On failure to comply with the order or Subdivision (2) of this subsection, the commissioner may refer the matter to the attorney general for collection and enforcement.

(4) Judicial review of the order or decision of the commissioner shall be under Subchapter G, Chapter 2001, Government Code.

(h) (1) If a penalty is reduced or not assessed, the commissioner shall:

(A) remit to the person charged the appropriate amount of any penalty payment plus accrued interest; or

(B) execute a release of the bond if a supersedeas bond has been posted.

(2) Accrued interest on amounts remitted by the commissioner shall be paid for the period beginning on the date the penalty is paid to the commissioner and ending on the date the penalty is remitted at a rate equal to the rate charged on loans to depository institutions by the New York Federal Reserve Bank.

(i) Payment of an administrative penalty under this section shall preclude, in any action brought under this chapter, collection of a civil penalty for the violation specified in the commissioner's order.

Sec. 40.255. Actions.

(a) The commissioner may seek injunctive relief to prevent a violation of this chapter from continuing or occurring.

(b) All actions on behalf of the state to enforce this chapter or recover civil penalties, unpaid administrative penalties, claims of the fund, response costs, and damages arising under this chapter shall be brought by the attorney general at the direction of the commissioner. In any such action in which the state prevails, the state shall be entitled to recover reasonable attorney fees.

(c) Repealed by Acts 1993, 73rd Leg., ch. 776, Sec. 10, eff. Sept. 1, 1993.

(d) Each owner or operator of a terminal facility or vessel subject to the provisions of this chapter shall designate a person in the state as his legal agent for service of process, and such designation shall be filed with the secretary of state. In the absence of such designation, the secretary of state shall be the designated agent for purposes of service of process under this chapter.

Sec. 40.256. Individual Cause of Action.

The remedies in this chapter are cumulative and not exclusive. This chapter does not require pursuit of any claim against the fund as a condition precedent to any other remedy, nor does this chapter prohibit any person from bringing an action at common law or under any other law not inconsistent with this chapter for response costs or damages resulting from a discharge or other condition of pollution covered by this chapter. No such action shall collaterally estop or bar the commissioner in any action brought by the commissioner under this chapter.

Sec. 40.257. Venue.

(a) Venue for all actions and prosecution of all offenses under this chapter may be brought in Travis County or in any county where the violation of this chapter that is the subject of the action or prosecution occurred.

(b) All appeals from administrative proceedings under this chapter shall be filed in a district court of Travis County, Texas, pursuant to Chapter 2001, Government Code.

Sec. 40.258. Federal Law.

(a) (1) The commissioner shall promulgate rules and a state coastal discharge contingency plan that, to the greatest extent practicable, conform to the national contingency plan and rules promulgated under federal law.

(2) The commissioner may impose requirements under such rules and the state coastal discharge contingency plan that are in addition to or vary materially from federal requirements if the state interests served by the requirements substantially outweigh the burdens imposed on those subject to the requirements.

(3) Any request for judicial review of any rule or any provision of the state coastal discharge contingency plan based on Subdivision (1) or (2) of this subsection must be filed in a district court in Travis County within 90 days of the effective date of the rule or plan challenged.

(4) Any matter subject to judicial review under Subdivisions (1) through (3) of this subsection shall not be subject to judicial review in any civil or criminal proceeding for enforcement or for recovery of response costs or damages.

(b) In implementing this chapter, the commissioner to the greatest extent practicable shall employ federal funds unless federal funds will not be available in an adequate period of time.

(c) All federal funds received by the state relating to response to unauthorized discharges of oil under this chapter shall be deposited in the fund.

Title 31 Texas Administrative Code Chapter 19: General Land Office Coastal Oil Spill Rules

SUBCHAPTER A

§19.1. Purpose.

This subchapter establishes a final rule under the Oil Spill Prevention and Response Act of 1991 (OSPRA), Texas Natural Resources Code, Chapter 40, which became law March 28, 1991. OSPRA supports and complements the Oil Pollution Act of 1990 (OPA), Public Law 101-380, which became law on August 18, 1990. This subchapter is intended to establish basic rules to provide for orderly and efficient administration of OSPRA until more comprehensive rule-making can occur in coordination with the rule-making process by federal agencies under OPA. The General Land Office intends to amend this subchapter in anticipation of and in response to federal rule-making, as well as when development of Texas' own oil spill prevention and response program so requires.

§19.2 Definitions

(a) The following words, terms and phrases, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Coastal waters--All tidally influenced waters extending from the head of tide in the arms of the Gulf of Mexico seaward to the three marine league limit of Texas' jurisdiction; and non-tidally influenced waters extending from the head of tide in the arms of the Gulf of Mexico inland to the point at which navigation by regulated vessels is naturally or artificially obstructed. The term includes the entirety of the Gulf Intracoastal Waterway (GIWW) within Texas, and the following waters: starting from Echo, Texas, located in Orange County, and proceeding south on the Sabine River to the intersection with the GIWW, thence westerly along the GIWW, including Adams Bayou, to 0.7 miles upstream of IH-10, and Cow Bayou, to IH-10. This includes the Neches River in Orange County to 7.0 miles upstream of IH-10. Then along the GIWW towards Port Arthur, including Taylors Bayou south of Highway 73. From Port Arthur along the GIWW to, and including, East Bay, Trinity Bay, Cedar Bayou to 1.4 miles upstream of IH-10 in Harris/Chambers County, Lynchburg Canal to 29 degrees 41'00"N, 94 degrees 59'00"W, San Jacinto River in Harris County to the Lake Houston Dam, and the Houston Ship Channel to the turning basin. Tidal tributaries of the Houston Ship Channel include: Buffalo Bayou to .25 miles upstream of Shepherd Drive, Brays Bayou to the Broadway Street Bridge, Sims Bayou to Highway 225, Vince Bayou to North Ritchie Street, Hunting Bayou to I-10, Greens Bayou to I-10, Boggy Bayou to Highway 225, Tucker Bayou to Old Battleground Road, Carpenter's Bayou to Sheldon Road, and Goose Creek to Highway 146. Proceed south and include Barbours Cut,

Bayport Channel, Clear Lake to .063 miles upstream of FM 528 in Galveston/Harris County, Dickinson Bay, Dickinson Bayou 2.5 miles downstream of FM 517 in Galveston County, Moses Lake, Dollar Bay, Texas City Channel (including turning basin), Swan Lake, Jones Bay, and continuing at the junction of West Bay and the GIWW in Galveston County. Continue westerly along the GIWW to the Port of Freeport, including Greens Lake, Chocolate Bay, Chocolate Bayou to 2.6 miles downstream of SH 35, the Old Brazos River and the New Brazos River up to the Missouri-Pacific Railroad bridge in Brazoria County, and the Dow Barge Canal. Then southerly along the GIWW through and including Jones Lake and Creek, the San Bernard River to 2.0 miles upstream of SH 35, Cowtrap Lake, Matagorda Bay, the Colorado River to 1.3 miles downstream of the Missouri-Pacific Railroad in Matagorda County, to the Port of Bay City, Culver Cut (West Branch Colorado River to 28 degrees 42'N and the entire middle branch), Crab Lake, Oyster Lake, Tres Palacios Bay, Turtle Bay, Caranchua Bay, Keller Bay, Cox Bay, Lavaca Bay, Lavaca River to 5.3 miles downstream of U.S. 59 in Jackson County, Chocolate Bay/Bayou, Powderhorn Lake, Robinsons Lake, Blind Bayou, La Salle Bayou, Broad Bayou, and Boggy Bayou. Continuing southerly on GIWW from Port O'Connor through San Antonio Bay including: Guadalupe Bay, Mission Lake, Green Lake, Victoria Barge Canal, Guadalupe River to the Guadalupe-Blanco River Authority Salt Water Barrier 0.4 miles downstream of the confluence of the San Antonio River, Goff Bayou, Hog Bayou, Corey Bay, Buffalo Lake, Alligator Slide Lake, Twin Lake, Mustang Lake, and Jones Lake. Then continuing through Mesquite Bay including: Dunham Bay, Long Lake, Sundown Bay, and the Aransas Wildlife Refuge. Continuing southerly through St. Charles Bay including: Burgentine Bay/Burgentine Creek to 28 degrees 17'N, Salt Creek to 28 degrees 16'N, and Cavaso Creek to 97 degrees 01'W. Then through Copano Bay, including Copano Creek, Mission Bay, Mission River to 4.6 miles downstream of U.S. 77, Chiltipin Creek, Aransas River to 3.3 miles upstream of Chiltipin Creek in Refugio/San Patricio County, Swan Lake, Port Bay, and Salt Lake. Then southerly including: Little Bay, Aransas Bay, Conn Brown Harbor, Redfish Cove, Redfish Bay, La Quinta Channel, Nueces River to Calallen Dam 1.1 miles upstream of U.S. 77/IH 37 in Nueces/San Patricio County, Rincon Industrial Channel, Rincon Bayou, Nueces Bay, Tule Lake, Corpus Christi Inner Harbor, Oso Creek, Oso Bay, Cayo del Oso, and Corpus Christi Bay. Continuing south, through and including Packery Channel, Laguna Madre, Baffin Bay, Alazan Bay, Cayo del Hinoso, Petrolino (sic; Petronila) Creek from the confluence of Chiltipin Creek in Kleberg County to 0.6 miles upstream of private road crossing near Laurless Ranch, Cayo del Infiernillo, Cayo del Grullo, Laguna Salada, Laguna de los Olmos, and Comitas Lake. Continuing through the Laguna Madre to Redfish Bay, Port Mansfield Harbor, Four Mile Slough, Cayo Atascosa, Laguna Atascosa, Arroyo Colorado Cutoff, El Realito Bay, Laguna Vista Cove, Port Isabel Harbor, Brownsville Ship Channel, Bahia Grande, Vadia Ancha, San Martin Lake, South Bay, and the Arroyo Colorado River to .063 miles downstream of Cemetery Road south of Port Harlingen in Cameron County. Then southerly to the Rio Grande River to 6.7 miles downstream of the International Bridge in Cameron County. Where the coastal area is defined by a body of water such as a bay or lake, it includes any small bays or lakes encompassed therein.

(2) Commissioner—The commissioner of the General Land Office.

(3) Discharge cleanup organization—A corporation, partnership, proprietorship, organization, or association that intends to make itself available to engage in response actions to abate, contain, or remove an unauthorized discharge or pollution or damage from an unauthorized discharge.

(4) Environmentally sensitive areas—Streams and water bodies, aquifer recharge zones, springs, wetlands, bird rookeries, endangered and threatened species (flora and fauna) habitat, wildlife preserves or conservation areas, parks, beaches, dunes, or any other area protected or managed for its natural resource value.

(5) Facility—Mobile or portable units, other than vessels, generally are considered facilities only when they are fixed in location and operating in coastal waters.

(A) Any pipeline, structure, equipment, or device used for handling oil, including, but not limited to, underground and aboveground tanks, impoundments, mobile or portable drilling or workover rigs and barge-mounted drilling or workover rigs operating in coastal waters, and portable fueling facilities located offshore or adjacent to coastal waters as defined in paragraph (1) of this subsection or any place where a discharge of oil from the facility could enter or pose an imminent threat to coastal waters.

(B) A combination of interrelated or adjacent tanks, impoundments, pipelines, gathering lines, flow lines, separator or treatment facilities, and other structures, equipment, or devices under common ownership or operation generally will be considered a single facility under OSPRA. Interrelated means that the devices are all an integral part of one commercial or industrial operation or are managed and controlled by a single entity. The term includes facilities owned by units of federal, state, or local government, as well as privately owned facilities.

(6) Fund—The coastal protection fund established under OSPRA.

(7) Federal fund—The oil spill liability trust fund established under OPA.

(8) Handle—To transfer, transport, pump, treat, process, store, dispose of, drill for, or produce.

(9) Harmful quantity of oil—The presence of oil from an unauthorized discharge in a quantity sufficient either to create a visible film or sheen upon or discoloration of the surface of the water or a shoreline, tidal flat, beach, or marsh, or to cause a sludge or emulsion to be deposited beneath the surface of the water or on a shoreline, tidal flat, beach, or marsh.

(10) National contingency plan—The plan prepared under the Federal Water Pollution Control Act (33 United States Code §1321 et seq.) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 United States Code §9601 et seq.), as revised from time to time.

(11) Oil—Means oil of any kind or in any form, including but not limited to crude oil, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil, but does not include petroleum, including crude oil or any fraction thereof, which is specifically listed or designated as a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), §101(14), Subparagraphs (A)–(F) (42 United States Code §9601 et seq.), and which is subject to the provisions of that Act, and which is so designated by the Texas Natural Resource Conservation Commission.

(12) OPA—The Oil Pollution Act of 1990, Public Law 101-380.

(13) OSPRA—The Oil Spill Prevention and Response Act of 1991, Natural Resources Code, Chapter 40.

(14) Owner or operator—Any person, individual, partnership, corporation, association, governmental unit, or public or private organization of any character:

(A) owning, operating or responsible for operating, or chartering by demise a vessel;

(B) owning, operating, or responsible for operating a facility; or

(C) operating a facility by lease, contract, or other form of agreement. The term does not include a person who owns only the land underlying a facility or a person who owns only a security interest in a vessel or facility if the person does not participate in the operation of the vessel or facility, does not own a controlling interest in the owner or operator of the vessel or facility, and is not controlled by or under common ownership with the owner or operator of the vessel or facility.

(15) Regulated vessel—A vessel with a capacity to carry 10,000 U.S. gallons or more of oil as fuel or cargo.

(16) Unauthorized discharge—Discharges excluding those authorized by and in compliance with a government permit, seepage from the earth solely from natural causes, and unavoidable, minute discharges of oil from a properly functioning engine, of a harmful quantity of oil from a vessel or facility either:

(A) into coastal waters; or

(B) on any waters or land adjacent to coastal waters where harmful quantities of oil may enter coastal waters or threaten to enter coastal waters if the discharge is not abated nor contained and the oil is not removed.

(17) Underground storage tank—Any tank or container used for storing oil which is located completely under the surface of the earth. Tanks which are partially buried or which are contained in aboveground vaults or other aboveground containment structures are not

considered underground tanks for the purpose of certification requirements under these sections.

(18) Underwriter—An insurer, a surety company, a guarantor, or any other person, other than an owner or operator of a vessel or facility, that undertakes to pay all or part of the liability of an owner or operator.

(19) Waste—Oil or contaminated soil, debris, and other substances removed from coastal waters and adjacent waters, shorelines, estuaries, tidal flats, beaches, or marshes in response to an unauthorized discharge. Waste means any solid, liquid, or other material intended to be disposed of or discarded and generated as a result of an unauthorized discharge of oil. Waste does not include substances intended to be recycled if they are in fact recycled within 90 days of their generation or if they are brought to a recycling facility within that time.

(20) Worst case unauthorized discharge—The largest foreseeable unauthorized discharge under adverse weather conditions. For facilities located above the high water line of coastal waters, a worst case discharge includes those occurring in weather conditions most likely to cause oil discharged from the facility to enter coastal waters.

(21) Coastal Facility Designation Line—The Coastal Facility Designation Line delineates the area within which a facility may be subject to the certification requirements of §19.12 of this title (relating to Facility Certification). The line does not delineate OSPRA's response or notification requirements; rather, it gives notice to facilities located coastward of the line that they may be subject to facility certification requirements. These facilities should contact the General Land Office (GLO). The GLO will then, based on the precise location of the facility and based on the quantity of oil handled, determine whether facility certification is required. A description of the coastal facility designation line and a map can be found in Appendix 1.

(b) All other terms used in this chapter and defined in OSPRA have the meaning assigned to them by OSPRA.

§19.3 Inspections and Access to Property

(a) Officers, employees, or authorized agents of the General Land Office (GLO) may enter and inspect any land, building, facility, vessel, device, equipment, or other property to respond to an unauthorized discharge, to determine compliance or noncompliance with OSPRA or any rule, order, or certificate issued under OSPRA, to ascertain discharge prevention and response capability, and to assess natural resources damages. Drills, audits, and inspections may be announced or unannounced. If unannounced, the GLO will make a reasonable effort to obtain the consent of the owner of the vessel or facility prior to entry. In the event of a response to an unauthorized discharge of oil or the threat of an unauthorized discharge of oil, the GLO will also make a reasonable effort to obtain consent; this effort will be consistent with the need for prompt abatement and containment actions for the protection of health, safety, and natural resources. A reasonable effort to obtain consent means that a readily identifiable

owner or owner's representative has been informed of the GLO's authority to undertake the proposed actions requiring entry and that the purpose of the entry has been described and the owner and or his representative have been afforded the opportunity to accompany the GLO during the audit or inspection or to be kept informed of GLO activities during a response event.

(b) The GLO's officers, employees, and agents will present credentials and explain the purpose and scope of the requested entry onto private property. Upon gaining access to the property, the GLO's representative may:

(1) sample and test any substance or environmental media;

(2) observe the performance of equipment;

(3) take photographs and videotapes and other recordings;

(4) review and copy documents;

(5) inspect discharge prevention and response equipment and supplies;

(6) inspect containment and drainage areas and any other portion of the facility or vessel where oil is handled.

(c) The GLO's officers, employees, and agents must observe a vessel's or facility's standard safety requirements. Standard safety requirements as set forth in the *Occupational Safety and Health Act* (OSHA) (29 United States Code Annotated §651 et seq.) and applicable regulations or in any State of Texas statute or rule will be observed. Any additional or other requirement imposed by the owner or operator will be observed only to the extent that it does not unreasonably hinder the objective of the authorized entry.

§19.4 Waiver

(a) Upon written request, the commissioner may waive a provision of this chapter if the commissioner determines that the application of the provision would be inconsistent with the fundamental intent and purpose of OSPRA. The commissioner may also waive any requirement of this chapter if the commissioner determines that other existing federal or state statutory or regulatory provisions provide requirements necessary to implement OSPRA.

(1) Waiver from requirements of this chapter. Any person may request a waiver from a requirement of this chapter by submitting the following information to the commissioner:

(A) the name, address, and telephone number of the person submitting the requested waiver, and if that person is the agent of the person requesting the waiver, then the agent must also state the name, address, and telephone number of the person for whom the waiver is requested;

(B) a specific reference to the requirement from which the person is requesting a waiver;

(C) a detailed statement of the reasons which warrant a waiver;

(D) an analysis of the waiver's impact on the person's ability to prevent, abate, clean up, and remove an unauthorized discharge of oil.

(2) Waiver from facility certification requirements. Any person may request a waiver from the facility certification requirement of this chapter by submitting the following information to the commissioner:

(A) the name, address, and telephone number of the person submitting the requested waiver, and if that person is the agent of the person requesting the waiver, then the agent must also state the name, address, and telephone number of the person for whom the waiver is requested;

(B) the address and location, including directions from the nearest highway, of the facility subject to the requirements of this chapter;

(C) vicinity map and United States Geological Survey (USGS) Quad map (1:24,000) showing the location of the facility for which waiver is requested;

(D) a brief description of the business conducted at the facility, including the quantity and types of oil handled;

(E) a summary of the prevention and response practices utilized at the facility supporting the contention that an unauthorized discharge of oil therefrom will not pose an imminent threat to coastal waters;

(F) a summary of any other reasons that this chapter should not apply to the facility.

(3) Receipt of a request for waiver from any facility subject to certification requirements will be deemed to constitute compliance with all timelines for facility certification. Any person whose request for waiver is denied will be given a reasonable time to comply with all the requirements for certification.

(4) Requests for waivers from facility certification requirements will be evaluated by considering the following factors:

(A) the physical location of the facility, including:

(i) proximity to coastal waters;

(ii) proximity to environmentally sensitive areas;

(iii) topography;

(iv) site drainage;

(v) flood tide impacts;

(vi) the condition of oil storage areas, including age and condition of oil storage containers, evidence of past spills, leak detection abilities, and secondary or passive containment systems;

(B) the type and quantity of oil handled;

(C) the factors listed in this paragraph will be weighted so that subparagraph (A)(vi) of this paragraph will be considered only in the event that a determination cannot be made based solely on the other listed factors.

(D) The commissioner will conduct a field investigation, if necessary, to determine whether to grant the request for waiver.

(b) Where adequate precautions are taken to avoid environmental and property damage and other necessary governmental agencies have consented, the commissioner may allow the discharge of limited amounts of oil into or upon coastal waters or adjacent waters, shorelines, estuaries, tidal flats, beaches, or marshes, as part of a drill, demonstration of response capability or technology, or other study or project to further discharge prevention or response capability.

§19.5 Forms

The General Land Office (GLO) will promulgate forms for applications, filings, and reports required by OSPRA or this chapter. Where this chapter specifies that a particular form is available from the GLO, the applicant, claimant, or person filing information with the GLO must use the GLO form. The applicant, claimant, or person filing may supplement the GLO form with separate documentation where not inconsistent with this chapter.

§19.6 Confidentiality

An applicant, claimant, or person filing information with the General Land Office (GLO) must make any claim of confidentiality of documentation, records, or information when it is filed with the GLO or the claim of confidentiality is waived.

SUBCHAPTER B SPILL PREVENTION AND PREPAREDNESS

§19.11 Categories of Coastal Facilities

(a) There are five types of coastal facilities: exempt, small commercial, underground storage, small, and major. For the purpose of determining the size of the facility, oil stored in underground tanks, as defined in §19.2(a)(16) of this title (relating to Definitions), need not be included in the total. Coastal facilities are classified according to oil storage and transfer capacity. Oil that is integral to equipment, such as oil in transformers or oil that is part of operating machinery, is not included in determining facility capacity or usage. Where a facility has storage capacity that is in excess of its actual usage, then the facility may base its certification on the actual usage. An explanation for the basis of the actual usage quantity rather than storage capacity quantity must be provided.

(b) Exempt facilities are:

(1) farm or residential tanks with a capacity of 1,320 U.S. gallons or less that are used for storing oil for farm or residential purposes only;

(2) exploration and production structures and devices that handle oil and that are not waterfront or offshore. For the purpose of facility certification requirements, waterfront means located within 100 yards of coastal waters and offshore means located in coastal waters of the State of Texas. Exploration and production facilities, for the purposes of this exemption are the following facilities associated with the production of oil: all wells, separators, treaters, dehydrators, flow tanks, frac tanks, gun barrels, stock tanks, sediment oil tanks, storage tanks, tank batteries, and flow lines, gathering lines, lead lines, and feeder lines. It does not include main pipelines, independent pipelines, trunk lines, transmission lines, distribution lines, any pipeline considered a common carrier, or major storage facilities. For the purposes of this exemption, a major storage facility is a facility which stores in excess of 2,500 barrels of oil. Storage means the actual quantity of oil stored at the facility and not the storage capacity of the facility. An owner or operator of an exempt facility is not required to obtain a discharge prevention or response certificate or to have a discharge prevention and response plan or proof of financial responsibility.

(c) Small commercial facilities are facilities that have an oil storage or transfer capacity of 1,320 U.S. gallons or less and that are used for any commercial or industrial purpose.

(d) Underground storage facilities are waterfront facilities which store any quantity of oil only in underground storage tanks. These waterfront facilities do not store oil in any other type of tank or container.

(e) Small facilities are facilities, other than exempt facilities, that have a storage or daily transfer capacity not exceeding 10,000 U.S. gallons of oil.

(f) Major facilities are facilities that have an oil storage or daily oil transfer capacity of more than 10,000 U.S. gallons.

§19.12 Facility Certification

(a) The owner of a regulated facility must apply to the General Land Office (GLO) for a discharge prevention and response certificate. No facility may commence or continue operations after January 1, 1993, without a discharge prevention and response certificate issued by GLO. However, any person who has requested a waiver from facility certification requirements, pursuant to §19.4 of this title (relating to Waiver), is deemed to be in compliance with all time limits set forth herein. Application forms are available from the General Land Office, Oil Spill Response Prevention and Response Division, 1700 North Congress Avenue, Austin, Texas 78701-1495.

(b) In the case of a facility whose owner is a different person or entity than its operator, the commissioner may require both the owner and operator to file an application for certification. The commissioner may also require only one of the parties to file an application. Generally, the lease operator must file the application for certification of exploration and production activities on an oil and gas lease.

(c) For corporate applicants, the application must be signed by an officer of at least the rank of vice-president. For partnerships, the application must be signed by a partner. All applications must also be signed by the person responsible for operation of the facility; this includes, for example, the facility manager, or an area manager if the facility does not have management on site.

(d) An applicant for a discharge prevention and response certificate must pay an application fee when the application is filed. An owner or operator who is submitting applications for more than one facility is required to pay only one application fee based on the largest size facility for which an application is submitted. The amount of the fee is determined by the type of regulated facility as follows:

(1) $100 for small facilities that have a storage or daily transfer capacity or actual usage not exceeding 10,000 U.S. gallons;

(2) $1,000 for major facilities that have a storage or daily transfer capacity or actual usage not exceeding 250,000 U.S. gallons;

(3) $2,500 for all other major facilities;

(4) small commercial facilities and underground storage facilities are not required to pay an application fee.

(e) A regulated facility may not handle oil after January 1, 1993, without a discharge prevention and response certificate issued by GLO. Facilities which commence operation after January 1, 1993, shall be granted a 90-day period from the commencement of operations or production to apply for facility certification. Facilities must notify GLO when oil is first handled at the site by calling the Oil Spill

Prevention and Response Division at (512) 475-1575. Facilities must recertify their discharge prevention and response certificates at the expiration of five years from the date the original discharge and response certificate was issued by the GLO. The fee for recertification will be 10% of the cost of the original application fee.

(f) Proof of financial responsibility as required by OSPRA and by this chapter means any proof of financial responsibility already required by any other federal or state law. Requirements under this chapter will be based on regulations yet to be promulgated by the federal government. The commissioner will not deny certification to any facility because of failure to meet any specific amount or form of financial responsibility until specific rules under this chapter are adopted. Pending promulgation of rules under this chapter, the request for proof of financial responsibility in the application for facility certification is for informational purposes only. Facilities are requested to inform the commissioner of the amount and type of financial responsibility currently in place for the particular facility.

(g) In lieu of the separate applications required in §19.13 and §19.14 of this title (relating to Applications for Small Commercial Facilities, Underground Storage Facilities, and Small Facilities; and Applications for Major Facilities, respectively), applicants may submit to the GLO two copies of their Federal Response Plan(s) prepared under OPA if that plan(s) is complete, but undergoing approval as required by the United States Coast Guard, the Environmental Protection Agency, the Mineral Management Service, or the Research and Special Programs Administration. Federal response plan means any plan submitted to a federal agency pursuant to the *Federal Water Pollution Control Act*, 33 United States Code §1321(j). Applicants are required to forward to the GLO copies of all correspondence among the applicant and any or all of the following agencies: the United States Coast Guard, the Environmental Protection Agency, the Minerals Management Service, or the Research and Special Programs Administration relating to the receipt, acceptance, deficiencies and notification of changes in the Federal Response Plan(s) submitted for approval. The applicant should submit the plan(s) and correspondence by mail to: Texas General Land Office, Oil Spill Prevention and Response Division, 1700 North Congress Avenue, Austin, Texas 78701-1495.

(h) A guidance document outlining the procedures for application for facility certification can be obtained by submitting a request to the Texas General Land Office, Oil Spill Prevention and Response Division, 1700 North Congress Avenue, Austin, Texas 78701-1495, (512) 475-1575.

§19.13 Applications for Small Commercial Facilities, Underground Storage Facilities, and Small Facilities

(a) All applicants for certification as small commercial facilities and/or as underground storage facilities must submit the following information:

(1) the name and address of the facility including street address and directions from the nearest highway, the name and address of the owners and operators of the facility, the person or persons in charge of the facility, as that term is defined in §19.16 of this title (relating to Person in Charge), and the registered agent for service as required by OSPRA;

(2) a description of the facility, including:

(A) the primary business activity of the facility;

(B) the maximum quantity of oil stored or handled at the facility, a list of all the types of oil handled and or stored and the location of and contact person for the material safety data sheets for all the types of oil handled;

(C) the uses or purposes for which oil is handled or stored;

(D) the types of containers in which oil is handled or stored and whether such containers are exposed to the elements and whether any containment structures or devices are provided;

(E) a list of any spill containment, abatement, and cleanup equipment located at the facility;

(F) a description of the facility's plan for responding to an unauthorized discharge of oil;

(G) the Texas Natural Resource Conservation Commission petroleum storage tank facility identification number (i.e., PST ID number, facility registration number); and

(H) schedules, methods and procedures at the facility for maintaining and evaluating the readiness of facility-owned and facility-maintained response equipment and supplies. This subsection applies only to equipment owned or maintained by a facility.

(b) All applicants for certification as small facilities must submit the following information:

(1) the names and addresses of the facility (including street address and directions from the nearest highway of the facility), the owner of the facility, the operator of the facility, the person or persons in charge required by §19.16 of this title (relating to Person in Charge), and the registered agent for service as required by OSPRA;

(2) a description of the facility, including:

(A) the date the facility began operations under the current owner or operator, whichever is earlier, the types of oil handled, the material safety data sheets for all the types of oil handled, the oil storage and transfer capacity, the throughput capacity, and the average daily throughput;

(B) the location of the facility by latitude and longitude, N.A.D. 27 or N.A.D. 83, or by state plane coordinates indicating zone or by Universal Transverse Mercator coordinates indicating zone and all environmentally sensitive areas that would be affected by a worst case discharge from the facility; and

(C) a map showing the protection strategies for environmentally sensitive areas at the facility;

(3) proof of financial responsibility as required by regulations either adopted or continued in effect under OPA, §1016 (33 United States Code §2716), if applicable to the facility;

(4) a copy of the applicant's current discharge prevention and response plan required by the *Federal Water Pollution Control Act*, §311(j) (33 United States Code §1321), including the spill prevention containment and countermeasure plan required by 40 *Code of Federal Regulations* §112.3, if applicable to the facility;

(5) either a discharge response contract or a basic ordering agreement with a discharge cleanup organization or other person or the terms of any such contract or agreement showing capability to respond to a worst case discharge at the facility, or proof that the applicant can independently so respond;

(6) an estimate of a worst case discharge for the facility, including the rationale used to establish the estimate;

(7) a list of both oil and hazardous substance discharges at the facility within the previous year; and

(8) a list of environmental permits and registration or identification numbers that have been obtained for the facility, including those for wastewater discharges, injection wells, and underground or aboveground storage tanks. Any other permit or license related to discharges into ground or surface waters of the State of Texas must be included.

§19.14 Applications for Major Facilities

All major facility applications must contain the following information:

(1) the names and addresses, including street address and directions from the nearest highway, of the facility, the owner of the facility, the operator of the facility, the person or persons in charge required by §19.16 of this title (relating to Person in Charge), and the registered agent for service as required by OSPRA;

(2) a description of the facility, including:

(A) the date the facility began operations under the current owner or operator, whichever is earlier, a list of all of the types of oil handled, the location of and the contact person for obtaining the material safety data sheets for all the types of oil handled, the oil storage and transfer capacity, the throughput capacity, and the average daily throughput; and

(B) the location of the facility by latitude and longitude, N.A.D. 27 or N.A.D. 83, or by state plane coordinates indicating zone or by Universal Transverse Mercator coordinates indicating zone and all environmentally sensitive areas that would be affected by a worst case discharge from the facility;

(C) the dimensions and oil capacity of the largest vessel docking or providing service at the facility and a description of the vessels under the operational control of the facility;

(D) a site plan of the facility certified (except that pipeline site plans need not be certified) by a registered professional engineer or registered public land surveyor showing:

(i) the location of all structures in which oil is handled and vessel and tank car or truck transfer areas;

(ii) vicinity maps showing vehicular access to the facility, pipelines to and from the facility, nearby environmentally sensitive areas, and nearby residential or other populous areas; and

(iii) drainage and diversion plans of the facility, such as sewers, outfalls, catchment or containment systems or basins, diversion systems, and all watercourses into which surface runoff from the facility drains (all of which may be shown on the site plan or maps); and

(E) the most recent available aerial photographs;

(3) proof of financial responsibility as required by regulations either adopted or continued in effect under OPA, §1016 (33 United States Code §2716), if applicable to the facility;

(4) the number and qualifications of personnel employed at the facility with discharge prevention and response duties;

(5) current discharge prevention or response training programs and requirements for the facility's personnel and for outside contractors working at the facility;

(6) a statement of the applicant's discharge prevention and response capability, including:

(A) a statement of whether the applicant's response capability will primarily be based on contracts or agreements with third parties or on the applicant's own personnel and equipment;

(B) a copy of the applicant's current discharge prevention and response plan required by the *Federal Water Pollution Control Act*, §311(j) (33 United States Code §1321), including the spill prevention containment and countermeasure plan required by 40 *Code of Federal Regulations* §112.3, if applicable to the facility;

(C) a description of the facility's preventive measures, including:

(i) leak detection and discharge prevention safety systems, devices, equipment, or procedures;

(ii) schedules, methods, and procedures for testing, maintaining, and inspecting storage tanks, pipelines, and other structures within or appurtenant to the facility that contain or handle oil;

(iii) schedules, methods, and procedures for conducting discharge response drills;

(D) a description of the facility's response plan, including:

(i) planned response actions, the chain of command, lines of communication, and procedure for notifying the General Land Office in the event of an unauthorized discharge;

(ii) response equipment and supplies available to respond to an unauthorized discharge at the facility, its ownership and location, and the time required to deploy it at the facility;

(iii) plans for sampling, testing, and measuring the volume of substances discharged;

(iv) plans for the recovery, storage, separation, transportation, and disposal of waste from an unauthorized discharge;

(v) the probable direction and rate of flow for unauthorized discharges at the facility;

(vi) plans and maps showing the strategy for protection of environmentally sensitive areas in the event of an unauthorized discharge;

(vii) plans for providing emergency medical treatment, site safety and security, fire prevention in the event of an unauthorized discharge and a site-specific safety plan (29 *Code of Federal Regulations* §1910.120); and

(viii) schedules, methods and procedures at the facility for maintaining and evaluating the readiness of facility-owned and facility-maintained response equipment and supplies. This subsection applies only to equipment owned or maintained by a facility;

(7) any discharge response or cleanup contracts or basic ordering agreements, or the terms of either, the applicant has with a discharge cleanup organization or other person;

(8) an estimate of a worst case discharge for the facility, including the rationale used to establish the estimate;

(9) a list of both oil and hazardous substance discharges at the facility within the previous year;

(10) a list of environmental permits and registration or identification numbers that have been obtained for the facility, including those for wastewater discharge, injection wells, and underground or aboveground storage tanks. Any other permit or license related to discharges into ground or surface waters of the State of Texas must be included;

(11) if applicable, a statement describing the applicant's participation in the National Preparedness for Response Exercise Program (PREP).

§19.15 Issuance & semi; Modification and Suspension of Facility Certificates

(a) Prior to issuance or denial of a certificate, the General Land Office (GLO) may require an applicant to submit additional information to resolve any substantial questions concerning the applicant's discharge prevention and response capability. The GLO may also require an applicant to develop and implement additional discharge prevention and response measures to achieve adequate discharge prevention and response capability.

(b) The GLO will issue certificates to those facilities that submit completed applications unless the preponderance of all evidence demonstrates the applicant lacks the capability to respond adequately to a worst case unauthorized discharge at the particular facility.

(c) If the GLO refuses to issue a certificate to an applicant, the applicant may request and is entitled to a hearing on the denial in the same manner provided for certificate suspensions under Chapter 21 of this title (relating to Oil Spill Prevention and Response Hearings Procedures).

(d) At least 30 days prior to issuance or renewal of a certificate for an oil or gas pipeline or facility used in the exploration, development, or production of oil or gas, the GLO will send the Railroad Commission of Texas a copy of the application for review and comment.

(e) The certificate will be issued for a term of five years. The GLO may issue certificates on terms and conditions appropriate to the facility or type of facility. All certificates are subject to review and modification by GLO in the event of a material change in spill response capability. All certificates are subject to suspension in the event the registrant violates OSPRA, rules or orders adopted or issued thereunder, or any requirement of the facility's certificate. A certificate may also be suspended if a registrant does not have a discharge response plan or does not have adequate containment, prevention, or cleanup ability. A certificate is void ab initio if the registrant knowingly submitted false information in the application for the certificate or in support of the application.

(f) Material changes in discharge prevention and response capability include, among other things:

(1) changes in the facility's oil storage or handling capacity, discharge response equipment, or its construction, operation, or maintenance that materially affect discharge prevention and response capability or the risk of an unauthorized discharge;

(2) closure of the facility or a change of the facility's person in charge, management, ownership, or key response personnel;

(3) a material change in the discharge cleanup organization listed as the primary basis of a facility's discharge response capability (see §19.20(h) of this title (relating to Certification of Discharge Cleanup Organizations));

(4) a determination by the GLO that the owner or operator responded inadequately to an unauthorized discharge at the facility; or

(5) promulgation of federal rules under OPA, substantial amendments to this chapter, or other changes in applicable law.

(g) Registrants must report changes in discharge prevention response capability. No application fee or other charge is assessed for the submission of new or changed information under this subsection.

(1) Except for subsection (f)(4) and (5) of this section, a registrant must inform the GLO in writing of a material change in response capability within 10 days of the change. Personnel changes must be reported within 30 days unless they affect spill response capability.

(2) Each registrant must report annually any changes in the information in its application for a certificate. The report must be in writing and must be filed by the anniversary of the date the certificate was issued.

(h) Issuance of a certificate does not estop the state in an action brought under OSPRA, or any other law, from alleging a violation of any such law, other than failure to have a certificate.

§19.16 Person in Charge

(a) Upon applying for a certificate, the applicant must designate a person or persons in charge of the facility for purposes of ensuring that General Land Office (GLO) is notified of unauthorized discharges at the facility and that the facility meets all other requirements of OSPRA. The designation must be by name and by job title.

(b) A facility must have a person in charge at the facility at all times the facility is normally attended by personnel. For those facilities or at those times at which personnel are not normally present, the facility must at all times have a person in charge on call and capable of travelling to the facility to respond to an actual or threatened unauthorized discharge. The person in charge must have the independent authority to deploy response equipment and personnel and to expend funds for response actions.

(c) It is the duty of the owner and the operator of the facility to inform the person in charge of the duties established under OSPRA and this chapter for persons in charge with respect to unauthorized discharge prevention and response.

SUBCHAPTER C SPILL RESPONSE

§19.31 Jurisdiction

The General Land Office (GLO) has jurisdiction over and will respond to any actual or threatened discharge that enters or threatens to enter coastal waters.

§19.32 Reporting an Unauthorized Discharge

(a) To report an actual or threatened unauthorized discharge, phone the General Land Office (GLO) at 1-800-832-8224. This line will be staffed at all times.

(b) The person in charge of the facility or vessel from which an unauthorized discharge emanates or threatens to emanate and the person responsible for the discharge both have the duty to immediately report the discharge to the GLO. Reporting by either of those persons or by an employee or agent of either shall satisfy the notice requirement.

(c) Immediately, for purposes of this section, means within one hour of the time the discharge is discovered. In determining immediate notification the GLO will consider the need for initial abatement, containment, and response actions, the accessibility of communication devices and the reasonableness of the person's efforts to immediately report, and whether the discharge could reasonably have been discovered earlier.

(d) Notification by any person who has been authorized or requested by the person in charge or by the responsible person to give notice of the discharge shall be imputed to the person who has the duty to report for purposes of determining compliance with this section.

(e) The notification, in order to be deemed complete, shall accurately describe the following:

(1) the substance and quantity actually discharged or potentially dischargeable and the rate of discharge;

(2) the time, location by latitude and longitude, N.A.D. 27 or N.A.D. 83, or by state plane coordinates indicating zone or by Universal Transverse Mercator coordinates indicating zone, if known, and the apparent cause of the actual or potential discharge;

(3) the size of the area actually impacted by the discharge and the area potentially impacted and whether or not any environmentally sensitive areas will be affected;

(4) the nature of any response actions undertaken and the identity of the person or discharge cleanup organization engaged or engaging in response activities;

(5) the name and title of the responsible person, the person in charge, and the person reporting the discharge; and

(6) the manner in which the responsible person and the facility or vessel involved in the actual or threatened discharge may be contacted.

(f) The duty to report is a continuing one where any material changes occur prior to the arrival of a state on-scene coordinator. Material changes include, but are not limited to, changes in the quantity, quality, or location of the discharge event. Both the responsible person and the person in charge have the duty to report material changes to the GLO.

(g) If an unauthorized discharge threatens to damage or pollute property other than that of the owner or operator or responsible person, the person in charge and the responsible person must make reasonable efforts to notify the owners of property threatened by the discharge. A reasonable effort to notify includes taking steps to identify and contact such owners within a time period that allows them to take measures to minimize damage to their property. In determining compliance with this requirement, the location of the discharge and the accessibility of ownership information will be considered.

(h) If the discharge immediately threatens public health, safety, or welfare, then the responsible person and the person in charge must notify the appropriate local health, fire, and law enforcement authorities.

§19.33 Response

(a) When the General Land Office (GLO) receives notice of an actual or threatened unauthorized discharge, the GLO will determine whether state response action is required. If state response action is required, the GLO will assess the discharge and determine whether further response actions should be initiated or required. If assessments of the discharge indicate it involves predominantly a hazardous substance, the GLO shall coordinate all response actions until the Texas Natural Resource Conservation Commission can assume responsibility over hazardous substance discharge response operations. A substance is predominantly a hazardous substance when analytical testing of a representative sample indicates the presence of more than 50% of a substance that is not oil as defined by OSPRA, and that is a hazardous substance as defined by the Texas Natural Resource Conservation Commission or its successor agency. Pending results of analytical tests of the substance, the determination of its predominant characteristics shall be made by investigating the source of the discharge, its physical properties, and its behavior in the environment. The GLO will notify the trustees of the actual or threatened unauthorized discharge.

(b) In response to any actual or threatened unauthorized discharge, the commissioner may designate a state on-scene coordinator to act on the commissioner's behalf at the site of the actual or threatened discharge.

(1) It is the duty of the state on-scene coordinator, in cooperation with the federal on-scene coordinator, to assess in detail all aspects of the actual or threatened unauthorized discharge, evaluate and direct the responsible person's response activities, initiate and direct other response activities, carry out orders of the commissioner, and report at regular intervals to the commissioner. The state on-scene coordinator has an ongoing duty to evaluate, assess, and direct all response activities in order to insure compliance with applicable contingency plans, discharge response plans, and to ensure public health and safety, and to minimize to the greatest extent possible property damage and damages to natural resources.

(2) In the event a discharge appears to be from a facility for the exploration, development, or production of oil or gas or from an oil or gas pipeline, a Railroad Commission designee shall act as the state on-scene coordinator for spills of 240 barrels or less. When the spill exceeds 240 barrels, it is the responsibility of the GLO to provide the state on-scene coordinator.

(c) The GLO will coordinate its response with the federal on-scene coordinator and will contact other state agencies who have jurisdiction over the unauthorized discharge.

(d) Based on the assessment of the state on-scene coordinator, the GLO will determine whether and where to establish an on-scene command post. The state on-scene command post will serve as the single point of communication and coordination for state oversight and coordination of response actions. The post will be staffed until response operations are declared complete.

(e) The GLO will utilize the Incident Command System for all spills where a state on-scene coordinator is appointed by the commissioner.

§19.34 Duties of Responsible Person

(a) In the event of an actual or threatened unauthorized discharge, it is the duty of the responsible person to immediately initiate response action, or to ensure that the person in charge will initiate response action. The responsible person is the owner or operator of a vessel or facility from which an unauthorized discharge of oil emanates or threatens to emanate. The person in charge is the person at the vessel or facility who is empowered by the responsible person to initiate response actions and to perform all actions necessary to prevent, abate, contain, and remove all pollution. The responsible person or the person in charge must inform the General Land Office (GLO) of the person's strategy for responding to the unauthorized discharge, including whether the facility's or vessel's discharge prevention and response plan will be adequate for abating, containing, and removing pollution or whether it appears that an adequate response to the discharge will require deviation from the plan. The response strategy and proposed deviations from the plan must be reported to the on-scene coordinator on a regular basis throughout response operations.

(b) The GLO may determine that the responsible person is unknown or appears unwilling or unable to respond adequately to the discharge, including reasonably foreseeable worst case scenarios of the discharge. The commissioner may delegate this determination to the state on-scene coordinator. In the event of such a determination the state on-scene coordinator may order the responsible person to take certain response actions. The state on-scene coordinator may also initiate response action by the state, either in addition to or in lieu of further response actions by the responsible person. As soon as possible after a determination of inadequate response, the state on-scene coordinator will notify the responsible person or the person acting for the responsible person of the inadequacy of response and inform the person of the intended corrective action. A determination that a responsible person appears unwilling or unable to respond adequately will be made by evaluating the resources committed to the response, the degree of cooperation with directions of the on-scene coordinator, the ability to commit further resources, and adherence to response and contingency plans.

(c) The responsible person or anyone acting on behalf of the responsible person must notify the state on-scene coordinator if the person intends not to comply with, or has not complied with, state response orders or actions. The GLO may determine the person has unreasonably failed to comply with state response actions if noncompliance is for any reason other than an objective and reasonable belief that compliance unavoidably conflicts with federal requirements or poses an unjustifiable risk to public safety or natural resources. Any failure to comply may be grounds for a determination of inadequate response under subsection (b) of this section.

(d) The responsible person must orally state the reasons for noncompliance with an order of the state on-scene coordinator and must give written justification for the refusal within 48 hours as required by OSPRA, §40.106.

(e) The responsible person is required to provide an emergency response plan consistent with 29 *Code of Federal Regulations* §1910.120 for the health and safety of spill response personnel at the spill response scene. In order to comply with the *National Contingency Plan*, responsible persons must ensure that contractors and others under their employ have an emergency response plan program for the health and safety of personnel responding during the spill response. Failure to provide an emergency response plan for the health and safety of responders will be considered a failure to adequately respond to a spill event.

(f) The responsible person is required to respond and operate in a manner consistent with the *National Contingency Plan* and any applicable area or local contingency plan.

(g) The GLO will utilize the Incident Command System for all spills where a state on-scene coordinator is appointed by the commissioner.

§19.35 Assistance

(a) Other than persons employed by the responsible person or certified discharge cleanup organizations under contract with the responsible person, or any person conducting initial emergency response assistance, no person shall conduct cleanup operations without the approval of the on-scene coordinator. Authorization may be given individually or blanket authorization may be given to any group or class of persons or organizations. The General Land Office (GLO) will give preference to those persons who are certified as discharge cleanup organizations and to trained and qualified personnel.

(b) Any person or discharge cleanup organization participating in response operations shall not receive or be eligible to receive compensation from the fund unless the participation was authorized by the GLO. A person or organization is entitled to a qualified immunity from liability for damages, response costs, or penalties only if acting pursuant to request of the on-scene coordinator, the responsible person, or in accord with the applicable contingency plan or response plan.

(c) The GLO may waive the prior authorization requirement only if the assistance rendered was consistent with applicable contingency plans, and response plans, and was effective, cost-efficient, reasonably necessary, and did not endanger life, property, or natural resources.

§19.36 Disposal

(a) Waste from unauthorized discharges must be disposed of only at sites that have all necessary permits to accept the type of waste discharged. Each responsible person or discharge cleanup organization removing waste shall inform the on-scene coordinator in writing of the name and location of the site where the waste will be disposed.

(b) All responsible persons and discharge cleanup organizations engaged in spill response operations shall minimize the generation of waste by utilizing techniques such as reusing sorbent pads, recycling recovered oil, recovering boom, and best available technologies.

(c) The responsible person must remove all waste generated from an unauthorized discharge of oil from the temporary staging area within 14 days of the completion of all response operations.

(d) When waste generated in connection with spill response activities is disposed of, the responsible person shall provide the on-scene coordinator with copies of documentation, such as manifests, run tickets, or invoices, identifying the waste hauler and the disposal facility to which such waste was delivered within 30 days of the completion of all response operations.

§19.37 Completion of Response

(a) The General Land Office (GLO) will consider the opinions of the designated trustees in determining whether response actions are complete.

(b) In addition to reporting an unauthorized discharge at the time it occurs, the responsible person must file a written report of any such discharge with the GLO within 30 days of the response actions being declared complete. The report must contain details of the information listed in §19.32(e) of this title (relating to Reporting an Unauthorized Discharge) and must state the known extent of the damages to and loss of real and personal property. The report must also contain a listing of known damages to natural resources. Reporting forms are available from the GLO.

§19.39 Waiver

If the commissioner determines that the application of any provision of this subchapter would impair the effective and expeditious abatement, containment, removal, cleanup, or remediation of an unauthorized discharge or pollution or damage from an unauthorized discharge, or unreasonably endanger public health, safety, or welfare, public or private property, or natural resources, the commissioner may waive that provision.

Emergency Management During Disasters

(Not available electronically)

Chemical Reference List

This page intentionally left blank.

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
(1,1'-Biphenyl)-4,4'diamine,3,3'dichloro-	*(see 3,3-Dichlorobenzidine)*				5002
(1,1'-Biphenyl)-4,4'diamine,3,3'dimethoxy-	119904	1	X	U091	5004
(1,1'Biphenyl)-4,4'-diamine,3,3'-dimethyl-	119937	1	X	U095	5006
1,1,1,2,2,2-Hexachloroethane	*(see Hexachloroethane)*				5748
1,1-Bis(4-chlorophenyl)-2,2-dichloroethane	72548	1		U060	2202
1,1-Bis(p-chlorophenyl)-2,2,2-trichloroethanol	115322	10	X		2152
1,1,1,2-Tetrachloroethane	630206	1		U208	5008
1,1,2,2-Tetrachloroethane	79345	100	X	U209	5008
1,1,2,2-Tetrachloroethene	*(see Ethene, 1,1,2,2-tetrachloro-)*			2079	
1,2,4,5-Tetrachlorobenzene	*(see Tetrachlorobenzene)*				6324
1,1,1-Trichloro-2,2-bis(p-methoxyphenyl)ethane	*(see Methoxychlor)*				2159
1,1,1-Trichloroethane	71556	1000	X	U226	2090
1,1,2-Trichloroethane	79005	1	X	U227	2090
1,2,3-Propanetriol	*(see Glycerine)*			2058	
1,2,3-Trihydroxypropane	*(see Glycerine)*			2058	
1,2,4-Trichlorobenzene	120821	100	X		5016
1,2:7,8-Dibenzopyrene	*(see Dibenzo[a,i]pyrene)*				5058
1,1-Dichloroethane	75343	1000		U076	5018
1,1-Dichloroethylene	75354	100	X	U078	2095
1,1-Dichloropropane	78999	1000			2039
1,1-Dimethylhydrazine	*(see Dimethylhydrazine)*		X	U098	5692
1,1-Methylenebis(4-isocyanatobenzene)	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
1,1'-Oxybis-ethane	*(see Ethane, 1,1'-oxybis-)*				5746
1,2-Benzanthracene, 7,12-dimethyl-	57976	1		U094	5022
1,2-Benzenedicarboxylic acid anhydride	85449	5000	X	U190	5024
1,2-Benzenedicarboxylic acid, diethyl ester	84662	1000	X	U088	5026
1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)]ester	117817	100	X	U028	5028
1,2-Benzenediol,4-[1-hydroxy-2-(methylamino)ethyl]-	51434	1000		P042	5030
1,2-Benzisothiazolin-3-one,1,1-dioxide, and salts	81072	1	X	U202	5032
1,2-Benzphenanthrene	218019	1		U050	5034
1,2-Butylene oxide	106887	100	X		5036
1,2-Dibromo-3-chloropropane	96128	1	X	U066	5038
1,2-Dibromoethane	106934	1	X	U067	5754
1,2-Dibromomethane	*(see Methylene bromide)*		X	U068	5982
1,2-Dichlorobenzene	*(see Dichlorobenzene, mixed)*		X	U020	2038
1,2-Dichloroethane	107062	100	X	U077	5040
1,2-Dichloroethanol acetate	*(see Ethanol, 1,2-dichloro-, acetate)*			2050	
1,2-Dichloroethylene	540590		X	U079	5042
1,2-Dichloropropane	78875	1000	X	U083	5044
1,2-Dihydro-3,6-pyridazinedione	123331	5000		U148	5046
1,2-Dihydroxypropane	*(see Polypropylene glycol)*			1091	
1,2-Dimethylhydrazine	540738	1		U099	5048
1,2-Diphenylhydrazine	122667	10	X	U109	5050
1,2-Ethanediylbiscarbamodithioic acid	111546	5000		U114	5052
1,2-Methylenedioxy-4-propenylbenzene	*(see Isosafrole)*	X	U141	5922	
1,2-Oxathiolane, 2,2-dioxide	*(see 1,3-Propane sultone)*		X	U193	5066
1,2-Propanediol	*(see Polypropylene glycol)*				1091
1,2-trans-Dichloroethylene	156605	1000		U079	5056
1,2:7,8-Dibenzopyrene *dibenz[A,1]pyrene*	189559	10	X	U064	5058
1,3-Benzenediol	108463	5000		U201	2185
1,3-Butadiene	106990	10	X		5422
1,3-Dichloropropane	142289	5000			5062
1,3-Dichloropropene	542756	100	X	U084	5064
1,3-Dimethylolurea	140954				2139
1,3-Propane sultone	1120714	10	X	U193	5066
1,4-Dichlorobenzene	*(see Benzene, 1,4-dichloro-)*		X	U072	2019
1,4-Diethylene dioxide	123911	1	X	U108	5068
1,4-Dioxane	*(see Hydroquinone)*		X	U108	5882
1,4-Naphthalenedione	130154	5000		U166	5070
1,4-Naphthaquinone	*(see 1,4-Naphthalenedione)*		X	U166	5070

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
1,5-Pentanedial	*(see Glutaraldehyde)*				6500
1,5-Pentanedione	*(see Glutaraldehyde)*				6500
1-Amino-2-methylanthraquinone	82280		X		5072
1-Amino-4-nitrobenzene	*(see Benzenamine, 4-nitro-)*				5356
1-Butanamine, N-butyl-N-nitroso-	924163	1	X	U172	5074
1-Butanol	71363	5000	X	U031	2023
1-Caprylene	*(see 1-Octene)*				----
1-Ethanol-2-thiol	*(see 2-Mercaptoethanol)*				----
1-Hexene	*(see Hexene)*				----
1-Hydroxy-3-Methylbenzene	*(see Cresol, m-)*	X	U052	2033	
1-Hydroxyoctane	*(see Octyl alcohol, N-)*				2077
1-Methyl-2-pyrrolidinone	*(see N-Methylpyrrolidinone)*				----
1-Methyl-2-pyrrolidone	*(see N-Methylpyrrolidinone)*				----
1-Methyl-5-pyrrolidinone	*(see N-Methylpyrrolidinone)*		X		----
1-Methylbutadiene	504609	100		U186	5078
1-Naphthylamine	134327	1	X	U167	5080
1-Octanol	*(see Octyl alcohol, N-)*				2077
1-Octene	++++++				----
1-Octylene	*(see 1-Octene)*				----
1-Phenylethanone	*(see Acetophenone)*				5258
1-Propanamine	107108	5000		U194	5082
1-Propanol, 2,3-dibromo-, phosphate (3:1)	126727	10	X	U235	5084
2,3,4,6-Tetrachlorophenol	58902	10		U212	5086
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016	1			5088
2,2,4-Trimethylpentane	540841	1000			2076
2,3,4-Trichlorophenol	15950660	10			2206
2,3,5-Trichlorophenol	933788	10			2206
2,3,6-Trichlorophenol	933755	10			2206
2,4,4-Trimethyl pentene	25167708				5090
2,4,5-T	*(see 2,4,5-Trichlorophenoxyacetic acid)*			U232	2200
2,4,5-Trichlorophenoxyacetic acid	93765	1000	X	U232	2200
2,4,5-T amines	6369966	5000			5094
2,4,5-T amines	6369977	5000			5094
2,4,5-T amines	2008460	5000			5094
2,4,5-T amines	3813147	5000			5094
2,4,5-T amines	1319728	5000			5094
2,4,5-T esters	93798	1000			2201
2,4,5-T esters	2545597	1000			2201
2,4,5-T esters	1928478	1000			2201
2,4,5-T esters	25168154	1000			2201
2,4,5-T esters	61792072	1000			2201
2,4,5-T salts	13560991	1000			5098
2,4,5-TP acid	93721	100		U233	5116
2,4,5-TP acid esters	32534955	100			5118
2,4,5-Trichlorophenol	95954	10	X		2206
2,4,6-Trichlorophenol	88062	10	X		2206
2,4,6-Trimethyl-aniline	*(see Aniline, 2,4,6-trimethyl-)*				5306
2,2-bis(p-chlorophenyl)-1,1-dichloroethylene	72559	1			5582
2,2-Dichloropropionic acid	75990	5000			5120
2,2-Dihydroxydiethyl ether	*(see Diethylene glycol)*				----
2,2'-(Nitrosoimino)bis ethanol	*(see Ethanol, 2,2'-(nitrosoimino)bis-)*			U173	2050
2,2'-Oxybisethanol	*(see Diethylene glycol)*				----
2,2'-Oxydiethanol	*(see Diethylene glycol)*				----
2,2'-Thiobis(4-chloro-6-methylphenol)	4418660	1			5122
2,2'-Thiobis(4,6-dichlorophenol)	97187	1			5124
2,3-Dichloropropene	78886	100	X		5126
2,4,-D Esters	25168267	100			2126
2,4-D Acid	94757	100		U240	2125
2,4-D Esters	1928616	100			2126
2,4-D Esters	94111	100	X		2126
2,4-D Esters	2971382	100	X		2126
2,4-D Esters	94804	100	X		2126

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
2,4-D Esters	1928387	100			2126
2,4-D Esters	1320189	100	X		2126
2,4-D Esters	94791	100			2126
2,4-D Esters	53467111	100			2126
2,4-D-Esters	1929733	100			2126
2,4-Diaminoanisole	615054		X		5146
2,4-Diaminoanisole sulfate	39156417		X		5148
2,4-Dichlorophenol	120832	100	X	U081	5150
2,4-Dimethylphenol	105679	100	X	U101	2211
2,4-Dinitrophenol	51285	10	X	P048	5152
2,4-Dinitrotoluene	*(see Dinitrotoluene, 2,4-)*		X	U105	5700
2,4-DTAP	*(see Butyl peroxide, tert-)*				----
2,5-Dinitrophenol	329715	10			5154
2,5-Furandione	108316	5000	X	U147	2157
2,6-Dichlorophenol	87650	100		U082	5156
2,6-Dimethyl-4-heptanone	*(see Diisobutyl ketone)*				----
2,6-Dimethyl-4-heptylphenol (o- and p-)	*(see Nonyl phenol (mixed isomers))*			----	
2,6-Dimethylheptan-4-one	*(see Diisobutyl ketone)*				----
2,6-Dinitrophenol	573568	10			5158
2,6-Dinitrotoluene	*(see Dinitrotoluene, 2,6-)*		X	U106	5702
2,6-Xylidine	87627	1	X		5160
2-(2-Ethoxyethoxy)ethanol	*(see Carbitol)*				----
2-Acetoaminofluorene	*(see Fluoren-2-amine)*				5162
2-Acetoxypropane	*(see Acetic acid isopropyl ester)*			----	
2-Acetylaminofluorene	*(see Acetamide, N-9H-fluoren-2-yl-)*		U005	5246	
2-Aminoanthraquinone	117793		X		5164
2-Aminoethanol	*(see Monoethanolamine)*				----
2-Butanone *(Methylethylketone or MEK)*	78933	5000	X	U159	2069
2-Butanone peroxide	1338234	10		U160	5168
2-Buten-1-ol	6117915				----
2-Butenol	*(see 2-Buten-1-ol)*				----
2-Butene, 1,4-dichloro-	764410	1	X	U074	5170
2-Butenyl alcohol	*(see 2-Buten-1-ol)*				----
2-Chloroacetophenone	532274	100	X		5172
2-Chloroethanesulfonyl chloride	1622328	500			5756
2-Chloroethyl vinyl ether	110758	1000		U042	5174
2-Chlorophenol	95578	100		U048	5176
2-Cresol	*(see Cresol, o-)*	X	U052	2033	
2-Ethoxyethanol	110805	1000	X		5178
2-Ethyl-1-hexanol	*(see 2-Ethylhexanol)*				----
2-Ethylhexacrylate	++++++				----
2-Ethylhexanol	104767				----
2-Ethylhexyl alcohol	*(see 2-Ethylhexanol)*				----
2-Fluorenamine	*(see Fluoren-2-amine)*				5162
2-Fluoreneamine	*(see Fluoren-2-amine)*				5162
2-Furancarboxaldehyde *(Furfural)*	98011	5000		U125	5180
2-Hydroxy-1-ethanethiol	*(see 2-Mercaptoethanol)*				----
2-Hydroxyethylamine	*(see Monoethanolamine)*				----
2-Hydroxyethyl mercaptan	*(see 2-Mercaptoethanol)*				----
2-ME	*(see 2-Mercaptoethanol)*				----
2-Mercaptoethanol	60242				----
2-Methoxyethanol	109864		X		5182
2-Methyl-1-propanol	*(see Isobutyl alcohol)*			U140	5898
2-Methyl-4-chlorophenoxyacetic acid *(MCPA)*	*(see (4-chloro-2-methylphenoxy)acetic acid))*				----
2-Methyl butylacrylate	97881				----
2-Methyl propanol	*(see Isobutyl alcohol)*			U140	5898
2-Methylpropyl alcohol	*(see Isobutyl alcohol)*			U140	5898
2-Naphthylamine	91598	10	X	U168	5184
2-Nitropropane	79469	10	X	U171	5186
2-Phenylphenol	90437		X		5188
2-Picoline	109068	5000	X	U191	5190
2-Propanol	*(see Isopropyl alcohol)*		X		5914

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
2-Propen-1-ol	*(see Propargyl alcohol)*			P102	2011
2-Propyl acetate	*(see Acetic acid isopropyl ester)*			----	
2-Thioethanol	*(see 2-Mercaptoethanol)*				----
3-(3,4-Dichlorophenyl)-1,1-dimethylurea *(Diuron)*	330541	100	X		2139
3,4,5-Trichlorophenol	609198	10			5192
3-(1-methylethyl)-phenol, methylcarbamate	64006	1			5194
3,3-Dichlorobenzidine	91941	1	X	U073	5002
3,4-Dichlorophenyl isocyanate	*(see Isocyanic acid,3,4-dichlorophenyl ester)*				5904
3,4-Dinitrotoluene	610399	10			5198
3,5-Dichloro-N-(1,1-dimethyl-2-propynyl)benzamide	23950585	5000	X	U192	5200
3-Chloroproprionitrile	542767	1000	X	P027	5202
3-Cresol	*(see Cresol, m-)*	X	U052	2033	
3-Methylphenol	*(see Cresol, m-)*	X	U052	2033	
3-Oxa-1,5-pentanediol	*(see Diethylene glycol)*				----
3-Oxapentane-1,5-diol	*(see Diethylene glycol)*				----
4,4'-Diaminodiphenyl ether	101804		X		5204
4,4'-Diisocyanatodiphenylmethane	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
4,4'-Diphenylmethane diisocyanate	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
4,4'-Isopropylidenediphenol	80057		X		5206
4,4'-Methylene-bis-(2-chloroaniline)	*(see Benzenamine, 4,4'-methylenebis(2-chloro-))*			5350	
4,4'-Methylenebis(N,N-dimethyl) benzenamine	101611		X		5208
4-4'-Methylenebis(phenyl isocyanate)	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
4,4'-Methylene dianiline	101779		X		5212
4-4'-Methylenediphenyl diisocyanate	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
4-4'-Methylenediphenyl isocyanate	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
4-4'-Methylenediphenylene isocyanate	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
4,4'-Thiodianiline	139651		X		5214
4,6-Dinitro-o-cresol	*(see Dinitrocresol)*		X	P047	5696
4,6-Dinitro-o-cyclohexylphenol	131895	100		P034	5216
4-(1-Methylethyl)phenol	*(see Isopropylphenol)*				----
4-Amino-1-methyl benzene *(p-Toluidine)*	106490	100		U353	5218
4-Aminoazobenzene	60093		X		2017
4-Aminobiphenyl	92671	1	X		5220
4-Amino-3-hydroxybiphenyl sulfate	73728822	1	X	P004	3000
4-Bromophenyl phenyl ether	*(see Benzene, 1-bromo-4-phenoxy-)*			U030	2018
(4-Chloro-2-methylphenoxy)acetic acid *(Methoxone or MCDA)*	94746		X		----
4-Chloro-m-cresol	59507	5000		U039	5224
4-Chloro-o-cresoxyacetic acid	*(see MCPA)*		X		----
4-Chloro-o-toloxyacetic acid	*(see MCPA)*		X		----
4-Chlorophenyl phenyl ether	7005723	5000			5226
4-Cresol	*(see Cresol, p-)*	X		2033	
4-Hydroxyaflatoxin B1	*(see Aflatoxin M1)*				7009
4-Nitraniline	*(see Benzenamine, 4-nitro-)*			P077	5356
4-Nitroaniline	*(see Benzenamine, 4-nitro-)*			P077	5356
4-Nitrobenzeneamine	*(see Benzenamine, 4-nitro-)*			P077	5356
4-Nitrobiphenyl	92933	10	X		5228
5-Nitro-o-anisidine	99592		X		5230
1080	*(see Sodium fluoroacetate)*			P058	5232
2M-4C	*(see MCPA)*		X		----
4K-2M	*(see MCPA)*		X		----

A

Absolute ethanol	*(see Ethyl alcohol)*				----
Acenaphthene	83329	100			5234
Acenaphthylene	208968	5000			5236
Acetaldehyde	75070	1000	X	U001	2001
Acetaldehyde, trichloro-	75876	5000		U034	5238
Acetamide	60355	100	X		5240
Acetamide, N-(4-ethoxyphenyl)- *(Phenactin)*	62442	100		U187	5242
Acetamide, N-(aminothioxomethyl)-	591082	1000		P002	5244
Acetamide, N-9H-fluoren-2-yl-	53963	1	X	U005	5246

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Acetene	*(see Ethylene)*		X		5774
Acetic acid	64197	5000			2101
Acetic acid-1-methylethyl ester	*(see Acetic acid isopropyl ester)*			----	
Acetic acid ammonium	*(see Ammonium acetate)*				3010
Acetic acid butyl ether	*(see Butyl acetate)*				3390
Acetic acid, ethyl ester	141786	5000		U112	5248
Acetic acid ethylene ether	*(see Vinyl acetate monomer)*		X		2094
Acetic acid hexyl ester	*(see Hexyl acetate)*				----
Acetic acid isopropyl ester	108214				----
Acetic acid, lead salt	301042	10		U144	3820
Acetic acid, thallium(I) salt	563688	100		U214	5252
Acetic aldehyde	*(see Acetaldehyde)*		X	U001	2001
Acetic anhydride	108247	5000			2002
Acetic ether	*(see Ethyl acetate)*			U112	2048
Acetone	67641	5000	X	U002	2003
Acetone cyanohydrin	75865	10	X	P069	2004
Acetone thiosemicarbazide	1752303	1			5254
Acetonitrile	75058	5000	X	U003	2005
Acetophenone	98862	5000		U004	5258
Acetylbenzene	*(see Acetophenone)*				5258
Acetyl bromide	506967	5000			2102
Acetyl chloride	75365	5000		U006	2006
Acetylene tetrachloride	*(see Tetrachloroethane)*				5260
Acetylenogen	*(see Calcium carbide)*				3450
Acetyl oxide	*(see Acetic anhydride)*				2002
Acid ammonium carbonate	*(see Ammonium bicarbonate)*				3030
Acid ammonium fluoride	*(see Ammonium bifluoride)*				3050
Acraldehyde	*(see Acrolein)*				2007
Acrolein	107028	1	X	P003	2007
Acrylaldehyde	*(see Acrolein)*				2007
Acrylamide	79061	5000	X	U007	5262
Acrylic acid	79107	5000	X	U008	2008
Acrylic aldehyde	*(see Acrolein)*				2007
Acrylonitrile	107131	100	X	U009	2009
Acrylyl chloride	814686	1			5264
Adipic acid	124049	5000			5266
Adiponitrile	111693	1			2010
Aether	*(see Ethyl ether)*		U117	5746	
Aflatoxicol H1	55446270				7009
Aflatoxin	1402682				7009
Aflatoxin B1	1162658				7009
Aflatoxin B1,2,3-dichloride	63976045				7009
Aflatoxin B2	7220817				7009
Aflatoxin G1	1165395				7009
Aflatoxin G2	7241987				7009
Aflatoxin M1	6795239				7009
Aflatoxin Q1	52819962				7009
Aflatoxin R_0	29611038				7009
Agritox	*(see MCPA)*				----
Agroxone	*(see MCPA)*				----
AIP	*(see Aluminum phosphide)*		X	P006	5278
Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-,L-	148823	1		U150	5268
Alcohol (also anhydrous and dehydrated)	*(see Ethyl alcohol)*				----
Alcohol C-8	*(see Octyl alcohol, N-)*				2077
Aldicarb	116063	1	X	P070	5270
Aldifen	*(see Dinitrophenol)*				2136
Aldrin	309002	1	X	P004	3000
Alfol 8	*(see Octyl alcohol, N-)*				2077
Allomaleic acid	*(see Fumaric acid)*				2147
Allyl alcohol	107186	100	X	P005	2011
Allyl chloride	107051	1000	X		2012
Allylamine	107119	1	X		5272

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Alpha,alpha-dimethylphenethylamine	*(see Dimethylphenethylamine, alpha,alpha-)*			P046	5678
Alpha-Endosulfan	*(see Endosulfan, alpha-)*				2142
Alpha-naphthlyamine	*(see 1-Naphthylamine)*		X	U167	5080
Alphos	*(see Aluminum phosphide)*				5278
Alum	*(see Aluminum ammonium sulfate, aluminum potassium sulfate, aluminum sulfate)*				2103
Aluminum (fume or dust)	7429905		X		5274
Aluminum ammonium sulfate	++++++				2103
Aluminum chloride	7446700				----
Aluminum oxide	1344281		X		5276
Aluminum oxide silicate	*(see Aluminum silicate)*				----
Aluminum monophosphide	*(see Aluminum phosphide)*				5278
Aluminum phosphide	20859738	100		P006	5278
Aluminum picrate	++++++				----
Aluminum potassium sulfate	++++++				2103
Aluminum silicate	1302767				----
Aluminum sulfate	10043013	5000			2103
Aluminum trichloride	*(see Aluminum chloride)*				----
Alvit	*(see Dieldrin)*				2134
Amchlor	*(see Ammonium chloride)*				3090
Aminobenzene	*(see Aniline)*	5000	X	U112	2017
Aminoethane	*(see Ethylamine)*			2163	
Aminoethyl alcohol, b-	*(see Monoethanolamine)*				----
Aminoethylethandiamine	*(see Diethylenetriamine)*				2042
Aminofluoren	*(see Fluoren-2-amine)*				5162
Aminonitrobenzene, p-	*(see Benzenamine, 4-nitro-)*				5356
Aminophen	*(see Aniline)*	5000	X	U112	2017
Aminopterin	54626	1			5280
Amiton	78535	1			5282
Amiton oxalate	3734972	1			5290
Amitrole	61825	10		U011	5292
Ammate	*(see Ammonium sulfamate)*				3170
Ammonia	7664417	100	X		2013
Ammoniated copper sulfate	*(see Cupric sulfate, ammoniated)*			3660	
Ammoniated cupric sulfate	*(see Cupric sulfate, ammoniated)*			3660	
Ammonium acetate	631618	5000			3010
Ammonium aminosulfate	*(see Ammonium sulfamate)*				3170
Ammonium aminoformate	*(see Ammonium carbamate)*				3070
Ammonium benzoate	1863634	5000			3020
Ammonium bicarbonate	1066337	5000			3030
Ammonium bichromate	7789095	10			3040
Ammonium bifluoride	1341497	100			3050
Ammonium bisulfite	10192300	5000			3060
Ammonium carbamate	1111780	5000			3070
Ammonium carbonate	506876	5000			3080
Ammonium chloride	12125029	5000			3090
Ammonium chloroplatinate	16919587				5294
Ammonium chromate	7788989	10			3100
Ammonium citrate, dibasic	3012655	5000			3110
Ammonium fluoborate	13826830	5000			3120
Ammonium fluoride	12125018	100			3130
Ammonium fluosilicate	*(see Ammonium silicofluoride)*				3160
Ammonium hydrogen carbonate	*(see Ammonium bicarbonate)*				3030
Ammonium hydrogen fluoride	*(see Ammonium bifluoride)*				3050
Ammonium hydroxide	1336216	1000			3140
Ammonium hyposulfite	*(see Ammonium thiosulfate)*				3220
Ammonium muriate	*(see Ammonium chloride)*				3090
Ammonium nickel sulfate	*(see Nickel ammonium sulfate)*				4010
Ammonium nitrate (solution)	6484522		X		5296
Ammonium oxalate	6009707	5000			3150
Ammonium oxalate	5972736	5000			3150
Ammonium oxalate	14258492	5000			3150

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Ammonium picrate	131748	10		P009	5298
Ammonium silicofluoride	16919190	1000			3160
Ammonium sulfamate	7773060	5000			3170
Ammonium sulfate (solution)	7783202		X		3171
Ammonium sulfide	12135761	100			3180
Ammonium sulfite	10196040	5000			3190
Ammonium sulfocyanate	*(see Ammonium thiocyanate)*				3210
Ammonium sulfocyanide	*(see Ammonium thiocyanate)*				3210
Ammonium tartrate	3164292	5000			3200
Ammonium tartrate	14307438	5000			3200
Ammonium thiocyanate	1762954	5000			3210
Ammonium thiosulfate	7783188	5000			3220
Ammonium vanadate	7803556	1000		P119	5300
Amphetamine	300629	1			5302
Amprolene	*(see Ethylene oxide)*		X	U115	5782
AMS	*(see Ammonium sulfamate)*				3170
Amyl acetate	628637	5000			2014
Amyl acetate, iso-	123922	5000			2014
Amyl acetate, sec-	626380	5000			2014
Amyl acetate, tert-	625161	5000			2014
Amylacetic ester	*(see Amyl acetate)*				2014
Amyl alcohol	123513				2016
Anesthetic ether	*(see Ethyl ether)*			5746	
Anhydrol	*(see Ethyl alcohol)*				----
Anhydrous aluminum chloride	*(see Aluminum chloride)*				----
Anhydrous hydrazine	*(see Hydrazine)*	X	U133	5870	
Anhydrous hydrobromic acid	*(see Hydrobromic acid)*				----
Anicon (Kombi or M)	*(see MCPA)*				----
Aniline	62533	5000	X	U012	2017
Aniline, 2,4,6-trimethyl-	88051	1			5306
Animal oil	++++++++				1070
Anisic acid, o-	*(see Methyl salicylate)*				----
Anisidine, o-	90040	100	X		5308
Anisidine, p-	104949		X		5308
Anisidine hydrochloride, o-	134292		X		5312
Anprolene	*(see Ethylene oxide)*				5782
Anproline	*(see Ethylene oxide)*				5782
Anthracene	120127	5000	X		5314
Antimonius oxide	*(see Antimony oxide)*				----
Antimony	7440360	5000	X		2105
Antimony fluoride	*(see Antimony trifluoride)*				3270
Antimony oxide	1327339				----
Antimony pentachloride	7647189	1000			3230
Antimony pentafluoride	7783702	1			3231
Antimony peroxide	*(see Antimony oxide)*				----
Antimony potassium tartrate	28300745	100			3240
Antimony sesquioxide	*(see Antimony oxide)*				----
Antimony tribromide	7789619	1000			3250
Antimony trichloride	10025919	1000			3260
Antimony trifluoride	7783564	1000			3270
Antimony trioxide	1309644	1000			3280
Antimony white	*(see Antimony oxide)*				----
Antimycin A_1	1397940	1			7009
ANTU	*(see N-(1-naphthyl)-2-thiourea)*				5316
APO	*(see Tris(1-aziridinyl)phosphine oxide*				5318
APV	*(see Carbitol Cellosolve)*				----
Aquacide	*(see Diquat)*				2137
Aqua fortis	*(see Nitric acid)*			2075	
Aqua regia	*(see Hydrochloric and Nitric acids)*			2060	
Aramite	++++++++				7018
Aroclor(s)	***(see also Polychlorinated biphenyls)***				**2173**
Aroclor 1016	12674112	1			2173

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Aroclor 1221	11104282	1			2173
Aroclor 1232	11141165	1			2173
Aroclor 1242	53469219	1			2173
Aroclor 1248	12672296	1			2173
Aroclor 1254	11097691	1			2173
Aroclor 1260	11096825	1			2173
Aroclor 1262	37324235				2173
Aroclor 1268	11100144				2173
Aroclor 2565	37324246				2173
Aroclor 4465	11120299				2173
Arsenic	7440382	1	X		2106
Arsenic acid	1327522	1		P010	3300
Arsenic acid	7778394	1		P010	3300
Arsenic chloride	*(see Arsenous trichloride)*				3310
Arsenic disulfide	1303328	1			3290
Arsenic oxide	*(See Arsenous oxide)*				3320
Arsenic pentoxide	1303282	1		P011	3300
Arsenic trichloride	*(see Arsenous trichloride)*				3310
Arsenic trioxide	*(Arsenous oxide)*			3320	
Arsenic trisulfide	1303339	1			3330
Arsenious acid	*(see Arsenous trichloride)*				3310
Arsenious chloride	*(see Arsenous trichloride)*				3310
Arsenious oxide	*(see Arsenous oxide)*				3320
Arsenious sulfide	*(see Arsenic trisulfide)*				3330
Arsenous chloride	*(see Arsenous trichloride)*				3310
Arsenous oxide	1327533	1		P012	3320
Arsenous trichloride	7784341	1			3310
Arsine	7784421	1			5320
Arsine, diethyl-	*(see Diethylarsine)*				5322
Asbestos *(friable)*	1332214	1	X		5324
Asphalt or other residual					
Asphalt or road oil	8052424				1061
Coal tar or pitch	65996794			U051	1062
Creosote	8001589	1	X	U051	1060
Auramine	*(see C.I. Solvent Yellow 34)*				5326
Australol	*(see Isopropylphenol)*				----
Azaserine	115026	1		U015	5328
Azinophos-methyl	86500	1			2148
Azinphos-ethyl	2642719	1			5330
Aziridine	*(see Ethyleneimine)*				5780
Azofix Red GG salt	*(see Benzenamine, 4-nitro-)*				5356
Azoic diazo component 37	*(see Benzenamine, 4-nitro-)*				5356

B

B-Selektonon M	*(see MCPA)*				----
Banana oil	*(see Amyl acetate)*				2014
Barium and compounds	7440393		X		5332
Barium cyanide	542621	10		P013	3340
Basudin	*(see Diazinon)*				2129
BEHP	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Benz[a]anthracene	56553	10		U018	5334
Benz[c]acridine	225514	100		U016	5336
Benz[j]aceanthrylene,1,2-dihydro-3-methyl-	56495	1		U157	5338
Benzal chloride	98873	5000	X	U017	5340
Benzamide	55210		X		5342
Benzenamine, 2-methyl-, hydrochloride	636215	100	X	U222	5344
Benzenamine, 2-methyl-5-nitro-	99558	1		U181	5346
Benzenamine, 3-(trifluoromethyl)-	98168	1			5348
Benzenamine, 4,4'-methylenebis(2-chloro-)	101144	1	X	U158	5350
Benzenamine, 4-chloro-	106478	1000		P024	5352
Benzenamine, 4-chloro-2-methyl-,hydrochloride	3165933	1		U049	5354

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Benzenamine, 4-nitro-	100016	5000		P077	5356
Benzenamine, N,N-dimethyl-4-phenylazo-	60117	10	X	U093	5358
Benzene	71432	10	X	U019	2018
Benzene, 1,2,4,5-tetrachloro-	95943	5000		U207	2019
Benzene, 1,2-dichloro-	95501	100	X	U070	2019
Benzene, 1,2-methylenedioxy-4-allyl-	94597	1	X	U203	2018
Benzene, 1,2-methylenedioxy-4-propenyl-	120581	1		U141	2018
Benzene, 1,2-methylenedioxy-4-propyl-	94586	1		U090	2018
Benzene, 1,3,5-trinitro-	99354	10		U234	2018
Benzene, 1,3-dichloro-	541731	100	X	U071	2019
Benzene, 1,4-dichloro-	106467	100	X	U072	2019
Benzene, 1-(chloromethyl)-4-nitro-	100141	1			2019
Benzene, 1-bromo-4-phenoxy-	101553	100		U030	2018
Benzene, 1-methyl-2,4-dinitro-	*(see Dinitrotoluene, 2,4-)*		X	U105	5700
Benzene, 1-methyl-2,6-dinitro-	*(see Dinitrotoluene, 2,6-)*		X	U106	5702
Benzene, 1-methylethyl-	98828	5000	X	U055	2018
Benzene, 2,4-diisocyanatomethyl-	26471625	100		U223	2018
Benzene, aminochloro-	++++++++	1000		P024	5510
Benzene, chloro-	108907	100	X	U037	2019
Benzene, dimethyl-	*(see Xylene)*				2096
Benzene, hexachloro	118741	1	X	U127	2019
Benzene, hexahydro-	*(see Cyclohexane)*				2035
Benzene, m-dimethyl-	*(see Xylene, m-)*			2096	
Benzene, methyl-	*(see Toluene)*				2089
Benzene, o-dimethyl-	*(see Xylene, o-)*			2096	
Benzene, p-dimethyl-	*(see Xylene, p-)*			2096	
Benzene, pentachloro-	*(see Pentachlorobenzene)*				6134
Benzene, pentachloronitro-	*(see Pentachloronitrobenzene)*				6130
Benzenearsonic acid	98055	1			5360
Benzene carbonyl chloride	*(see Benzoyl chloride)*				2109
Benzenecarboxylic acid	*(see Benzoic acid)*				2107
Benzene chloride	108907				2119
Benzene hexachloride	608731	1			5386
Benzenesulfonyl chloride	98099	100		U020	5362
Benzidine	92875	1	X	U021	5364
Benzimidazole, 4,5-dichloro-2-(trifluoromethyl)-	3615212	1			5366
Benzo[a]pyrene	50328		X	U022	5368
Benzo[ghi]perylene	191242	5000			5370
Benzo[j,k]fluorene	206440	100		U120	5372
Benzo[k]fluoranthene	207089	5000	X		5374
Benzoic acid	65850	5000			2107
Benzol	*(see Benzene)*				2018
Benzol[b]fluoranthene	205992	1			5376
Benzonitrile	100470	5000			3350
Benzoquinone, p-	106514	10	X	U197	5378
Benzotrichloride	98077	10	X	U023	5380
Benzoyl chloride	98884	1000	X		2109
Benzoyl methide	*(see Acetophenone)*				5258
Benzoyl peroxide	94360		X		5382
Benzyl chloride	100447	100	X	P028	2020
Benzyl cyanide	140294	1			5384
Beryllium	7440417	1	X	P015	2110
Beryllium chloride	7787475	1			3360
Beryllium fluoride	7787497	1			3370
Beryllium nitrate	7787555	1			3380
Beryllium nitrate	13597994	1			3380
Beta-Chloronaphthalene	*(see Chloronaphthalene, beta-)*			5490	
Beta-Endosulfan	*(see Endosulfan, beta-)*				2142
Beta-Naphthylamine	*(see 2-Naphthylamine)*		X	U168	5184
Betula oil	*(see Methyl salicylate)*				----
BHC	*(see Benzene hexachloride)*				5386
BHC, alpha-	319846	1			5386

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
BHC, beta-	319857	1			5386
BHC, delta	319868	1			5386
BHC, gamma	58899	1	X	U129	2154
BH MCPA	*(see (4-chloro-2-methylphenoxy) acetic acid)*				----
Bicarburretted hydrogen	*(see Ethylene)*				5774
Bicyclo[2.2.1]heptane-2-carbonitrile,5-chloro-6-((((methyl	15271417	1			5392
Biphenyl	92524	100	X		5394
Biphenyl oxide	*(see Diphenyl ether)*				----
Bis(1,4-Isocyanatophenyl)methane	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Bis(2-chloroethoxy) methane	111911	1000	X	U024	5396
Bis(2-chloroethyl) ether	*(see Dichloroethyl ether)*		X	U025	5636
Bis(2-chloroisopropyl) ether	108601	1000	X	U027	5398
Bis(2-ethylhexyl)-1,2-benzenedicarboxylate	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Bis(2-ethylhexyl) adipate	103231		X		5400
Bis(2-ethylhexyl) phthalate	117817				----
Bis(2-hydroxyethyl) ether	*(see Diethylene glycol)*				----
Bis(4-Isocyanatophenyl)methane	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Bis(chloromethyl) ether	*(see Chloromethyl ether)*				5522
Bis(chloromethyl) ketone	534076	1			5402
Bis(dimethylthiocarbamoyl)disulfide	137268	10		U244	5404
Bis(p-isocyanatophenyl)methane	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Bisoflex (81 or DOP)	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Bitoscanate	4044659	1			5406
Black phosphorus	*(see Phosphorus)*				2181
Bleach	*(see Hydrogen peroxide or Sodium hypochlorite)*			2062	
Boletic acid	*(see Fumaric acid)*				2147
Boracic acid	*(see Boric acid)*			----	
Bordermaster	*(see MCPA)*				----
Boric acid	10043353				----
Borofax	*(see Boric acid)*			----	
Boron trichloride	10294345	1	X		5408
Boron trifluoride	7637072	1	X		5410
Boron trifluoride compound with methyl ether (1:1)	353424	1			5412
Brecolane NDG	*(see Diethylene glycol)*				----
Bromadiolone	28772567	1			5414
Brominal (M and Plus)	*(see MCPA)*				----
Bromine	7726956	1	X		2027
Bromine trifluoride	7787715				----
Bromoacetone	598312	1000		P017	5416
Bromoform	75252	100	X	U225	5418
Bromomethane	*(see Methyl bromide)*		X	U029	5420
Brucine	357573	100	X	P018	2111
Butadiene	106990	10	X		5422
Butane, N-	106978	10000 per CAA		----	
Butanethiol, N-	109795				----
Butanoic acid, 4-[bis(2-chloroethyl)amino] benzene-	305033	1		U035	2026
Butanoic acid ethyl ester	*(see Ethyl butyrate)*				----
Butter of antimony	*(see Antimony chloride)*				3260
Butter of arsenic	*(see Arsenous chloride)*				3310
Butter of zinc	*(see Zinc chloride)*				4340
Butyl-2-methacrylate	*(see 2-Methyl butylacrylate)*				----
Butyl-2-methyl-2-propenoate	*(see 2-Methyl butylacrylate)*				----
Butyl acetate	123864	5000			3390
Butyl acetate, iso-	110190	5000			3390
Butyl acetate, sec-	105464	5000			3390
Butyl acetate, tert-	540885	5000			3390
Butyl acrylate	141322		X		5424
Butyl alcohol, sec-	78922		X		5426
Butyl alcohol, tert-	75650		X		5426
Butylamine, iso-	78819	1000			2112
Butylamine, sec-	513495	1000			2112
Butylamine, sec-	13952846	1000			2112

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Butylamine, tert-	75649	1000			2112
Butyl benzyl phthalate	85687	100			5430
Butyl ether	++++++++				2024
Butyl ethylene	*(see Hexene)*				----
Butyl isovalerate	109193				5432
Butyl mercaptan	*(see Butanethiol, N-)*				----
Butyl methacrylate	*(see 2-Methyl butylacrylate)*				----
Butyl peroxide, di-tert-	*(see Butyl peroxide, tert-)*				----
Butyl peroxide, tert-	110054				----
Butyl vinyl ether	111342				5434
Butylamine	109739	1000			5436
Butyraldehyde	123728		X		5438
Butyric acid	107926	5000			2026
Butyric acid, iso-	79312	5000			2026
Butyric ether	*(see Ethyl butyrate)*				----
C					
C.I. 37035	*(see Benzenamine, 4-nitro-)*				5356
C.I. Acid Blue 9, diammonium salt	2650182		X		5442
C.I. Acid Blue 9, disodium salt	3844459		X		5444
C.I. Acid Green 3	4680788		X		5446
C.I. Azoic diazo component 37	*(see Benzenamine, 4-nitro-)*				5356
C.I. Basic Green 1	633034				5448
C.I. Basic Green 4	569642		X		5450
C.I. Basic Red 1	989388		X		5452
C.I. Developer 17	*(see Benzenamine, 4-nitro-)*				5356
C.I. Direct Black 38	1937377		X		5454
C.I. Direct Blue 6	2602462		X		5456
C.I. Direct Brown 95	16071866		X		5458
C.I. Disperse Yellow 3	2832408		X		5460
C.I. Food Red 15	81889		X		5462
C.I. Food Red 5	3761533		X		5464
C.I. Pigment White 11	*(see Antimony oxide)*				----
C.I. Solvent Orange 7	3118976		X		5466
C.I. Solvent Yellow 14	842079		X		5468
C.I. Solvent Yellow 3	97563		X		5470
C.I. Solvent Yellow 34	492808	100	X	U014	5326
C.I. Vat Yellow 4	128665		X		5472
Cacodylic acid	75605	1		U136	5474
Cadmium	7440439	10	X		2113
Cadmium acetate	543908	10			3400
Cadmium bromide	7789426	10			3410
Cadmium chloride	10108642	10			3420
Cadmium oxide	1306190	1			5476
Cadmium stearate	2223930	1			5478
Calcium	7440702				2114
Calcium arsenate	7778441	1			3430
Calcium arsenite	52740166	1			3440
Calcium carbide	76207	10			3450
Calcium chromate	13765190	10		U032	3460
Calcium chrome yellow	*(see Calcium chromate)*				3460
Calcium cyanamide	156627	1000	X		5480
Calcium cyanide	592018	10		P021	3470
Calcium dodecylbenzene sulfonate	26264062	1000			3480
Calcium hydrate	*(see Calcium hydroxide)*				3490
Calcium hydroxide	1305620				3490
Calcium hypochlorite *(bleach)*	7778543	10			3500
Calcium oxide	*(see Lime)*				3510
Campheclor	*(see Toxaphene)*			2204	
Cantharidin	56257	1			5482
CapDytan	133062	10	X		2115
Caprolactain	105602	5000			----

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Capryl(ic) alcohol	*(see Octyl alcohol, N-)*				2077
Captan	133062	10	X		2115
Caradate 30	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Carbachol chloride	51832	1			5484
Carbamic acid, ethyl ester	51796	100	X	U238	5460
Carbamic acid, methyl-, O-(((2,4-dimethyl-1, 3-dithiolan-2-y	26419738	1			5460
Carbamic acid, methylnitroso-,ethyl ester	615532	1		U178	5460
Carbamide, N-ethyl-N-nitroso-	759739	1	X	U176	5462
Carbamide, N-methyl-N-nitroso-	684935	1	X	U177	5462
Carbamide, thio-	*(see Thiourea)*			5462	
Carbamimidoselenoic acid	*(see Selenourea)*			6260	
Carbamoyl chloride, dimethyl-	*(see Dimethylcarbamoyl chloride)*			5470	
Carbaryl	63252	100	X		2116
Carbide *(Calcium carbide)*	++++++++				3450
Carbitol cellosolve	111900				----
Carbofuran	1563662	10	X		5472
Carbolic acid	*(see Phenol)*				2080
Carbon bisulfide	*(see Carbon disulfide)*				2028
Carbon disulfide	75150	100	X	P022	202
Carbon oxyfluoride	353504	1000		U033	5474
Carbon tetrachloride	56235	10	X	U211	2029
Carbonyl chloride	*(see Phosgene)*			2175	
Carbonyl sulfide	463581	100	X		5476
Carbophenothion	786196	1			5478
Carvone	2244168				5480
Catechol	120809	100	X		5482
Caustic potash	*(see Potassium hydroxide)*				2179
Caustic soda	*(see Sodium hydroxide)*				2030
Cellosolve	*(see Carbitol cellosolve)*				
Celphide	*(see Aluminum phosphide)*				5278
Celphos	*(see Aluminum phosphide or Phosphine)*				5278
Ceramic fibre	*(see Aluminum silicate)*				----
Cerium [(3+) or (III)] nitrate	*(see Cerium nitrate)*				----
Cerium nitrate	10108733				----
Cerium trinitrate	*(see Cerium nitrate)*				----
Cerous nitrate	*(see Cerium nitrate)*				----
Chameleon mineral	*(see Potassium permanganate)*			2180	
Chinoline	*(see Quinoline)*			2184	
Chiptox	*(see MCPA)*				----
Chlophen	*(see Polychlorinated biphenyls)*			2173	
Chlorallylene	*(see Allyl chloride)*				2012
Chloramben	133904	100	X		5484
Chlorambucil	*(see Butanoic acid, 4-[bis(2-chloroethyl)amino] benzene-)*				2026
Chlordane	57749	1	X	U036	2117
Chlorextol	*(see Polychlorinated biphenyls)*			2173	
Chlorfenvinfos	470906	1			5486
Chlorinated Benzenes	*(see Benzene chloride) - No RQ*			2119	
Chlorinated Biphenyls	*(see Polychlorinated biphenyls)*			2173	
Chlorinated Diphenyls	*(see Polychlorinated biphenyls)*			2173	
Chlorinated Diphenylene	*(see Polychlorinated biphenyls)*			2173	
Chlorinated Ethanes	*(see Chloroethane) - No RQ*				5488
Chlorinated Naphthalene	*(see Chloronaphthalene) - No RQ*			5490	
Chlorinated Phenols	*(see Chlorophenol) - No RQ*				5492
Chlorinated fluorocarbon (Freon 113)	76131		X		5494
Chlorine	7782505	10	X		2118
Chlorine cyanide	506774	10			5496
Chlorine dioxide	10049044		X	P033	5498
Chlormephos	24934916	1			5500
Chlormequat chloride	999815	1			5502
Chlornaphazine	494031	100		U026	5504
Chloro-1,1-biphenyl	*(see Polychlorinated biphenyls)*			2173	

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Chloro, p-, m-cresol	*(see 4-chloro-m-cresol)*			U039	5224
Chloroacetaldehyde	107200	1000		P023	5506
Chloroacetic acid	79118	1	X		2036
Chloroalkyl Ethers	++++++++	*No RQ*			5508
Chloroaniline, p-	*(see Benzene, aminochloro, -)*			P024	5510
Chlorobenzene	*(see Benzene, chloro-)*		X	U037	2019
Chlorobenzilate	*(see Ethyl 4,4'-dichlorobenzilate)*		U038	5512	
Chloro biphenyl	*(see Polychlorinated biphenyls)*			2173	
Chlorodibromomethane	124481	100			5514
Chloroethane	75003	100	X		5488
Chloroethanol	107073	1			5516
Chloroethene	*(see Vinyl chloride)*		X	U043	5518
Chloroethyl chloroformate	627112	1			5520
Chloroethylene	*(see Vinyl chloride)*		X	U043	5518
Chloroethyl vinyl ether	*(see 2-Chloroethyl vinyl ether)*			U042	5174
Chloroform	67663	10	X	U044	2031
Chloroformyl chloride	*(see Phosgene)*			2175	
Chloromethane	74873	100	X	U045	2068
Chloromethyl ether	542881	10	X	P016	5522
Chloromethyl methyl ether	107302	10	X	U046	5524
Chloronaphthalene, beta- *(2-chloronaphthalene)*	91587	5000		U047	5490
Chlorophacinone	3691358	1			5526
Chlorophenol	25167800	*No RQ*			5492
Chlorophenyl chloride, p-	*(see Benzene, 1,4-dichloro-)*				2019
Chlorophenyl phenyl ether	*(see 4-Chlorophenyl phenyl ether)*			5226	
Chloroprene	126998	100	X		5528
Chloropropene, 3-	*(see Allyl chloride)*				2012
Chloroproprionitrile, 3-	*(see 3-Chloropropionitrile)*				5202
Chloropropylene, 3-	*(see Allyl chloride)*				2012
Chlorosulfonic acid	7790945	1000			2032
Chlorothalonil	1897456		X		5530
Chlorotoluene, alpha	*(see Benzyl chloride)*				2020
Chloroxuron	1982474	1			5532
Chlorpyrifos	2921882	1			2141
Chlorthiophos	21923239	1			5534
Chromic acetate	1066304	1000			3530
Chromic acid (solid)	7738945	10			3540
Chromic acid (solution)	11115745	10			3540
Chromic chloride	10025737	1			5536
Chromic sulfate	10101538	1000			3550
Chromium	7440473	5000	X		2120
Chromium trioxide	*(see Chromic acid)*				3540
Chromous chloride	10049055	1000			3560
Chrysene	*(see 1,2-Benzphenanthrene)*		X		5034
Chwastox	*(see MCPA)*				----
Cidex	*(see Glutaraldehyde)*				6500
Cinnamene	*(see Styrene)*				2086
Cinnamol	*(see Styrene)*				2086
Citric acid	+++++++++				3110
Clophen	*(see Polychlorinated biphenyls)*			2173	
Coal tar	*(see Asphalt or other residual)*				1062
Cobalt	7440484		X		7010
Cobalt 57	13981505				7010
Cobalt 58	13981389				7010
Cobalt 60	10198400				7010
Cobalt bromide	*(see Cobaltous bromide)*				3570
Cobalt formate	*(see Cobaltous formate)*				3580
Cobalt sulfamate	*(see Cobaltous sulfumate)*				3590
Cobalt carbonyl	10210681	1			5540
Cobalt, ((2,2'-(1,2-ethanediylbis(nitrilomethylidyne))bis(6	62207765	1			5542
Cobaltous bromide	7789437	1000			3570
Cobaltous formate	544183	1000			3580

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Cobaltous sulfamate	14017415	1000			3590
Coke Oven Emissions	+++++	1			7020
Colamine	*(see Monoethanolamine)*				----
Colchicine	64868	1			5544
Collunosol	*(see Trichlorophenol)*				2206
Compound 269	*(see Endrin)*				2143
Compound 889	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Copper	7440508	5000	X		2122
Copper and Compounds	***(see also CUPRIC)***				
Copper acetate	*(see Cupric acetate)*				3600
Copper acetoarsenite	*(see Paris Green)*				3610
Copper arsenite	*(see Copper orthoarsenite)*				5546
Copper chloride	*(see Cupric chloride)*				3620
Copper cyanide	544923	10		P029	5548
Copper nitrate	*(see Cupric nitrate)*				3630
Copper orthoarsenite	10290127				5546
Copper oxalate	*(see Cupric oxalate)*				3640
Copper sulfate	*(see Cupric sulfate)*				3650
Copper tartrate	*(see Cupric tartrate)*				3670
Cornox-M	*(see MCPA)*				----
Coumafuryl	117522				5550
Coumaphos	56724	10			2123
Coumatetralyl	5836293	1			5552
Creosote	*(see Asphalt or other residual)*		X	J051	1060
Cresidine, p-	120718		X		5554
Cresol(s) (mixed isomers)	1319773	100	X	U052	2033
Cresol, m-	108394	100	X	U052	2033
Cresol, o-	95487	100	X	U052	2033
Cresol, p-	106445	100	X	U052	2033
Cresylic acid	*(see Cresol)*				2033
Cresylic acid, m-	*(see Cresol, m-)*	X	U052	2033	
Cresylic acid, o-	*(see Cresol, o-)*			2033	
Cresylic acid, p-	*(see Cresol, p-)*	X	U052	2033	
Crimidine	535897	1			5556
Crotonaldehyde	4170303	100	X	U053	2034
Crotonaldehyde, (E)-	123739	100		U053	2034
Crotonyl alcohol	*(see 2-Buten-1-ol)*				----
Crotyl alcohol	*(see 2-Buten-1-ol)*				----
Crude Oils					
Light crude oil	8002059				1000
Heavy crude oil	++++++++				1001
OSC (original source of crude oil) oil	++++++++			1002	
Crystallized verdigris	*(see Cupric acetate)*				3600
Cumene	*(see Benzene, 1-methylethyl-)*		X		2018
Cumene hydroperoxide	80159	10	X	U096	5676
Cumenol, p-	*(see Isopropylphenol)*				----
Cupferron	135206		X		5558
Cupric acetate	142712	100			3600
Cupric acetoarsenite	*(see Paris Green)*				3610
Cupric arsenite	*(see Copper orthoarsenite)*				5546
Cupric chloride	7447394	10			3620
Cupric green	*(see Copper orthoarsenite)*				5546
Cupricin	*(see Copper cyanide)*				5548
Cupric nitrate	3251238	100			3630
Cupric oxalate	5893663	100			3640
Cupric sulfate	7758987	10			3650
Cupric sulfate ammoniated	10380297	100			3660
Cupric tartrate	815827	100			3670
Cuprous cyanide	*(see Copper cyanide)*				5548
Cyanides (soluble cyanide salts)	57125	10	X	P030	2124
Cyanite	*(see Aluminum silicate)*				----
Cyanobenzene	*(see Benzonitrile)*			3350	

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Cyanoethylene	*(see Acrylonitrile)*			2009	
Cyanogen	460195	100		P031	5560
Cyanogen bromide	506683	1000		U246	5562
Cyanogen chloride	*(see Chlorine cyanide)*			P033	5496
Cyanogen iodide	506785	1			5564
Cyanophos	2636262	1			5566
Cyanuric fluoride	675149	1			5568
Cyclohexane	110827	1000	X	U056	2035
Cyclohexanecarboxylic acid	16179445				2035
Cyclohexanone	108941	5000		U057	2035
Cyclohexatriene	*(see Benzene)*				2018
Cycloheximide	66819	1			5570
Cyclohexyl-4,6 dinitrophenol, 2-	*(see 4,6-Dinitro-o-cyclohexylphenol)*				5216
Cyclohexylamine	108918	1			5574
Cyclopentane	287923				5576
Cyclophosphamide	50180	10		U058	5578

D

D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-	*(see Streptozotocin)*				5580
D-Limonene	*(see Limonene, D-)*				----
DAF 68	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Daunomycin	20830813	1		U059	5584
DDD	*(see 1,1-bis(4-chlorophenyl)-2,2-dichloroethane)*			2202	
DDE	*(see 2,2-bis(p-chlorophenyl)-1,1-dichloroethylene)*			5582	
DD Soil fumigant	*(see Dichloropropane)*				2039
DDT	*(see Dichlorodiphenyltrichloroethane)*				2128
DDT and Metabolites	++++++++	*No RQ*			2128
DDT, Methoxy-	*(see Methoxychlor)*				2159
Deactivator E	*(see Diethylene glycol)*				----
Deactivator H	*(see Diethylene glycol)*				----
Decaborane(14)	17702419	1			5586
Decabromodiphenyl oxide	1163195		X		5590
Dechlorane-A-O	*(see Antimony oxide)*				----
Ded-Weed	*(see MCPA)*				----
DEG	*(see Diethylene glycol)*				----
DEHP	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Delicia	*(see Aluminum phosphide or Phosphine)*				5278
Demeton	8065483	1			5592
Demeton-S-methyl	919868	1			5594
Desmodur 44	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Detia Gas Ex-B	*(see Aluminum phosphide or Phosphine)*				5278
Developer P	*(see Benzenamine, 4-nitro-)*				5356
Dextrone	*(see Diquat)*				2137
Di-(2-ethylhexyl) orthophthalate	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Di-(2-ethylhexyl) phthalate	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Di-chloricide	*(see Benzene, 1,4-dichloro-)*				2019
Di-n-propylnitrosamine	621647	10	X	U111	5596
Dialifos	10311849	1			5598
Diallate	2303164	100	X	U062	5600
Diamide	*(see Hydrazine)*			5870	
Diamine	*(see Hydrazine)*			5870	
Diaminotoluene	823405	10		U221	5602
Diaminotoluene	95807	10	X	U221	5602
Diaminotoluene	496720	10			5602
Diaminotoluene	25376458	10	X	U221	5602
Diammonium citrate	*(see Ammonium citrate)*				3110
Diammonium salt	*(see Ammonium citrate)*				3110
Diantimony trioxide	*(see Antimony trioxide)*				3280
Diazinon	333415	1			2129
Diazitol	*(see Diazinon)*				2129

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Diazo Fast Red GG	*(see Benzenamine, 4-nitro-)*				5356
Diazomethane	334883	100	X		5610
Dibenz[a,h]anthracene	53703	1		U063	5612
Dibenzo[a,e]pyrene	192654		X		5614
Dibenzo[a,h]pyrene	189640		X		5614
Dibenzo[a,i]pyrene	*(see 1,2:7,8-Dibenzopyrene)*		X		5014
Dibenzofuran	132649	100	X		5620
Diborane	19287457	1			5622
Dibromomethane	*(see Methylene bromide)*		X	U068	5982
Dibutyl phthalate	84742	10	X	U069	5626
Dicamba	1918009	1000	X		2130
Dichlobenil	1194656	100			2131
Dichlone	117806	1			2132
Dichlorobenzalkonium chloride	8023538				5628
Dichlorobenzene (mixed)	25321226	100	X		5630
Dichlorobenzidine, 3,3-	*(see 3,3-Dichlorobenzidine)*				5196
Dichlorobenzol, p-	*(see Benzene, 1,4-dichloro-)*				2019
Dichlorobromomethane	75274	5000	X		5632
Dichlorodifluoromethane	75718	5000	X	U075	5634
Dichlorodiphenyltrichloroethane	50293	1		U061	2128
Dichloroethane	*(see 1,1- or 1,2- dichloroethane)*			5018	
Dichloroethylene	*(see 1,2-dichloroethylene)*				5042
Dichloroethyl ether	111444	1	X	U025	5636
Dichloromethane *(Methylene chloride)*	75092	1000	X	U080	5638
Dichloromethylphenylsilane	149746	1			5640
Dichloronaphthalene	*(see Chloronaphthalene, beta)*				5490
Dichloronaphthoquinone	*(see Dichlone)*				2132
Dichlorophenoxyacetic acid, 2,4-	*(see 2,4-D)*				2126
Dichlorophenylarsine	*(see Phenyldichloroarsine)*				5642
Dichloropropane	26638197	1000			2039
Dichloropropane - Dichloropropene (mixture)	8003198	100			2039
Dichloropropene	26952238	100			5644
Dichloropropene, 1,3-	*(see 1,3-Dichloropropene)*				5064
Dichloropropionic acid, 2,2-	*(see 2,2-Dichloropropionic acid)*			5120	
Dichlorovinyl dimethyl phosphate, 2,2-	*(see Dichlorvos)*			2133	
Dichlorvos	62737	10	X		2133
Dicofol	*(see Kelthane)*	10	X		2152
Dicol	*(see Diethylene glycol)*				----
Dicopur-M	*(see MCPA)*				----
Dicotex	*(see MCPA)*				----
Dicrotophos	141662	1			5646
Dieldrin	60571	1		P037	2134
Diepoxybutane	1464535	1	X	U085	5648
Diesel					
Light diesel oil	++++++++				1040
Heavy diesel oil	++++++++			1041	
Diesel fuel 1-D	++++++++				1040
Diesel fuel 2-D	++++++++				1040
Diesel fuel 4-D	++++++++			1041	
Diethanolamine	111422	100	X		2040
Diethyl	*(see Butane, N-)*			----	
Diethylamine	109897	1000			5650
Diethylarsine	692422	1		P038	5322
Diethylcarbamazine citrate	1642542	1			5652
Diethyl chlorophosphate	814493	1			5654
Diethylene glycol	111466				----
Diethylene glycol ethyl ether	*(see Carbitol)*				----
Diethylene glycol monoethyl ether	*(see Carbitol)*				----
Diethylenetriamine	111400				2042
Diethyl ether	*(see Ethyl ether)*			2043	
Diethyl oxide	*(see Ethyl ether)*			2043	
Diethyl-p-nitrophenyl phosphate	311455	100		P041	5656

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Diethyl-p-phenylenediamine	93050				5658
Diethyl phthalate	*(see 1,2-Benzenedicarboxylic acid,diethyl ester)*			5026	
Diethylstilbestrol	56531	1		U089	5662
Diethyl sulfate	64675	10	X		5664
Digitoxin	71636	1			5666
Diglycidyl ether	2238075	1			5668
Diglycol	*(see Diethylene glycol)*				----
Diglycol monoethyl ether	*(see Carbitol)*				----
Digoxin	20830755	1			5670
Dihydroaflatoxin B1	*(see Aflatoxin B2)*				7009
Dihydrooxirene	*(see Ethylene oxide)*				5782
Dihydroxydiethyl ether, (B,B'-)	*(see Diethylene glycol)*				----
Diisobutene	*(see 2,4,4-Trimethyl pentene)*				5090
Diisobutylene	*(see 2,4,4-Trimethyl pentene)*				5090
Diisobutyl ketone	108838				----
Diisopropylacetone,(s-)	*(see Diisobutyl ketone)*				----
Dimefox	115264	1			5672
Dimethicone 350	*(see Polydimethyl siloxane)*				----
Dimethoate	60515	10	X	P044	5674
Dimethoxy-DDT	72435	1	X	U247	2159
Dimethyl adipate	627930				----
Dimethylamine, anhydrous	124403	1000	X	U092	2044
Dimethylbenzylhydroperoxide, alpha,alpha-	*(see Cumene hydroperoxide)*				5676
Dimethylcarbamoyl chloride	79447	1	X	U097	5470
Dimethylcarbinol	*(see Isopropyl alcohol)*				5898
Dimethyldichlorosilane	75785	500	X		5690
Dimethylene oxide	*(see Ethylene oxide)*				5782
Dimethyl hexanedioate	*(see Dimethyl adipate)*				----
Dimethylhydrazine	57147	10	X	U098	5692
Dimethylphenethylamine, alpha,alpha-	122098	5000		P046	5678
Dimethylphenol, 2,4-	*(see 2,4-Dimethylphenol)*				2211
Dimethyl phosphorochloridothioate	2524030	1	X		5680
Dimethyl phthalate	131113	5000	X	U102	5682
Dimethyl sulfate	77781	100	X	U103	5684
Dimethyl sulfide	75183	1			5686
Dimethyl-p-phenylenediamine	99989	1			5688
Dimetilan	644644	1			5694
Dinitrobenzene (mixed isomers)	25154545	100			2135
Dinitrobenzene, m-	99650	100	X		2135
Dinitrobenzene, o-	528290	100	X		2135
Dinitrobenzene, p-	100254	100	X		2135
Dinitrocresol	534521	10	X	P047	5696
Dinitrophenol (solution)	25550587	10			2136
Dinitrophenylmethane	*(see Dinitrotoluene, liquid)*				5698
Dinitrotoluene (liquid, molten, or solid)	25321146	10			5698
Dinitrotoluene, 2,4-	121142	10	X	U105	5698
Dinitrotoluene, 2,6-	606202	100	X	U106	5702
Dinoseb	88857	1000	X	P020	5704
Dinoterb	1420071	1			5706
Dioctyl phthalate	117840	5000	X	U107	5708
Dioxane, 1,4-	*(see Hydroquinone)*		X	U108	5882
Dioxane, p-	*(see 1,4-Diethylene dioxide)*				5068
Dioxathion	78342	1			5712
Dioxine	*(see 2,3,7,8-Tetrachlorodibenzo-p-dioxin)*				5088
Dioxitol	*(see Carbitol)*				----
Dioxolane	646060				5714
Diphacinone	82666	1			5716
Diphenyl ether	101848				----
Diphenylhydrazine	*(see 1,2-Diphenylhydrazine) - No RQ*				5050
Diphenyl methane diisocyanate	101688		X		5948
Diphenyl oxide	*(see Diphenyl ether)*				----
Diphosphoramide, octamethyl-	152169	100		P085	5718

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Diphosgene	*(see Phosgene)*			2175	
Dipotassium dichloride	*(see Potassium chloride)*				----
Dipropylamine	142847	5000		U110	5720
Dipropyl methane	*(see Heptane)*				----
Dipterex	*(see Trichlorfon)*			2205	
Diquat	85007	1000			2137
Diquat	2764729	1000			2137
Dissolvant APV	*(see Diethylene glycol)*				----
Disthene	*(see Aluminum silicate)*				----
Disulfoton	298044	1		P039	2138
Disulfuric acid	*(see Sulfuric acid, fuming)*				2087
Dithiazanine iodide	514738	1			5724
Dithiobiuret	541537	100		P049	5726
Dithionic acid	*(see Sulfuric acid, fuming)*				2087
Diuron	330541	100			2139
DMDT	*(see Dimethoxy-DDT)*				2159
DMU	*(see 3-(3,4-dichlorophenyl)-1,1-dimethylurea or 1,3-Dimethylolurea)*				2139
DNTP	*(see Parathion)*			2172	
Dodecylbenzenesulfonic acid	27176870	1000			2140
DOP	*(see Bis(2-ethylhexyl)phthalate)*			5028	
Dowanol (DE)	*(see Carbitol)*				----
Dow Corning 346	*(see Polydimethyl siloxane)*				----
Dowicide 2 or 25	*(see 2,4,5-Trichlorophenol)*				2206
Dow MCP amine weed killer	*(see MCPA)*				----
Dracylic acid	*(see Benzoic acid)*				2107
Drinox	*(see Heptachlor)*			2149	
DTBP	*(see Butyl peroxide, tert-)*				----
DTMC	*(see 1,1-Bis(p-chlorophenyl)-2,2,2-trichloroethanol)*			2152	
Dupont insecticide 1179	*(see Methomyl)*			5998	
Dursban	*(see O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate)*				2141
Dymex	*(see Acetophenone)*				5258
Dytol M-83	*(see Octyl alcohol, N-)*				2077
E					
EDTA	*(see Ethylenediaminetetraacetic acid)*				3700
Elayl	*(see Ethylene)*				5774
Emcepan	*(see MCPA)*				----
Emery 5791	*(see 2-Mercaptoethanol)*				----
Emetine, dihydrochloride	316427	1			5730
Empal	*(see MCPA)*				----
Endosulfan	115297	1		P050	2142
Endosulfan, alpha-	959988	1			2142
Endosulfan, beta-	33213659	1			2142
Endosulfan sulfate	1031078	1			5732
Endothall	145733	1000		P088	5734
Endothion	2778043	1			5738
Endrin	72208	1		P051	2143
Endrin aldehyde	7421934	1			2143
Endrin and Metabolites	++++++++	*No RQ*			2143
Enseal	*(see Potassium chloride)*				----
ENT 24915	*(see Tris-(1-aziridinyl)phosphine oxide)*				5318
ENT 26263	*(see Ethylene oxide)*				5782
ENT 27341	*(see Methomyl)*			5998	
EO	*(see Ethylene oxide)*				5782
EPAL 8	*(see Octyl alcohol, N-)*				2077
Epichlorohydrin	106898	1000	X	U041	2047
EPN	*(see Ethoxy-4-nitrophenoxyphenylphosphine sulfide)*			5728	
Epoxyethane (or 1,2-)	*(see Ethylene oxide)*				5782
Ergocalciferol	50146	1			5740

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Ergoplast FDO	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Ergotamine tartrate	379793				5742
Ethanamine, N-ethyl-N-nitroso-	55185	1	X	U174	5744
Ethane, 1,1'-oxybis-	*(see Ethyl ether)*			2043	
Ethane, 1,1,1,2,2,2-hexachloro-	*(see Hexachloroethane)*				5748
Ethane, 1,1,1,2-tetrachloro-	*(see 1,1,1,2-Tetrachloroethane)*			5008	
Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)	*(see Methoxychlor)*				2159
Ethane, 1,1,2,2-tetrachloro-	*(see 1,1,2,2-Tetrachloroethane)*			5008	
Ethane, 1,1,2-trichloro-	*(see 1,1,2-Trichloroethane)*				2090
Ethane, 1,2-dibromo-	*(see 1,2-Dibromoethane)*				5754
Ethanesulfonyl chloride, 2-chloro-	*(see 2-Chloroethanesulfonyl chloride)*				5756
Ethanethioamide	62555	1	X	U218	5758
Ethanol	*(see Ethyl alcohol)*				----
Ethanol, 1,2-dichloro-, acetate	10140871	1			2050
Ethanol, 2,2'-(nitrosoimino)bis-	1116547	1		U173	2050
Ethanolamine	*(see Monoethanolamine)*				----
Ethenamine, N-methyl-N-nitroso-	4549400	1	X	P084	5760
Ethene	*(see Ethylene)*				5774
Ethene, 1,1,2,2-tetrachloro-	127184	1	X	U210	2079
Ethene, chloro-	*(see Vinyl chloride)*				5518
Ethene oxide	*(see Ethylene oxide)*				5782
Ether	*(see Ethyl ether)*			5746	
Ethion	563122	10			2144
Ethoprophos	13194484	1	X		5766
Ethoxy diglycol	*(see Carbitol)*				----
Ethoxyethane	*(see Ethyl ether)*			5746	
Ethoxy-4-nitrophenoxyphenylphosphine sulfide	2104645	1			5728
Ethyl 4,4'-dichlorobenzilate	510156	1	X	U038	5512
Ethyl acetate	141786	5000		U112	2048
Ethylacetic acid	*(see Butyric acid)*			2026	
Ethyl acrylate	140885	1000	X	U113	2049
Ethyl alcohol	64175				----
Ethylamine	*(see Monoethylamine)*				2163
Ethylbenzene	100414	1000	X		2145
Ethylbis(2-chloroethyl)amine	538078	1			5768
Ethyl butanoate	*(see Ethyl butyrate)*				----
Ethyl butyrate	105544				----
Ethyl carbamate	*(see Carbamic acid, ethyl ester)*			5486	
Ethyl carbitol	*(see Carbitol)*				----
Ethyl chloroformate	541413		X		5770
Ethyl cyanide	*(see Propionitrile)*				5772
Ethyl diethylene glycol	*(see Carbitol)*				----
Ethylene (liquid)	74851		X		5774
Ethylene chloride	*(see 1,2-Dichloroethane)*				5040
Ethylenediamine	107153	5000			2052
Ethylenediaminetetraacetic acid (EDTA)	60004	5000			3700
Ethylene dibromide	*(see 1,2-Dibromoethane)*				5754
Ethylene dichloride	*(see 1,2-Dichloroethane)*				5040
Ethylene diglycol	*(see Diethylene glycol)*				----
Ethylene diglycol monoethyl ether	*(see Carbitol)*				----
Ethylene fluorohydrin	371620	1			5778
Ethylene glycol	107211	5000	X		2053
Ethyleneimine	151564	1	X	P084	5780
Ethylene oxide	75218	10	X	U115	5782
Ethylenethiourea	96457	1	X	U116	5784
Ethyl ether	60297	100		U117	5746
Ethylformic acid	*(see Phosphorus)*				2181
Ethylhexyl alcohol, 2-	*(see 2-Ethylhexanol)*				----
Ethylhexyl phthalate, (or 2-)	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Ethyl hydrate	*(see Ethyl alcohol)*				----
Ethyl hydroxide	*(see Ethyl alcohol)*				----
Ethylmercuric phosphate	2235258				5786

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Ethyl methacrylate	97632	1000		U118	5788
Ethyl methanesulfonate	62500	1		U119	5790
Ethylmethylene	*(see Ethion)*				2144
Ethylolamine	*(see Monoethanolamine)*				----
Ethyl thiocyanate	542905	1			5792
Eviplast (80 or 81)	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Evola	*(see Benzene, 1,4-dichloro-)*				2019
F					
Famphur	52857	1000	X	P097	5794
Fast Red 2G salt	*(see Benzenamine, 4-nitro-)*				5356
Fast Red Base GG	*(see Benzenamine, 4-nitro-)*				5356
Fenamiphos	22224926	1			5796
Fenitrothion	122145	1			5798
Fensulfothion	115902	1			5800
Ferric ammonium citrate	1185575	1000			3710
Ferric ammonium oxalate	2944674	1000			3720
Ferric ammonium oxalate	55488874	1000			3720
Ferric chloride	7705080	1000			3730
Ferric dextran	9004664	5000		U139	5802
Ferric fluoride	7783508	100			3740
Ferric nitrate	10421484	1000			3750
Ferric persulfate	*(see Ferric sulfate)*				3760
Ferris sesquisulfate	*(see Ferric sulfate)*				3760
Ferric sulfate	10028225	1000			3760
Ferric tersulfate	*(see Ferric sulfate)*				3760
Ferrous ammonium sulfate	10045893	1000			3770
Ferrous chloride	7758943	100			3780
Ferrous sulfate	7720787	1000			3790
Ferrous sulfate	7782630	1000			3790
Fleximel	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Flexol (plasticizer) DOP	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Flowers of antimony	*(see Antimony)*				2105
Fluenetil	4301502	1			5804
Fluohydric acid	*(see Hydrofluoric acid)*				2061
Fluometuron	2164172		X		5806
Fluoranthene	*(see Benzo[j,k]fluorene)*				5372
Fluoren-2-amine	153786				5162
Fluorene	86737	5000			5810
Fluorine	7782414	10		P056	2146
Fluoroacetamide	640197	100		P057	5812
Fluoroacetic acid	144490	1			5814
Fluoroacetyl chloride	359068	1			5816
Fluorouracil	51218	1			5818
Fonofos	944229	1			5820
Formagene	*(see Paraformaldehyde)*				2171
Formaldehyde	50000	100	X	U122	2055
Formaldehyde cyanohydrin	107164	1			5822
Formalin	*(see Formaldehyde)*				2055
Formdimethylamide	++++++++				2045
Formetanate hydrochloride	23422539	1			5824
Formic acid	64186	5000		U123	2056
Formothion	2540821	1			5826
Formparanate	17702577	1			5828
Fosthietan	21548323	1			5830
Freon 113	*(see Chlorinated fluorocarbon)*				5494
Fuberidazole	3878191	1			5832
Fuel oils (distillate)					
Fuel oil 1	70892103				1022
Fuel oil 2	68476302				1022
Fuel oil 4	68476313				1050

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Fuel oil 5	++++++++			1051	
Fuel oil 6	68553004				1052
Fulminic acid, mercury(II)salt	628864	10		P065	5834
Fumaric acid	110178	5000			2147
Fumigrain	*(see Acrylonitrile)*			2009	
Fuming sulfuric acid	*(see Sulfuric acid, fuming)*				2087
Fumitoxin	*(see Aluminum phosphide)*				5278
Furaldehyde, 2-	*(see Furfural)*				2057
Furan	110009	100		U124	5836
Furandione, 2,5-	*(see 2,5-Furandione)*				2157
Furan, tetrahydro-	109999	1000		U213	5838
Furfural	980101	5000			2057
G					
Galena	*(see Lead sulfide)*				3910
Gallium trichloride	13450903	500			5840
Gamma-benzene hexachloride	*(see Lindane)*				2154
Gamma-BHC	*(see Lindane)*				2154
Gasolines					
Natural (casing head) gasoline	++++++++				1010
Automotive or aviation gasoline	8006619				1011
Automotive Unleaded gasoline	++++++++				1012
Gaultheria oil, artificial	*(see Methyl salicylate)*				----
Geblin	*(see Calcium chromate)*				3460
Geon	*(see Polydimethyl siloxane)*				----
Geranium crystals	*(see Diphenyl ether)*				----
Glacial acetic acid	*(see Acetic acid)*			2101	
Gum	*(see Polydimethyl siloxane)*				----
Glutaral	*(see Glutaraldehyde)*				6500
Glutaraldehyde	111308				6500
Glutardialdehyde	*(see Glutaraldehyde)*				----
Glutaric dialdehyde	*(see Glutaraldehyde)*				----
Glycerine	56817				2058
Glycidylaldehyde	765334	1		U126	5842
Glycinol	*(see Monoethanolamine)*				----
Glycol	*(see Ethylene glycol)*				2053
Glycol ether	*(see Diethylene glycol)*				----
Glycol ethyl ether	*(see Diethylene glycol)*				----
Glycols, Polyethylene mono(1,1,3,3-tetramethylbutyl)phenyl)ether	9036195				5844
Glycols, Polyethylene mono (trimethylnonyl)	9008575				5845
Glycols, Polyethylenepolypropylene	9003116				5846
Glycols, Polyethylenepolypropylene, monobutyl ether (nonionic)	9038953				5847
Glycyl alcohol	*(see Glycerine)*			2058	
Good-rite GP264	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Green vitrol	*(see Ferrous sulfate)*				3790
Guanidine, N-nitroso-N-methyl-N'-nitro-	70257	10		U163	5848
Gusathion	*(see Guthion)*				2148
Guthion	86500	1			2148
H					
Hatcol DOP	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Havidote	*(see Ethylenediamine tetraacetic acid)*				3700
Hedapur M 52	*(see MCPA)*				----
Heplagran	*(see Heptachlor)*			2149	
Heptachlor	76448	1	X	P059	2149
Heptachlor epoxide	1024573	1			2149
Heptane (or n-)	142825				----
Heptyl carbinol	*(see Octyl alcohol, N-)*				2077
Heptyl hydride	*(see Heptane)*				----
Herbicide M	*(see MCPA)*				----
Hercoflex 260	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Hexachlorobenzene	*(see Benzene, hexachloro)*				2019
Hexachloro-1,3-butadiene	87683	1	X	U128	5850
Hexachlorocyclohexane	*(see Lindane)*				2154
Hexachlorocyclopentadiene	77474	10	X	U130	5852
Hexachloronaphthalene	1335871		X		5854
Hexachlorophene	70304	100	X	U132	5856
Hexachloropropene	1888717	1000		U243	5860
Hexachloroethane	67721	1	X	U131	5748
Hexaethyl tetraphosphate	757584	100		P062	5864
Hexahydrobenzene	*(see Cyclohexane)*				2035
Hexahydrobenzoic acid	*(See Cyclohexanecarboxylic acid)*			2035	
Hexamethylenediamine, N,N'-dibutyl-	4835114	1			5866
Hexamethylphosphoramide	680319	1	X		5868
Hexanaphthene	*(see Cyclohexane)*		X		2035
Hexane	*(see N-Hexane)*			2059	
Hexene	592416				----
Hexyl acetate (or n- or 1-)	142927				----
Hexylene	*(see Hexene)*				----
Hexyl ethanoate	*(see Hexyl acetate)*				----
HHDN	*(see Aldrin or 4-amino-3-hydroxybiphenyl sulfate)*			3000	
Hormotuho	*(see MCPA)*				----
Hycar	*(see Polydimethyl siloxane)*				----
Hydrated flaked lime	*(see Calcium hydroxide)*				3490
Hydrazine	302012	1	X	U133	5870
Hydrazine sulfate	10034932		X		5872
Hydrazobenzene	*(see 1,2-Diphenylhydrazine)*				5050
Hydrobenzoic acid methyl ester, o-	*(see Methyl salicylate)*				----
Hydrobromic acid	10035106				----
Hydrochloric acid	7647010	5000	X		2060
Hydrocyanic acid	74908	10	X	P063	3800
Hydrofluoric acid	*(see Hydrogen fluoride)*				2061
Hydrogen bromide	*(see Hydrobromic acid)*				----
Hydrogen chloride	*(see Hydrochloric acid)*		X		2060
Hydrogen cyanide	*(see Hydrocyanic acid)*				3800
Hydrogen fluoride	7664393	100	X	U134	2061
Hydrogen peroxide	7722841	1			2062
Hydrogen phosphide	*(see Phosphine)*			6170	
Hydrogen selenide	7783075	1			5878
Hydrogen sulfide	7783064	100	X	U135	5880
Hydroquinone	123319	1	X	U108	5882
Hydrosulfuric acid	7783064	100		U135	5884
Hydrowet	*(see Glycols, Polytethylenepolypropylene)*				5846
Hydroxybenzene	*(see Phenol)*				2080
Hydroxydimethylbenzene	*(see Xylenol)*				2211
Hydroxyethylamine, b-	*(see Monoethanolamine)*				----
Hydroxylamine	7803498				2150
Hydroxy No. 253	*(see Nonyl phenol (mixed isomers))*			----	
Hydroxyoctane, 1-	*(see Octyl alcohol, N-)*				2077
Hydroxytoluene	*(see Cresol)*				2033
Hydroxytoluene, m-	*(see Cresol, m-)*	X	U052	2033	
Hylene M50	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Hypnone	*(see Acetophenone)*				5258

I

Igepal CA	*(see Glycols, Polyethylene, Mono(1,1,3,3-tetramethylbutyl)phenyl) Ether)*			5844	
Indeno(1,2,3-cd)pyrene	193395	100	X	U137	5886
Indomethacin	53861				5888
Indomethane	74884	1	X	U138	5890
Iridium tetrachloride	10025975				5892
Iron	++++++++				2151

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Iron ammonium sulfate	*(see Ferrous ammonium sulfate)*			3770	
Iron chloride	*(see Ferrous chloride)*				3780
Iron dextran	*(see Ferric dextran)*				5802
Iron dichloride	*(see Ferrous chloride)*				3780
Iron nitrate	*(see Ferric nitrate)*				3750
Iron, pentacarbonyl-	13463406	1	X		5894
Iron protochloride	*(see Ferrous chloride)*				3780
Iron protosulfate	*(see Ferrous sulfate)*				3790
Iron sulfate	*(see Ferrous sulfate)*				3790
Iron trichloride	*(see Ferric chloride)*				3730
Iron vitriol	*(see Ferrous sulfate)*				3790
Isobenzan	297789	1			5896
Isobutanol	*(see Isobutyl alcohol)*			U140	5898
Isobutyl alcohol	78831	5000		U140	5898
Isobutyl ketone	*(see Diisobutyl ketone)*				----
Isobutyraldehyde	78842		X		5900
Isobutyronitrile	78820	1			5902
Isocyanic acid, 3,4-dichlorophenyl ester	102363	1			5904
Isodrin	465736	1	X	P060	5906
Isofluorphate	55914	100		P043	5908
Isohol	*(see Isopropyl alcohol)*				5898
Isonate	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Iso-octane	*(see 2,2,4-Trimethylpentane)*				2076
Isophorone	78591	5000			5910
Isophorone diisocyanate	4098719	1	X		5912
Isoprene	78795	100			2063
Isopropanol	*(see Isopropyl alcohol)*				5898
Isopropanolamine dodecylbenzene sulfonate	42504461	1000			3810
Isopropyl acetate	*(see Acetic acid isopropyl ester)*			----	
Isopropyl alcohol (mfg.-strong acid processes)	67630		X		5898
Isopropylbiphenyl	25640782				----
Isopropylcarbinol	*(see Isobutyl alcohol)*				5898
Isopropyl chloroformate	108236	1			5916
Isopropyldiphenyl	*(see Isopropylbiphenyl)*				----
Isopropyl formate	625558	1			5918
Isopropylmethylpyrazolyl dimethylcarbamate	119380	1			5920
Isopropylphenol	99898				----
Isosafrole	120581	100	X	U141	5922
Isovalerone	*(see Diisobutyl ketone)*				----

J

Jet Fuels					
JP-1	++++++++				1020
JP-2	*(see Kerosene)*			1021	
JP-3	++++++++				1020
JP-4	50815004				1020
JP-5	++++++++				1020

K

K-Lor	*(see Potassium chloride)*				----
Kalitabs	*(see Potassium chloride)*				----
Kaneclors	***(see Polychlorinated biphenyls)***			**2173**	
Kanechlor 300	*(see Polychlorinated biphenyls)*			2173	
Kanechlor 400	*(see Polychlorinated biphenyls)*			2173	
Kanechlor 500	*(see Polychlorinated biphenyls)*			2173	
KC-500	*(see Polychlorinated biphenyls)*			2173	
Kelthane	115322	10	X		2152
Kepone	143500	1		U142	5924
Kerosene	++++++++				1021
Ketone methyl phenyl	*(see Acetophenone)*				5258
Kilsem	*(see MCPA)*				----

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Kodaflex DOP	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Krezone	*(see MCPA)*				----
Kyanite	*(see Aluminum silicate)*				----
Kyanol	*(see Aniline)*				2017
L					
Lactonitrile	78977	1			5926
Lannate L	*(see Methomyl)*			5998	
Lasiocarpine	303344	10		U143	5928
Latex	*(see Polydimethyl siloxane)*				----
Lead	7439921	10	X		2153
Lead acetate	*(see Acetic acid, lead salt)*			U144	3820
Lead arsenate	7645252	1			3830
Lead arsenate	10102484	1			3830
Lead arsenate	7784409	1			3830
Lead chloride	7758954	10			3840
Lead difluoride	*(see Lead fluoride)*				3860
Lead fluoborate	13814965	10			3850
Lead fluoride	7783462	10			3860
Lead iodide	10101630	10			3870
Lead nitrate	10099748	10			3380
Lead phosphate	7446277	10		U145	5930
Lead stearate	1072351	10			3890
Lead stearate	7428480	10			3890
Lead stearate	56189094	10			3890
Lead stearate	52652592	10			3890
Lead subacetate	1335326	10		U146	5932
Lead sulfate	7446142	10			3900
Lead sulfate	15739807	10			3900
Lead sulfide	1314870	10			3910
Lead sulfocyanate	*(see Lead thiocyanate)*				3920
Lead, tetraethyl (TEL)	*(see Tetraethyl lead)*				2088
Lead thiocyanate	592870	10			3920
Legumex DB	*(see MCPA)*				----
Leptophos	21609905	1			5934
Leucol	*(see Quinoline)*			2184	
Leucoline	*(see Quinoline)*			2184	
Leuna M	*(see MCPA)*				----
Lewisite	541253	1			5936
Leyspray	*(see MCPA)*				----
Lime	*(see Calcium hydroxide)*				3490
Limonene, D-	5989275				----
Lindane	58899	1	X	U129	2154
Linormone	*(see MCPA)*				----
Liquid sulfur	*(see Sulfur)*				2065
Lithium chromate	14307358	10			3930
Lithium hydride	7580678	1			3931
Lorol 20	*(see Octyl alcohol, N-)*				2077
Lutosol	*(see Isopropyl alcohol)*				5898
M					
M 40	*(see MCPA)*				----
M-Cresol	*(see Cresol, m-)*	X	U052	2033	
M-Dinitrobenzene	*(see Dinitrobenzene, m-)*				2135
M-Pyrol	*(see N-Methylpyrrolidinone)*				----
M-Xylene	*(see Xylene, m-)*			2097	
Malathion	121755	100	X		2155
Maleic acid	110167	5000			2156
Maleic anhydride	*(see 2,5-Furandione)*		X		2157
Malononitrile	109773	1000	X	U149	5940

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Maneb	12427382		X		5942
Manganese and compounds	7439965				5944
Manganese, tricarbonyl methylcyclopentadienyl	12108133	1			5946
MBI	*(see Methylene bis(phenylisocyanate))*				5948
MCP	*(see (4-chloro-2-methylphenoxy)acetic acid)*				----
MCPA	*(see (4-chloro-2-methylphenoxy)acetic acid)*				----
MDI	*(see Diphenyl methane diisocyanate)*				5948
MEA	*(see Monoethanolamine)*				----
Mechlorethamine	51752	1	X		5950
MEK	*(see Methyl ethyl ketone)*				2069
Melamine	108781		X		5952
Melphalan	*Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-,L-*			5268	
Mendrin	*(see Endrin)*				2143
Mentha-1,8-diene, [(d-p-) or (p-)]	*(see Limonene, D-)*				----
Mephanac	*(see MCPA)*				----
Mephosfolan	950107	1			5956
Mercaptodimethur	*(see Methiocarb)*	X		5996	
Mercaptoethanol (or b-)	*(see 2-Mercaptoethanol)*				----
Mercaptomethane	*(see Methyl mercaptan)*				2160
Mercuric acetate	1600277	1			5960
Mercuric chloride	7487947	1			5962
Mercuric cyanide	592041	1			3940
Mercuric nitrate	10045940	10			3950
Mercuric oxide	21908532	1			5964
Mercuric sulfate	7783359	10			3960
Mercuric sulfocyanate	*(see Mercuric thiocyanate)*				3970
Mercuric thiocyanate	592858	10			3970
Mercurous nitrate	7782867	10			3980
Mercurous nitrate	10415755	10			3980
Mercury	7439976	1	X	U151	2158
Mercury cyanide	*(see Mercuric cyanide)*				3940
Mercury nitrate	*(see Mercuric nitrate)*				3950
Mercury sulfate	*(see Mercuric sulfate)*				3960
Mercury thiocyanate	*(see Mercuric thiocyanate)*				3970
Mercury pernitrate	*(see Mercuric nitrate)*				3950
Mercury persulfate	*(see Mercuric sulfate)*				3960
Mercury protonitrate	*(see Mercurous nitrate)*				3980
Merpol	*(see Ethylene oxide)*				5782
Mesitylene	108678				5966
Mesomile	*(see Methomyl)*			5998	
Meta-dihydroxybenzene	*(see Resorcinol)*			2185	
Metaxon	*(see MCPA)*				----
Methacide	*(see Toluene)*				2089
Methacrolein diacetate	10476956	1			5968
Methacrylic acid methyl ester	*(see Dichloromethane)*				5638
Methacrylic anhydride	760930	1			5970
Methacrylonitrile	126987	1000	X	U152	5972
Methacryloyl chloride	920467	1			5974
Methacryloyloxyethyl isocyanate	30674807	1			5976
Methamidophos	10265926				5978
Methane, chloro	*(see Chloromethane)*				2068
Methane, dibromo-	*(see Methylene bromide)*		X	U068	5982
Methane, dichloro-	*(see Dichloromethane)*				5638
Methane, iodo-	*(see Methyl iodide)*				5986
Methanesulfonyl fluoride	558258	1			5988
Methane, trichlorofluoro-	*(see Trichlorofluoromethane)*				5990
Methanethiol	*(see Methyl mercaptan)*				2160
Methanoic acid	*(see Formic acid)*			2056	
Methanol	67561	5000	X	U154	2067
Methapyrilene	91805	5000		U155	5992
Methidathion	950378	1			5994
Methiocarb	2032657	10			5996

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Methomyl	16752775	100		P066	5998
Methoxone	*(see MCPA)*				----
Methoxybenzoic acid, o-	*(see Methyl salicylate)*				----
Methoxychlor	72435	1	X	U247	2159
Methoxy-3, 2-	*(see Dicamba)*				2130
Methoxy-DDT	*(see Methoxychlor)*				2159
Methoxyethylmercuric acetate	151382	1			6000
Methyl 1,1-dimethylethyl ether	*(see Methyl tert-butyl ether)*				6022
Methyl-1, 2-	*(see Isoprene)*				2063
Methylacetonitrile,2-	*(see Acetone cyanohydrin)*				2004
Methyl 2-chloroacrylate	80637	1			6002
Methyl acrylate	96333		X		2066
Methyl adipate	*(see Dimethyl adipate)*				----
Methyl alcohol	*(see Methanol)*				2067
Methyl aldehyde	*(see Formaldehyde)*				2055
Methylamine	*(see Monomethylamine)*				2163
Methylaziridine, 2-	*(see Propyleneimine)*				6234
Methylbenzene	*(see Toluene)*				2089
Methyl benzenecarboxylate	93583				----
Methyl benzoate	*(see Methyl benzenecarboxylate)*			----	
Methyl bromide	74839	1000	X	U029	5420
Methylcarbinol	*(see Ethyl alcohol)*				----
Methylchlolanthrene, 3-	56495	1		U157	6006
Methyl chloride	*(see Chloromethane)*				2068
Methylchlorocarbonate	*(see Methyl chloroformate)*				6008
Methyl chloroform	*(see 1,1,1-Trichloroethane)*				5012
Methyl chloroformate	79221	1000	X	U156	6008
Methyl cyanide	*(see Acetonitrile)*			2005	
Methyldinitrobenzene	*(see Dinitrotoluene, liquid)*				----
Methyl disulfide	624920	1			6010
Methylenebis(4-isocyanatobenzene)	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Methylenebis(4-phenyleneisocyanate)	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Methylenebis(p-phenyleneisocyanate)	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Methylene bis(phenylisocyanate) (MBI)	101688	5000	X		5948
Methylene bromide	74953	1000	X	U068	5982
Methylene chloride	*(see Dichloromethane)*				5638
Methylenedi-p-phenylene diisocyanate	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Methylenedi-p-phenylene isocyanate	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Methylene diphenyl isocyanate	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Methylene di(phenylene isocyanate)	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Methylene glycol	*(see Polypropylene glycol)*				1091
Methylethene	*(see Propylene)*			6230	
Methylethylene	*(see Propylene)*			6230	
Methyl ethyl ketone	*(see 2-Butanone)*	X	U159	2069	
Methylethylmethane	*(see Butane, N-)*			----	
Methyl glycol	*(see Polypropylene glycol)*				1091
Methyl hydrazine	60344	10	X	P068	6028
Methyl iodide	74884	100	X	U138	5986
Methyl isobutyl ketone	108101	5000	X	U161	2070
Methyl isocyanate	624839	1	X	P064	6014
Methyl isothiocyanate	556616	1			6016
Methyl mercaptan	74931	100	X	U153	2160
Methyl methacrylate	80626	1000	X	U162	2072
Methyl-o-hydroxybenzoate	*(see Methyl salicylate)*				----
Methyl parathion	289000	100	X	P071	2161
Methyl phenkapton	3735237	1			6018
Methyl phenyl ketone	*(see Acetophenone)*				5258
Methyl phosphonic dichloride	676971	1			6020
Methylpyrrolidinone	*(see N-Methylpyrrolidinone)*				----
Methyl salicylate	119368				----
Methyl silicone	*(see Polydimethyl siloxane)*				----

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Methyl sulfhydrate	*(see Methyl mercaptan)*				2160
Methyl tert-butyl ether	1634044	1000	X		6022
Methyl thiocyanate	556649	1			6024
Methyl vinyl ketone	78944	1			6026
Methylmercuric dicyanamide	502396	1			6030
Methylphenols	*(see Cresol(s))*				2033
Methylthiouracil	56042	1		U164	6032
Methyltrichlorosilane	75796	1	X		6034
Metolcarb	1129415	1			6036
Mevinphos	7786347	10	X		2162
Mexacarbate	315184	1000			2212
Michler's ketone	90948		X		6038
Mitomycin C	50077	10		U010	6040
MMH	*(see Methyl hydrazine)*				6012
Molasses alcohol	*(see Ethyl alcohol)*				----
Mollan O	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Molybdenum trioxide	1313275		X		6042
Monochlorobenzene	*(see Chlorobenzene)*				2019
Monocrotophos	6923224	1			6044
Monoethanolamine	141435				----
Monoethylamine	75047	100			2163
Monoethyl ether of diethylene glycol	*(see Carbitol)*				----
Monoisopropylbiphenyl	*(see Isopropylbiphenyl)*				----
Monomethylamine	74895	100			2163
Monomethylhydrazine	*(see Methyl hydrazine)*				6012
Mononitrophenol	*(see Nitrophenol)*			2170	
Monosilane	*(see Silane)*				----
Monosodium dihydrogen phosphate	*(see Sodium dihydrogen phosphate)*				6046
Monosodium phosphate	*(see Sodium dihydrogen phosphate)*				6046
Monothioethyleneglycol	*(see 2-Mercaptoethanol)*				----
Morpholine	110918				2074
MTBE	*(see Methyl tert-butyl ether)*				6022
Municipal waste	++++++++				7017
Muriatic acid	*(see Hydrochloric acid)*				2060
Muscimol	2763964	1000		P007	6048
Mustard gas	505602	1	X		6050

N

N-(1-Naphthyl)-2-Thiourea	86884	100		P072	5316
N-(4-ethoxyphenyl)-Acetamide	*(see Acetamide, N-(4-ethoxyphenyl)-)*				5242
N-(aminothioxomethyl)-Acetamide	*(see Acetamide, N-(aminothioxomethyl)-)*				5244
N-9H-fluoren-2-yl-Acetamide	*(see Acetamide, N-9H-fluoren-2-yl-)*		U005	5246	
N-Amyl alcohol	123513				2015
N-Butane	*(see Butane, N-)*			----	
N-Butanethiol	*(see Butanethiol, N-)*				----
N-Butyl acetate	*(see Butyl acetate)*				3390
N-Butyl acrylate	*(see Butyl acrylate)*				5424
N-Butyl alcohol	*(see 1-Butanol)*			2023	
N-Butyl methacrylate	*(see 2-Methyl butylacrylate)*				----
N-Dinitrobenzene	*(see Dinitrobenzene)*				2135
N-Heptane	*(see Heptane)*				----
N-Hexane	110542				2059
N-Methyl-2-pyrrolidinone	*(see N-Methylpyrrolidinone)*				----
N-Methyl-2-pyrrolidone	*(see N-Methylpyrrolidinone)*				----
N-Methylpyrrolidinone	872504		X		----
N-Methylpyrrolidone	*(see N-Methylpyrrolidinone)*				----
N,N-Diethylhydrazine	1615801	1		U086	6088
N,N-Dimethylaniline	121697	100	X		6090
N-Nitrosodiethylamine	*(see Ethanamine, N-ethyl-N-nitroso-)*				5744
N-Nitrosodi-N-propylamine	*(see Di-n-propylnitrosamine)*				5596
N-Nitrosodiphenylamine	86306	100	X		6092

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
N-Nitrosomethylvinylamine	*(see Ethenamine, N-methyl-N-nitroso-)*				5760
N-Nitrosomorpholine	59892	1	X		6094
N-Nitroso-N-ethylurea	*(see Carbamide, N-ethyl-N-nitroso-)*			U176	5462
N-Nitroso-N-methylurea	*(see Carbamide, N-methyl-N-nitroso-)*			U177	5462
N-Nitroso-N-methylurethane	*(see Carbamic acid, methylnitroso-,ethyl ester)*			U178	5460
N-Nitrosonornicotine	16543558		X		6096
N-Nitrosopiperidine	100754	10	X	U179	6098
N-Nitrosopyrrolidine	930552	1		U180	6100
N-Lyraldehyde	++++++++				2025
N-Octanol	*(see Octyl alcohol, N-)*				2077
N-Octyl alcohol	*(see Octyl alcohol, N-)*				2077
N-Propyl alcohol	*(see Propyl alcohol)*				2083
Nacconate 300	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
Naled	300765	10			2164
Naphthalene	91203	100	X	U165	2165
Naphthenic acid	1338245	100			2166
Naphthaquinone, 1,4-	*(see 1,4-Naphthalenedione)*				5070
Naphthylamine, 1-	*(see 1-Naphthylamine)*				5080
Naphthylamine, 2-	*(see 2-Naphthylamine)*				5184
Naphtoelan Red GG base	*(see Benzenamine, 4-nitro-)*				5356
Natrium	*(see Sodium)*				2187
Natural gas	(*see also LPG)*				1091
NCI-C03134	*(see Ethyl alcohol)*				----
NCI-C50077	*(see Propylene)*			6230	
NCI-C50088	*(see Ethylene oxide)*				5782
NCI-C50668	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
NCI-C52733	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
NCI-C54955	*(see Benzene, 1,4-dichloro-)*				2019
NCI-C55152	*(see Antimony oxide)*				----
NCI-C55425	*(see Glutaraldehyde)*				----
NCI-C55572	*(see Limonene, D-)*				----
NCI-C56417	*(see Boric acid)*			----	
NCI-C60571	*(see N-Hexane)*			2059	
NCI-C60786	*(see Benzenamine, 4-nitro-)*				5356
NCI-C60866	*(see Butanethiol, N-)*				----
Neutral ammonium fluoride	*(see Ammonium fluoride)*				3130
Nialate	*(see Ethion)*				2144
Nickel	7440020	100	X		2167
Nickel ammonium sulfate	15699180	100			4010
Nickel carbonyl	13463393	10		P073	6054
Nickel chloride	7718549	100			4020
Nickel chloride	37211055	100			4020
Nickel cyanide	557197	10		P074	6056
Nickel hydroxide	12054487	10			4030
Nickel nitrate	14216752	100			4040
Nickel sulfate	7786814	100			4050
Nickelous chloride	*(see Nickel chloride)*				4020
Nickelous hydroxide	*(see Nickel hydroxide)*				4030
Nickelous sulfate	*(see Nickel sulfate)*				4050
Nicotine	54115	100		P075	6058
Nicotine sulfate	65305	1			6060
Niobe oil	*(see Methyl benzenecarboxylate)*			----	
Niran	*(see Dinitrosopentamethylenetetramine)*				2172
Nitraniline, p-	*(see Benzenamine, 4-nitro-)*				5356
Nitrazol CF extra	*(see Benzenamine, 4-nitro-)*				5356
Nitric acid	7697372	1000	X		2075
Nitric oxide	10102439	10		P076	6062
Nitrilotriacetic acid	139139		X		6064
Nitroaniline, p-	1000016	5000		P077	5356
Nitrobenzene	98953	1000	X	U169	2168
Nitrocyclohexane	1122607	1			6070

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Nitrofen	1836755		X		6072
Nitrogen dioxide	10544726	10		P078	2169
Nitrogen dioxide	10102440	10		P078	2169
Nitrogen mustard	*(see Mechlorethamine)*				5950
Nitroglycerine	55630	10	X	P081	6074
Nitrolbenzol	*(see Nitrobenzene)*				2168
Nitrophenol (mixed)	25154556	100			2170
Nitrophenol, m-	554847	100			2170
Nitrophenol, o-	88755	100	X		2170
Nitrophenol, p-	100027	100	X	U170	2170
Nitrophenylamine, p-	*(see Benzenamine, 4-nitro-)*				5356
Nitrosodimethylamine	62759	1	X	P082	6076
Nitrosodiphenylamine, p-	156105		X		6078
Nitrotoluene	1321126	1000			6080
Nitrotoluene, m-	99081	1000			6080
Nitrotoluene, o-	88722	1000			6080
Nitrotoluene, p-	99990	1000			6080
Nitrox-80	*(see Methyl parathion)*				2161
NMP	*(see N-Methylpyrrolidinone)*				----
Noflamol	*(see Polychlorinated biphenyls)*			2173	
Nonion HS206	*(see Glycols, Polyethylene, Mono(1,1,3,3-tetramethylbutyl)phenyl) Ether)*				5844
Nonyl phenol (mixed isomers)	25154523				----
Norbormide	991424	1			6102
NSC 9717	*(see Tris-(1-aziridinyl)phosphine oxide)*				5318
Nu-Bait II	*(see Methomyl)*			5998	
Nudrin	*(see Methomyl)*			5998	
Nuoplaz DOP	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
O					
O-Cresol	*(see Cresol, o-)*			2033	
O-Dichlorobenzene	*(see 1,2-Dichlorobenzene)*				2038
O-Dinitrobenzene	*(see Dinitrobenzene, o-)*				2135
O-Xylene	*(see Xylene, o-)*			2096	
Octachloronaphthalene	2234131		X		6104
Octalene	*(see Aldrin)*				3000
Octamethyldiphosphoramide	*(see Diphosphoramide, octamethyl-)*				5718
Octamethylpyrophosphoramide	152169	100		P089	6106
Octanol	*(see Octyl alcohol, N-)*				2077
Octilin	*(see Octyl alcohol, N-)*				2077
Octoil	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Octyl alcohol, N-	111875				2077
Octyl phthalate	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Oil-Dri	*(see Aluminum silicate)*				----
Oil of Mirbane	*(see Nitrobenzene)*				2168
Oil of Niobe	*(see Methyl benzenecarboxylate)*			----	
Oil of Vitriol	*(see Sulfuric acid)*				2087
Oil of Wintergreen	*(see Methyl salicylate)*				----
Oils					
Animal oil	*(see Animal oil)*			1070	
Asphalt	*(see Asphalt or other residuals)*			1061	
Coal tar	*(see Asphalt or other residuals)*			1062	
Coke	++++++++				7020
Creosote	*(see Asphalt or other residuals)*			1060	
Crude oil	*(see Crude oil)*				
Diesel fuel	*(see Diesel fuel)*				
Fuel oils	*(see Fuel oil)*				
Gasoline	*(see Gasoline)*				
Grease	++++++++				1094
Hydraulic fluid	++++++++				1091
Jet fuels	*(see Jet fuel)*				

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Lacquer-based paint	++++++++				1092
Kerosene	*(see Kerosene)*			1021	
Liquefied petroleum gas (LPG)	++++++++				1091
Lube oil	++++++++				1089
Mineral spirits	*(see Solvents)*				
Mixed petroleum products	++++++++				1095
Oil-based pesticides	++++++++				1096
OSC oil	*(see Crude oil)*				
Paraffin wax	++++++++				1093
Unknown light oil	++++++++				1097
Unknown heavy oil	++++++++				1098
Unknown or other oil	++++++++				1099
Solvents	*(see Solvents)*				
Vegetable oil	*(see Vegetable oil)*				1071
Waste oil	++++++++				1080
Olamine	*(see Monoethanolamine)*				----
Olefiant gas	*(see Ethylene)*				5774
Oleum	*(see Sulfuric acid, fuming)*				2087
Omal	*(see 2,4,5-Trichlorophenol)*				2206
O,O-Diethyl O-3,5,6-trichloro-2-pyridil phosphorothioate	2921882				2141
O,O-Diethyl S-methyl dithiophosphate	3288582	5000		U087	6108
Orotic acid	65861				6110
Orthoboric acid	*(see Boric acid)*			----	
Orthodichlorobenzene	*(see 1,2-Dichlorobenzene)*				2038
Orthophosphoric acid	*(see Phosphoric acid)*				2082
Osmium tetroxide	20816120	1000	X	P087	6112
Other Pollutants					
Agricultural waste	++++++++				7018
Biological materials	++++++++				7009
Coal dust	++++++++				7019
Dredged spoil	++++++++				7001
Equipment, wrecked or discarded	++++++++				7012
Incinerator residue	++++++++				7003
Industrial waste	++++++++				7016
Municipal waste	++++++++				7017
Munitions	++++++++				7007
Other material	++++++++				9000
Radioactive materials	++++++++				7010
Rock	++++++++				7013
Saltwater	++++++++				7021
Sand	++++++++				7014
Ouabain	630604	1			6114
Oxacyclopropane	*(see Ethylene oxide)*				5782
Oxamyl	23135220	1			6116
Oxane	*(see Ethylene oxide)*				5782
Oxetane, 3,3-bis(chloromethyl)-	78717	1			6118
Oxidoethane	*(see Ethylene oxide)*				5782
Oxirane	*(see Ethylene oxide)*				5782
Oxybenzene	*(see Phenol)*				2080
Oxydisulfoton	2497076	1			6120
Oxyfume (12)	*(see Ethylene oxide)*				5782
Oxytoluene(s)	*(see Cresol(s))*				2033
Ozone	10028156	1			6122
P					
P-Cresidene	*(see Cresidene, p-)*				5554
P-Cresol	*(see Cresol, p-)*	X	U052	2033	
P-Xylene	*(see Xylene, p-)*			2096	
Palatinol AH	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Paracide	*(see Benzene, 1,4-dichloro-)*				2019
Para crystals	*(see Benzene, 1,4-dichloro-)*				2019

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Paradow	*(see Benzene, 1,4-dichloro-)*				2019
Paraform	*(see Paraformaldehyde)*				2171
Paraformaldehyde	30525894	1000			2171
Paraldehyde	123637	1000			6124
Paramoth	*(see Benzene, 1,4-dichloro-)*				2019
Paranitroaniline	*(see Benzenamine, 4-nitro-)*				5356
Paranuggets	*(see Benzene, 1,4-dichloro-)*				2019
Paraquat	1910425	1			6126
Paraquat methosulfate	2074502	1			6128
Parathion	56382	1	X	P089	2172
Parathion-methyl	*(see Methyl parathion)*				2161
Parazene	*(see Benzene, 1,4-dichloro-)*				2019
Paris green (Cupric acetoarsenite)	12002038	1			3610
PBB	*(see Polybrominated biphenyls)*				
PCBs	*(see Polychlorinated biphenyls)*			2173	
PCNB	*(see Pentachloronitrobenzene)*				6130
PCP	*(see Pentachlorophenol)*				2174
PDB	*(see Benzene, 1,4-dichloro-)*				2019
PDCB	*(see Benzene, 1,4-dichloro-)*				2019
Pear oil	*(see Amyl acetate)*				2014
Pearsall	*(see Aluminum chloride)*				----
Penta	*(see Pentachlorophenol)*				2174
Pentaborane	19624227	1			6132
Pentachlorobenzene	608935	10		U183	6134
Pentachloroethane	76017	10	X	U184	6136
Pentachloronitrobenzene (PCNB)	82688	100	X	U185	6130
Pentachlorophenol (PCP)	87865	10	X	U242	2174
Pentadecylamine	2570265	1			6138
Peracetic acid	79210	1	X		6140
Perchloroethylene	*(see Tetrachloroethylene)*				2079
Perchloromethylmercaptan	594423	100		P118	6142
Persia-Perazol	*(see Benzene, 1,4-dichloro-)*				2019
Petrohol	*(see Isopropyl alcohol)*				5898
Phenacetin	62442	100		U187	6144
Phenanthrene	85018	5000	X		6146
Phenochlor	*(see Polychlorinated biphenyls)*			2173	
Phenol	108952	1000	X	U188	2080
Phenol, 2,2'-thiobis(4,6-dichloro-)	*(see 2,2'-thiobis(4,6-dichlorophenol))*				5124
Phenol, 2,2'-thiobis(4-chloro-6-methyl-)	*(see 2,2'-thiobis(4-chloro-6-methylphenol)*				5126
Phenol, 2,3,4,6-tetrachloro-	*(see 2,3,4,6-tetrachlorophenol)*				5086
Phenol, 2,4,5-trichloro-	*(see 2,4,5-trichlorophenol)*				2206
Phenol, 3-(1-methylethyl)-, methylcarbamate	*(see 3-(1-methylethyl)-phenol, methylcarbamate)*			5194	
Phenol, 2,4,6-trichloro	*(see 2,4,6-trichlorophenol)*				2206
Phenoxarsine, 10,10'-oxydi-	58366	1			6148
Phenoxybenzene	*(see Diphenyl ether)*				----
Phenylamine	*(see Aniline)*				2017
Phenyl cyanide	*(see Benzonitrile)*			3350	
Phenyldichloroarsine	696286	1		P036	5642
Phenylenediamine, p-	106503	5000	X		6150
Phenylethane	*(see Ethylbenzene)*				2145
Phenyl ether	*(see Diphenyl ether)*				----
Phenylethylene	*(see Styrene)*				2086
Phenylformic acid	*(see Benzoic acid)*				2107
Phenylhydrazine hydrochloride	59881	1			6152
Phenyl hydroxide	*(see Phenol)*				2080
Phenylmercury acetate	62384	100		P092	6154
Phenylmethane	*(see Toluene)*				2089
Phenyl methyl ketone	*(see Acetophenone)*				5258
Phenylsilatrane	2097190	1			6156
Phenylthiourea	103855	100		P093	6158
Phorate	298022	10		P094	6160
Phosacetim	4104147	1			6162

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Phosdrin	*(see Mevinphos)*			2162	
Phosfolan	947024	1			6164
Phosgene	75445	10	X	P095	2175
Phosmet	732116	1			6166
Phosphamidon	13171216	1			6168
Phosphine	7803512	100	X	P096	5278
Phosphonothioic acid, methyl-,O-ethyl O-(4-(methylthio)phen	2703131	1			6172
Phosphonothioic acid, methyl-,S-(2-(bis(1-methylethyl)amino	50782699	1			6174
Phosphonothioic acid, methyl-,O-(4-nitrophenyl) O-phenyl est	2665307	1			6176
Phosphoric acid	7664382	5000	X		2082
Phosphoric acid, dimethyl 4-(methylthio)phenyl ester	3254635	1			2082
Phosphoric acid triethyleneimine	*(see Tris-(1-aziridinyl)phosphine oxide)*				5318
Phosphoric sulfide	*(see Phosphorus pentasulfide)*				2177
Phosphorodithioate	*(see Ethion)*				2144
Phosphorothioic acid	3288582	5000		U087	6178
Phosphorothioic acid, O,O-dimethyl-S-(2-methylthio)ethyl est	2587908	1			6180
Phosphorus	7723140	1	X		2181
Phosphorus chloride	*(see Phosphorus trichloride)*				2178
Phosphorus oxychloride	10025873	1000			2176
Phosphorus pentachloride	10026138	1			6182
Phosphorus pentasulfide	1314803	100		U189	2177
Phosphorus pentoxide	1314563	1			6184
Phosphorus persulfide	*(see Phosphorus pentasulfide)*				2177
Phosphorus trichloride	7719122	1000			2178
Phosphorus trihydride	*(see Phosphine)*			6170	
Phosphoryl chloride	*(see Phosphorus oxychloride)*				2176
Phospotion	*(see Malathion)*			2155	
Phthalic acid dioctyl ester	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Phthalic anhydride	*(see 1,2-Benzenedicarboxylic acid anhydride)*				5024
Phygon	*(see Dichlone)*				2132
Phylloquinone	84800				6188
Physostigmine	57476	1			6190
Physostigmine, salicylate (1:1)	57647	1			6192
Picoline, 2-	*(see 2-Picoline)*			5190	
Picric acid	88891		X		6194
Picrotoxin	124878	1			6196
Piperidine	110894	1			6198
Piprotal	5281130	1			6200
Pirimifos-ethyl	23505411	1			6202
Pittsburg PX-138	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Platinol (AH or DOP)	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Platinous chloride	10025657				6204
Platinum tetrachloride	13454961				6206
Plumbous fluoride	*(see Lead fluoride)*				3860
Pluracol V	*(see Glycols, Polyethylenepolypropylene)*				5846
PNA	*(see Benzenamine, 4-nitro-)*				5356
Polybrominated Biphenyls (PBBs)	*(see Polychlorinated biphenyls)*			2173	
Polychlorinated biphenyls (PCBs)	1336363	1	X		2173
Polychlorinated diphenyl	*(see Polychlorinated biphenyls)*			2173	
Polydimethyl siloxane	9016006				----
Polyethylene glycol mono(octylphenyl) ether	*(see Glycols, Polyethylene, Mono(1,1,3,3-tetramethylbutyl)phenyl) Ether)*				5847
Polyethylene-polypropylene glycol	*(see Glycols, Polyethylenepolypropylene)*				5846
Polymerized formaldehyde	*(see Paraformaldehyde)*				2171
Poly(oxy(dimethylsilylene))	*(see Polydimethyl siloxane)*				----
Polyoxymethylene	*(see Paraformaldehyde)*				2171
Polypropylene glycol	25322694				1091
Poly-Solv	*(see Carbitol)*				----
Potassa	*(see Potassium hydroxide)*				2179
Potassium antimonyl tartrate	*(see Antimony potassium tartrate)*			3240	
Potassium arsenate	7784410	1			4070
Potassium arsenite	10124502	1			4080

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Potassium bichromate	7778509	10			4090
Potassium chloride	7447407				----
Potassium chromate	7789006	10			4090
Potassium cyanide	151508	10		P098	4110
Potassium dichromate	*(see Potassium bichromate)*				4090
Potassium hydrate	*(see Potassium hydroxide)*				2179
Potassium hydroxide	1310583	1000			2179
Potassium metaarsenite	*(see Potassium arsenite)*				4080
Potassium monochloride	*(see Potassium chloride)*				----
Potassium permanganate	7722647	100			2180
Potassium silver cyanide	506616	1		P099	6208
Primary octyl alcohol	*(see Octyl alcohol, N-)*				2077
Prodox 133	*(see Isopropylphenol)*				----
Promecarb	2631370	1			6210
Pronamide	*(see 3,5-Dichloro-N-(1,1-dimethyl-2-propynyl)benzamide)*				5200
Propan-2-ol	*(see Isopropyl alcohol)*				5898
Propane, 2-methyloxy-2-methyl	*(see Methyl tert-butyl ether)*				6022
Propanediol, 1,2-	*(see Polypropylene glycol)*				1091
Propane sultone, 1,3-	*(see 1,3-Propane sultone)*				5066
Propanoic acid	*(see Propionic acid)*				2181
Propanoic anhydride	*(see Propionic anhydride)*				2182
Propanol, 1-	*(see Propyl alcohol)*				2083
Propargite	2312358	10	X		6216
Propargyl alcohol	107197	1000	X	P102	2011
Propargyl bromide	106967	1			6218
Propenal, 2-	*(see Acrolein)*				2007
Propene	*(see Propylene)*			6230	
Propenenitrile	*(see Acrylonitrile)*			2009	
Propiolactone, beta-	57578	10	X		6220
Propionaldehyde	*(see Propionic anhydride)*		X		2182
Propionic acid	79094	5000			2181
Propionic acid, 2-(2,4,5-trichlorophenoxy)-	*(see 2,4,5-TP acid)*				5116
Propionic anhydride	123626	5000			2182
Propionitrile	1071200	10		P101	5772
Propionitrile, 3-chloro-	*(see 3-Chloropropionitirile)*				5202
Propiophenone, 4'-amino-	70699	1			6224
Propoxur	114261	100	X		6226
Propyl alcohol	71238				2083
Propyl chloroformate	109615	1			6228
Propylen M12	*(see Glycols, Polyethylenepolypropylene)*				5846
Propylene (Propene)	115071		X		6230
Propylene glycol, allyl ether	1331175				6232
Propylene oxide	75569	100	X		2085
Propyleneimine	75558	1	X	P067	6234
Propylthiouracil	51525				6236
Prothoate	2275185	1			6238
Proxanol	*(see Glycols, Polyethylenepolypropylene)*				5846
Pseudocumene	95636				6240
Pyralene	*(see Polychlorinated biphenyls)*			2173	
Pyranol	*(see Polychlorinated biphenyls)*			2173	
Pyrene	129000	5000			6242
Pyrethrins	121211	1			2183
Pyrethrins	121299	1			2183
Pyrethrins	8003347	1			2183
Pyridine	110861	1000	X	U196	2084
Pyridine, 2-methyl-5-vinyl-	140761	1			2084
Pyridine, 4-amino-	504245	1000	X	P008	2084
Pyridine, 4-nitro-, 1-oxide	1124330	1			6244
Pyriminil	53558251	1			6246
Pyromucic aldehyde	*(see Furfural)*				2057
Pyrosulfuric acid	*(see Sulfuric acid, fuming)*				2087

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Q					
Quick lime	*(see Calcium oxide)*				3490
Quinoline	91225	5000	X		2184
Quinone	*(see Benzoquinone, p-)*				5378
Quintozene	*(see Pentachloronitrobenzene)*				6130
R					
Radionuclides	++++++++	1			7010
RC Plasticizer DOP	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Red 2G Base	*(see Benzenamine, 4-nitro-)*				5356
Red arsenic sulfide	*(see Arsenic disulfide)*				3290
Red phosphorus	*(see Phosphorus)*				2181
Reglone	*(see Diquat)*				2137
Reomol (DOP or D79P)	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Reserpine	50555	5000		U200	6248
Resorcin	*(see 1,3-Benzenediol)*				2185
Resorcinol	*(see 1,3-Benzenediol)*				2185
Rhodium trichloride	10049077				6250
Rubinate 44	*(see Methylene bis(phenylisocyanate) (MBI))*				5948
S					
S-Diisopropylacetone	*(see Diisobutyl ketone)*				----
Saccharin and salts	*(see 1,2-Benzisothiazolin-3-one,1,1-dioxide, and salts)*				5032
Safe-n-Dri	*(see Aluminum silicate)*				----
Safrole	*(see Benzene, 1,2-methylenedioxy-4-allyl-)*				2018
Sal ammoniac	*(see Ammonium chloride)*				3090
Salcomine	14167181	1			6256
Salicylic acid, methyl ester	*(see Methyl salicylate)*				----
Salmiac	*(see Ammonium chloride)*				3090
Santochlor	*(see Benzene, 1,4-dichloro-)*				2019
Santotherm	*(see Polychlorinated biphenyls)*			2173	
Sarin	107448	1			6258
Selenious acid	*(see Selenous acid)*				4120
Selenious oxide	*(see Selenium oxide)*				4120
Selenium	7782492	100	X		2186
Selenium dioxide	7446084	10		U204	4120
Selenium disulfide	7488564	10		U205	4120
Selenium oxychloride	7791233	1			4120
Selenium oxide	++++++++++				4120
Selenium sulfide	*(see Selenium disulfide)*				4120
Selenourea	630104	1		P103	6260
Selenous acid	7783008	10		U204	4120
Selenous acid anhydride	*(see Selenium dioxide)*				4120
Semicarbazide hydrochloride	563417	1			6262
Sevin	*(see Carbaryl)*				2116
Sewage					7009
Sicol 150	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Silane	7803625				----
Silane, (4-aminobutyl)diethoxymethyl-	3037727	1			6264
Silicane	*(see Silane)*				----
Silicic acid aluminum salt	*(see Aluminum silicate)*				----
Silicon tetrahydride	*(see Silane)*				----
Silver	7440224	1000	X		6268
Silver cyanide	506649	1		P104	6266
Silver nitrate	7761888	1			6270
Silvex	*(see 2,4,5-TP esters)*				5118
Sipol 8	*(see Octyl alcohol, N-)*				2077
Slaked lime	*(see Calcium hydroxide)*				3490
Soda lye	*(see Sodium hydroxide)*				2030

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Sodium	7440235	10			2187
Sodium acid phosphate	*(see Sodium dihydrogen phosphate)*				6046
Sodium acid sulfite	*(see Sodium bisulfite)*				2188
Sodium anthraquinone-1-sulfonate	128563				6272
Sodium arsenate	7631892	1			4130
Sodium arsenite	7784465	1			4140
Sodium azide ($Na(N_3)$)	26628228	1000	X	P105	6274
Sodium bichromate	*(see Sodium dichromate)*				4150
Sodium bifluoride	1333831	100			4160
Sodium biphosphate	*(see Sodium dihydrogen phosphate)*				6046
Sodium bisulfite	7631905	5000			2188
Sodium cacodylate	124652	1			6276
Sodium chromate	7775113	10			4170
Sodium cyanide (Na(CN))	143339	10		P106	4180
Sodium dichromate	10588019	10			4150
Sodium dihydrogen phosphate	7558807				6046
Sodium dodecylbenzene sulfonate	25155300	1000			4190
Sodium fluoride	7681494	1000			4200
Sodium fluoroacetate	62748	10		P058	5232
Sodium hydrosulfide	16721805	5000			2189
Sodium hydroxide	1310732	1000			2030
Sodium hypochlorite	7681529	100			2191
Sodium hypochlorite	10022705	100			2191
Sodium metaarsenite	*(see Sodium arsenite)*				4140
Sodium methoxide	*(see Sodium methylate)*				2192
Sodium methylate	124414	1000			2192
Sodium nitrite	7632000	100			2193
Sodium pentachlorophenate	131522		X		6278
Sodium phosphate, dibasic	7558794	5000			2194
Sodium phosphate, dibasic	10140655	5000			2194
Sodium phosphate, dibasic	10039324	5000			2194
Sodium phosphate, monobasic	*(see Sodium dihydrogen phosphate)*				6046
Sodium phosphate, tribasic	7601549	5000			2196
Sodium phosphate, tribasic	7758294	5000			2196
Sodium phosphate, tribasic	7785844	5000			2196
Sodium phosphate, tribasic	10101890	5000			2196
Sodium phosphate, tribasic	10361894	5000			2196
Sodium phosphate, tribasic	10124568	5000			2196
Sodium selenate	13410010	1			6280
Sodium selenite	7782823	100			4210
Sodium selenite	10102188	100			4210
Sodium sulfate (solution)	7757826		X		6282
Sodium sulfide	1313822				2197
Sodium tellurite	10102202		X		6284
Solvents					
Mineral spirits	++++++++				1031
Naptha	++++++++				1030
Other petroleum solvents	++++++++				1032
Solvent ether	*(see Ethyl ether)*			2043	
Solvosol	*(see Carbitol)*				----
Sonacide	*(see Glutaraldehyde)*				----
Snow-Tex	*(see Aluminum silicate)*				----
Spectracide	*(see Diazinon)*				2129
Spectrar	*(see Isopropyl alcohol)*				5898
SR-406	*(see Captan)*				2115
Staflex DOP	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Stannane, acetoxytriphenyl-	900958	1			6286
Stearic acid lead salt	*(see Lead stearate)*				3890
Streptozotocin	18883664	1		U206	5580
Strontium chromate	7789062	10			4220
Strontium sulfide	1314961	100		P107	6290
Strychnine	57249	10		P108	2198
Strychnine, sulfate	60413	1			6292

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Styrene	100425	1000	X		2086
Styrene oxide	96093	100	X		6294
Styrol	*(see Styrene)*				2086
Styrolene	*(see Styrene)*				2086
Sugar of lead	*(see Lead acetate)*				3820
Sulfotepp	*(see Tetraethyldithiopyrophosphate)*				6296
Sulfoxide, 3-chloropropyl octyl	3569571	1			6298
Sulfur	7704349				2065
Sulfur 35 (radioactive)	15117530				7010
Sulfur bromide	*(see Sulfur monobromide)*				6302
Sulfur chloride	*(see Sulfur monochloride)*				2199
Sulfur dichloride	10545990				6304
Sulfur dioxide	7446095	5000			6306
Sulfur monobromide	++++++++				6302
Sulfur monochloride	12771083	1000			2199
Sulfur oxide	*(see Sulfur dioxide)*				6306
Sulfur subchloride	*(see Sulfur monochloride)*				2199
Sulfur tetrafluoride	7783600	1			6308
Sulfur trioxide	7446119	1 *(1000 CAA)*			6310
Sulfuric acid	7664939	1000	X		2087
Sulfuric acid, fuming	8014957	1000			2087
Sulfuric anhydride	*(see Sulfur trioxide)*				6310
Sulfuric chlorohydrin	*(see Chlorosulfonic acid)*				2032
Sulfuric oxide	*(see Sulfur trioxide)*				6310
Sulfurous acid	7782992				6312
Sulfurous acid anhydride	*(see Sulfur dioxide)*				6306
Sulfurous anhydride	*(see Sulfur dioxide)*				6306
Sulfurous oxide	*(see Sulfur dioxide)*				6306
Sweet Birch oil	*(see Methyl salicylate)*				----

T

Tabun	77816	1			6314
Tar camphor	*(see Naphthalene)*				2165
Tartar emetic	*(see Antimony potassium tartrate)*			3240	
Tartaric ammonium salt	*(see Ammonium tartrate)*				3200
Tartarized antimony	*(see Antimony potassium tartrate)*			3240	
TCDD	*(see 2,3,7,8-Tetrachlordibenzo-p-dioxin)*				5088
TDE	*(see Triethylene glycol diglycidyl ether)*				2202
TDI	*(see 2,4-Toluene diisocyanates)*			6316	
Teaberry oil	*(see Methyl salicylate)*				----
Tecsol	*(see Ethyl alcohol)*				----
TEDP	*(see Tetraethyldithiopyrophosphate)*				6296
TEF	*(see Tris-(1-aziridinyl)phosphine oxide)*				5318
TEL	*(see Tetraethyl lead)*				2088
Tellurium	13494809	1			----
Tellurium hexafluoride	7783804	1			6318
TEPA	*(see Tris-(1-aziridinyl)phosphine oxide)*				5318
TEPP	*(see Tetraethylpyrophosphate)*				2203
Terbufos	13071799	1			6320
Terephthalic acid	100210		X		6322
Tergitol (nonionic)	*(see Glycols, Polyethylenepolypropylene)*				5846
Tergitol, TMN-6	*(see Glycols, Polyethylene,Mono(Trimethylnonyl)*			5845	
Tertiary-amyl alcohol	*(see Amyl alcohol)*				2016
Tetrachlorobenzene	95943	5000		U207	6324
Tetrachlordibenzo-p-dioxin, 2,3,7,8-	*(see 2,3,7,8-Tetrachlordibenzo-p-dioxin)*				5088
Tetrachloroethane	25322207				5008
Tetrachloroethane, 1,1,1,2-	*(see 1,1,1,2-Tetrachloroethane)*			5008	
Tetrachloroethane, 1,1,2,2-	*(see 1,1,2,2-Tetrachloroethane)*			5008	
Tetrachloroethene	*(see Ethene, 1,1,2,2-tetrachloro-)*			2079	
Tetrachloroethylene	127184	100	X	U210	2079
Tetrachloromethane	*(see Carbon tetrachloride)*				2029

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Tetrachlorophenol	25167833				5086
Tetrachlorophenol, 2,3,4,6-	*(see 2,3,4,6-Tetrachlorophenol)*			5086	
Tetrachlorvinphos	961115		X		6328
Tetraethyldithiopyrophosphate	3689245	100		P109	6296
Tetraethyllead	78002	10		P110	2088
Tetraethylpyrophosphate	107493	10		P111	2203
Tetraethyltin	597648	1			6330
Tetramethyl lead	75741	1			6332
Tetranitromethane	509148	10		P112	6334
Thallic oxide	1314325	100		P113	6336
Thallium	7440280	1000	X		6338
Thallium acetate	563688	100		U214	5252
Thallium carbonate	6533739	100		U215	6342
Thallium chloride	7791120	100		U216	6344
Thallium(I) nitrate	10102451	100		U217	6348
Thallium(I) selenide	12039520	1000		P114	6350
Thallium selenite	7446222	1			6352
Thallium sulfate	10031591	100		P115	6346
Thallous acetate	*(see Thallium acetate)*				6340
Thallous carbonate	*(see Thallium carbonate)*				6342
Thallous chloride	*(see Thallium chloride)*				6344
Thallous malonate	2757188	1			6346
Thallous sulfate	7446186	100		P115	6346
Therminol FR-1	*(see Polychlorinated biphenyls)*			2173	
Thioacetamide	*(see Ethanethioamide)*				5758
Thiocarbazide	2231574	1			6352
Thiocyanic acid, 2-(benzothiazolylthio)-methyl ester	21564170				6354
Thiodan	*(see Endosulfan)*			2142	
Thiofaco M-50	*(see Monoethanolamine)*				----
Thiofanox	39196184	100		P045	6356
Thioglycol	*(see 2-Mercaptoethanol)*				----
Thiometon	640153				6358
Thiomethyl alcohol	*(see Methyl mercaptan)*				2160
Thiomonoglycol	*(see 2-Mercaptoethanol)*				----
Thionazin	297972	100		P040	6360
Thiophenol	108985	100		P014	6362
Thiophosphoric anhydride	*(see Phosphorus pentasulfide)*				2177
Thiosemicarbazide	79196	100	X	P116	6364
Thiourea	62566	10	X	U219	5466
Thiourea, (2-chlorophenyl)-	5344821	100		P026	6366
Thiourea, (2-methylphenyl)-	614788	1			6368
Thiuram	*(see Bis(dimethylthiocarbomyl)disulfide)*				5404
Thorium dioxide	1314201		X		6370
Titanium dioxide	13463677				6372
Titanium tetrachloride	7550450	1000	X		6374
TL4N	*(see Diethylene glycol)*				----
TMA	*(see Trimethylamine)*				2208
TML	*(see Tetramethyllead)*				6332
Toluene	108883	1000	X	U220	2089
Toluenediamine	*(see Diaminotoluene)*				5602
Toluene 2,4-diisocyanate	584849	100	X		6316
Toluene 2,6-diisocyanate	91087	100	X		6316
Toluidine, o-	95534	1	X	U328	6378
Toluidine hydrochloride, o-	636215	100	X	U222	6380
Toluol	*(see Toluene)*				2089
Toxaphene	8001352	1	X	P123	2204
Toxichlor	*(see Chlordane)*			2117	
Toxilic acid	*(see Maleic acid)*			2156	
Toxilic anhydride	*(see 2,5-Furandione)*				2157
Trans-butenedioic acid	*(see Fumaric acid)*				2147
Trans-1,4-dichlorobutene	110576	1			6382
Trans-1,2-ethylenedicarboxylic acid	*(see Fumaric acid)*				2147

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Triamiphos	1031476	1			6384
Triaziquone	68768		X		6386
Triazofos	24017478	1			6388
Tribromomethane	*(see Bromoform)*			5418	
Tricalcium orthoarsenate	*(see Calcium arsenate)*				3430
Trichlorfon	52686	100	X		2205
Trichloroacetaldehyde	*(see Acetaldehyde, trichloro)*				5238
Trichloroacetyl chloride	76028	1	X		6390
Trichloroaluminum	*(see Aluminum chloride)*				----
Trichlorobenzene	12002481				5016
Trichlorobenzene, 1,2,4-	*(see 1,2,4-Trichlorobenzene)*				5016
Trichloro(chloromethyl)silane	1558254	1			6394
Trichloro(dichlorophenyl)silane	27137855	1			6396
Trichloroethane	25323891				2090
Trichloroethane, 1,1,1-	*(see 1,1,1-Trichloroethane)*				2090
Trichloroethane, 1,1,2-	*(see 1,1,2-Trichloroethane)*				2090
Trichloroethylene	79016	100	X	U228	2091
Trichloroethylsilane	115219	1			6398
Trichlorofluoromethane	75694	5000	X	U121	5990
Trichloromethane	*(see Chloroform)*			2031	
Trichloromethanethiol	++++++++				6400
Trichloronate	327980	1			6402
Trichlorophenol	25167822	10			2206
Trichlorophenol, 2,4,5-	*(see 2,4,5-Trichlorophenol)*				2206
Trichlorophenol, 2,4,6-	*(see 2,4,6-Trichlorophenol)*				2206
Trichlorophenoxyacetic acid, 2,4,5-	*(see 2,4,5-T)*				2200
Trichlorophenoxyacetic amines, 2,4,5-	*(see 2,4,5-T amines)*				5094
Trichlorophenoxyacetic esters, 2,4,5-	*(see 2,4,5-T esters)*				2201
Trichlorophenoxyacetic salts, 2,4,5-	*(see 2,4,5-T salts)*				5098
Trichlorophenoxypropionic acid, 2,4,5-	*(see 2,4,5-TP acid esters)*				5118
Trichlorophenylsilane	98135	1			6406
Trichlorophon	52686	100	X		6408
Triethanolamine dodecylbenzene sulfonate	27323417	1000			2092
Triethoxysilane	998301	1			6410
Triethylamine	121448	5000	X		2207
Triethylene phosphorotriamide	*(see Tris-(1-aziridinyl)phosphine oxide)*				5318
Triethylphosphorothioate, O,O,O-	++++++++				6412
Triformol	*(see Formaldehyde)*				2055
Trifluralin	1582098	10	X		7018
Trimethylamine	75503	100			2208
Trimethylchlorosilane	75774	1	X		6414
Trimethylolpropane phosphite	824113	1			6416
Trimethylpentane, 2,2,4-	*(see 2,2,4-Trimethylpentane)*				2076
Trimethyltin chloride	1066451	1			6418
Trinitrobenzene	*(see Benzene, 1,3,5-trinitro)*				2018
Triphenyltin chloride	639587	1			6422
Tripotassium trichloride	*(see Potassium chloride)*				----
Tris-(1-aziridinyl)phosphine oxide	545551				5318
Tris(2-chloroethyl)amine	555771	1			6424
Tris(2,3-dibromopropyl)phosphate	*(see 1-Propanol, 2,3-dibromo-,phosphate (3:1))*			5084	
Truflex DOP	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Trypan blue	72571	10	X	U236	6428
Turpentine	8006642				2093

U

Uracil, 5-[bis(2-chloroethyl)amino]-	66751	10		U237	6430
Uranium compounds	++++++++				7010
Uranium 235	15117691				7010
Uranium 238	7440611				7010
Uranyl acetate	541093	100			4250
Uranyl nitrate	36478769	100			4260

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Uranyl nitrate	10102064	100			4260
Urethane	*(see Carbamic acid, ethyl ester)*			5486	
USAF B-30	*(see Bis(dimethylthiocarbomyl)disulfide)*				5404
USAF EK-496	*(see Acetophenone)*				5258
USAF EK-1597	*(see Monoethanolamine)*				----
USAF EK-2089	*(see Bis(dimethylthiocarbomyl)disulfide)*				5404
USAF EK-4196	*(see 2-Mercaptoethanol)*				----
USAF P-5	*(see Bis(dimethylthiocarbomyl)disulfide)*				5404
V					
Valerone	*(see Diisobutyl ketone)*				----
Valfor	*(see Aluminum silicate)*				----
Valinomycin	2001958	1			6432
VAM	*(see Vinyl acetate monomer)*		X		2094
Vanadic acid, ammonium salt	*(see Ammonium vanadate)*				5300
Vanadic acid anhydride	*(see Vanadium pentoxide)*				4270
Vanadic anhydride	*(see Vanadium pentoxide)*				4270
Vanadic sulfate	*(see Vanadyl sulfate)*				4280
Vanadium compounds	++++++++				2210
Vanadium (fume or dust)	7440622		X		2210
Vanadium pentoxide	1314621	1000		P120	4270
Vanadium sulfate	*(see Vanadyl sulfate)*				4280
Vanadyl sulfate	27774136	1000			4280
Vancide-89	*(see Captan)*				2115
Vapona	*(see Dichlorvos)*			2133	
VC	*(see Vinyl chloride)*				5518
Vegetable oil	++++++++				1071
Velsicol-104	*(see Heptachlor)*			2149	
Ventrox	*(see Acrylonitrile)*			2009	
Vestinol AH	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Villiaumite	*(see Sodium fluoride)*				4200
Vinegar acid	*(see Acetic acid)*			2101	
Vinicizer 80	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
Vinyl acetate monomer	108054	5000	X		2094
Vinyl benzene	*(see Styrene)*				2086
Vinyl bromide	593602	100	X		6436
Vinyl carbinol	*(see Propargyl alchohol)*			P102	2011
Vinyl chloride	75014	1	X	U043	5518
Vinyl cyanide	*(see Acrylonitrile)*			2009	
Vinylidene chloride	*(see 1,1-Dichloroethylene)*				2095
Vinylnorbornene	3048644				6438
Vinyl trichloride	*(see 1,1,2-Trichloroethane)*				2090
W					
Warfarin	81812	100		P001	----
Warfarin sodium	129066	1	X		----
Wemcol	*(see Isopropylbiphenyl)*				----
White arsenic	*(see Arsenic trioxide)*				3320
White copperas	*(see Zinc sulfate)*			4430	
White phosphorus	*(see Phosphorus)*				2181
White tar	*(see Naphthalene)*				2165
White vitriol	*(see Zinc sulfate)*			4430	
Wintergreen oil	*(see Methyl salicylate)*				----
Witcizer 312	*(see 1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)]ester)*				5028
X					
Xylene	1330207	100	X	U239	2096
Xylene, m-	108383	1000	X	U239	2096
Xylene, o-	95476	1000	X	U239	2096
Xylene, p-	106423	100	X	U239	2096

Chemical Name	CAS#	CERCLA RQ	SARA 313	RCRA CODE	TNRCC CODE
Xylenol	1300716	1000			2211
Xylol	*(see Xylene)*				2096
Xylylene dichloride	28347139	1			----
Z					
Zectran	*(see Mexacarbate)*				2212
Zinc	7440666	1000	X		----
Zinc acetate	557346	1000			4290
Zinc ammonium chloride	14639986	1000			4300
Zinc ammonium chloride	52628258	1000			4300
Zinc ammonium chloride	14639975	1000			4300
Zinc borate	1332076	1000			4310
Zinc bromide	7699458	1000			4320
Zinc carbonate	3486359	1000			4330
Zinc chloride	7646857	1000			4340
Zinc cyanide	557211	10		P121	4350
Zinc, dichloro(4,4-dimethyl-5((((methylamino)carbonyl)oxy)i	58270089	1			----
Zinc fluoride	7783495	1000			4360
Zinc fluorosilicate	*(see Zinc silicofluoride)*				4420
Zinc formate	557415	1000			4370
Zinc hydrosulfite	7779864	1000			4380
Zinc nitrate	7779886	1000			4390
Zinc phenolsulfonate	127822	5000			4400
Zinc phosphide	1314847	100		P122	4410
Zinc silicofluoride	16871719	5000			4420
Zinc sulfate	7733020	1000			4430
Zinc sulfocarbolate	*(see Zinc phenolsulfonate)*				4400
Zinc vitriol	*(see Zinc sulfate)*			----	
Zineb	12122677		X		----
Zirconium nitrate	13746899	5000			4440
Zirconium potassium fluoride	16923958	1000			4450
Zirconium sulfate	14644612	5000			4460
Zirconium tetrachloride	10026116	5000			4470

Calculations, Conversions, and Formulas

This page left intentionally blank.

Calculations, Conversions, and Formulas

Calculations

Area of a circle:	πr^2	where r = radius of circle
Circumference of circle:	$2\pi r$	where r = radius of circle
Volume of cylinder or tank:	$\pi r^2 h$	where r = radius of cylinder and h = height

Common Conversions

1 acre	=	43,560 square feet
1 acre-foot	=	43,560 ft^3
1 centimeter	=	0.3937 inch
1 cubic centimeter	=	0.0610 cubic inch
1 cubic foot of liquid	=	7.48 gallons
1 cubic foot of soil	=	100 pounds (an assumption used by ERU for waste disposal)
1 cubic foot of water	=	62.4 pounds
1 cubic foot per second	=	646,300 gallons per 24 hours
1 cubic foor per second	=	449 gallons per minute
1 cubic inch	=	16.387 cubic centimeters
1 gallon	=	231 cubic inches
1 gallon of water	=	8.34 pounds
1 gallon	=	3.785 liters
1 grain per gallon	=	17.12 parts per million
1 horsepower	=	33,000 foot-pounds per minute
1 horsepower	=	2547 BTU per hour
1 horsepower	=	746 watts
1 kilowatt hour	=	1.34 horsepower
1 liter	=	0.2642 gallon
1 liter	=	1.057 quarts
1 liter	=	61.02 cubic inches
1 milligram per liter	=	1 part per million
1 million gallons per 24 hours	=	1.547 cubic feet per second
1 million gallons per 24 hours	=	694 gallons per minute
1 part per million	=	0.0584 grain per gallon
1 part per million	=	8.34 pounds per million gallons
1 percent	=	10,000 parts per million
1 pound per 1,000 gallons	=	120 parts per million
1 pound per million gallons	=	0.1198 part per million
1 quart	=	0.946 liter
barrel (oil)	=	42 U.S. gallons

barrel (chemical)	=	55 U.S. gallons
barrel (beer)	=	31 U.S. gallons
centimeter	=	0.3937 inch or 0.0328 foot
cubic foot	=	0.02832 cubic meter
cubic meter	=	35.31 cubic feet
gram (“g”)	=	0.0353 ounce
gram (“g”)	=	15.432 grains
horsepower	=	0.746 kilowatt
inch	=	2.54 centimeters
kilogram (“kilo”)	=	2.205 pounds 27.27 ounces
kilometer	=	0.621 mile
kilowatt	=	1.341 horsepower
knot	=	1.151 miles per hour
meter	=	3.28 feet or 39.37 inches
mile	=	1.609 kilometers
ounce (“oz”)	=	0.02835 kilogram
ounce (“oz”)	=	28.3495 grams
pound (“lb”)	=	0.454 kilogram
pound (“lb”)	=	453.6 grams
pound (“lb”)	=	7,000 grains
square meter	=	1.196 square yards
square yard	=	0.8361 square meter

Formulas Area

acres × 0.004047	=	square kilometers
acres × 0.4047	=	hectares
hectare × 2.471	=	acres
square centimeters × 0.155	=	square inches
square centimeters ÷ 6.451	=	square inches
square kilometers × 0.386	=	square miles
square kilometers × 247.1	=	acres
square meters × 10.764	=	square feet
square miles × 2.59	=	square kilometers
square millimeters × 0.00155	=	square inches
square millimeters ÷ 645.1	=	square inches

Formulas Distance

centimeters × 0.3937	=	inches
centimeters ÷ 2.54	=	inches
kilometers × 0.6214	=	statute miles

kilometers × 0.5396	=	statute miles
kilometers ÷ 1.6093	=	miles
kilometers × 3280.8693	=	feet
meters × 3.281	=	feet
meters × 39.37	=	inches
meters × 1.094	=	yards
millimeters × 0.03937	=	inches
millimeters ÷ 25.4	=	inches
nautical miles × 1.1516	=	statute miles
nautical miles × 6,076	=	feet
nautical miles × 1.852	=	kilometers
rods × 16.5	=	feet
yards × 0.9144	=	meters

Formulas Flow Rate

cubic feet per minute × 472	=	cubic centimeters per second
cubic feet per minute × 0.1247	=	gallons per second
cubic feet per minute × 0.4720	=	liters per second
cubic feet per minute × 62.4	=	pounds of water per minute
cubic yards per minute × 0.45	=	cubic feet per second
cubic yards per minute × 3.367	=	gallons per second
cubic yards per minute × 12.74	=	liters per second
gallons per minute × .002228	=	cubic feet per second
gallons per minte × 0.06308	=	liters per second

Formulas Pressure

atmospheres × 76	=	centimeters of mercury
atmospheres × 29.92	=	inches of mercury
atmospheres × 33.90	=	feet of water
atmospheres × 10.333	=	kilograms per square meter
atmospheres × 14.70	=	pounds per square inch
atmospheres × 1.058	=	tons per square foot
cms of mercury × 0.01316	=	atmospheres
cms of mercury × 0.4461	=	feet of water
cms of mercury × 135	=	kilograms per square meter
cms of mercury × 27.85	=	pounds per square foot
cms of mercury × 0.1934	=	pounds per square inch

Formulas Speed/Velocity

cms per second × 1.969	=	feet per minute
cms per second × 0.03281	=	feet per second
cms per second × 0.036	=	kilometers per hour
cms per second × 0.02837	=	miles per hour
knots × 1.853	=	kilometers per hour
knots × 1.51	=	statute miles/hour
miles (statute)/hour × 0.8684	=	knots
miles per hour × 44.70	=	centimeters per second
miles per hours × 98	=	feet per minute
miles per hour × 1.467	=	feet per second
miles per hour × 1.6093	=	kilometers per hour
miles per hour × 0.8684	=	knots
miles per hour × 26.82	=	meters per minute

Formulas Temperature

(°F – 32) × 5/9	=	°C
(°C × 1.8) + 32	=	°F

Formulas Volume

barrels (oil) × 42	=	U.S. gallons
barrels (chemical) × 55	=	U.S. gallons
barrels (beer) × 31	=	U.S. gallons
barrels (oil) × 35	=	imperial gallons
bushels × 1.244	=	cubic feet
bushels × 2150	=	cubic inches
bushels × 0.03524	=	cubic meters
bushels × 4	=	pecks
bushels × 64	=	pints (dry)
bushels × 32	=	quarts (dry)
cubic centimeters ÷ 16.383	=	cubic inches
cubic centimeters ÷ 3.69	=	fluid drams
cubic centimeters ÷ 29.57	=	fluid ounces
cubic feet × 7.481	=	U.S. gallons
cubic feet × 1728	=	cubic inches
cubic feet × 62.43	=	pounds of water
cubic feet × 0.03704	=	cubic yards
cubic feet × 28.32	=	liters
cubic feet × 59.84	=	pints (liquid)

cubic feet × 29.92	=	quarts (liquid)
cubic inches × 16.39	=	cubic centimeters
cubic meters × 264.2	=	U.S. gallons (231 cubic inches)
cubic meters × 35.315	=	cubic feet
cubic meters × 1.308	=	cubic yards
gallons × 8.345	=	pounds of water
gallons × 3785	=	cubic centimeters
gallons × 0.1337	=	cubic feet
gallons × 231	=	cubic inches
gallons × 3.785	=	liters
gallons × 8	=	pints (liquid)
gallons × 4	=	quarts (liquid)
liters × 61.022	=	cubic inches
liters × 33.84	=	fluid ounces
liters × 0.2642	=	gallons
liters ÷ 3.78	=	gallons
metric tons × 294	=	U.S. gallons
pints (dry) × 33.60	=	cubic inches
pints (liquid) × 28.87	=	cubic inches
U.S. gallons × 0.833	=	imperial gallons
U.S. gallons × 3.785	=	liters
U.S. gallons × 0.0238	=	barrels (oil)
U.S. gallons × 0.0034	=	metric tons

Glossary of Commonly Used Environmental Acronyms

This page intentionally left blank.

Glossary of Commonly Used Environmental Acronyms

A

AA—assistant administrator (Environmental Protection Agency)
ACFM—actual cubic feet per minute
ACGIH—American Conference of Governmental Industrial Hygienists
ACQUIRE—aquatic information retrieval
AEA—Atomic Energy Act
AEM—acoustic emission monitoring
AGO—Office of the Attorney General (Texas)
AIHA—American Industrial Hygiene Association
AIP—autoignition point
AL—acceptable level
ALP—aluminum phosphide
ALS—Advanced Life Support
A&M—Texas A&M University Engineering Extension Service
AMS—American Meteorological Society
AMS—ammonium sulfamate
ANSI—American National Standards Institute
ANTU—N-(1-naphthyl)-2-thiourea
APO—tris(aziridinyl)phosphine oxide
APV—Carbitol
ARAR—applicable or relevant and appropriate requirements
ARCS—alternative remedial contracting strategy
ATSDR—Agency for Toxic Substances and Disease Registry

B

BaP—benzo(a)pyrene
BAT—best available treatment
BARF—basic aircraft rescue and firefighting
BDAT—best demonstrated available technology
BEHP—1,2-benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester
BG—billion gallons
BHC—benzene hexachloride
BH MCPA—(4-chloro-2-methylphenoxy)acetic acid
BLM—Bureau of Land Management
BLOB—biologically liberated organo-beasties
BLS—basic life support
BM—Bureau of Mines
BOD—biochemical oxygen demand

BOD—biological oxygen demand
BSO—benzene-soluble organics

C
C—Celsius (degrees)
CAA—Clean Air Act
CAB—Civil Aeronautics Board
CAD—computer-assisted design
CAD—computer-aided dispatch
CAER—community awareness and emergency response
CAG—cancer assessment group
CAP—criteria air pollutant
CAS—Chemical Abstract Service
CAU—carbon adsorption unit
CBD—Commerce Business Daily
CDC—Centers for Disease Control
CDD—chlorinated dibenzo-p-dioxin
CDF—chlorinated dibenzofuran
CEPP—Chemical Emergency Preparedness Plan
CERCLA—Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS—CERCLA Information System
CERI—Center for Environmental Research Information
CEU—continuing education units
CFC—chlorofluorocarbons
CFM—chlorofluoromethanes
CFM—cubic feet per minute
CFR—Code of Federal Regulations
CFS—cubic feet per second
CHEMTREC—Chemical Transportation Emergency Center
CHRIS—Chemical Hazard Response Information System
CI—compression ignition
CM—corrective measure
CMA—Chemical Manufacturers Association
CMB—chemical mass balance
COD—chemical oxygen demand
COE—United States Army Corps of Engineers
CPF—carcinogenic potency factor
CRS—Congressional Research Services
CWA—Clean Water Act

D
DDD—1,1-bis(4-chlorophenyl)-2,2-dichloroethane
DDE—2,2-bis(p-chlorophenyl)-1,1-dichloroethylene
DDT—dichlorodiphenyltrichloroethane

DE—destruction efficiency
DEG—diethylene glycol
DEHP—1,2-benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester
DEM—Governor's Division of Emergency Management (Texas)
DES—diethylstilbesterol
DMDT—dimethoxy-DDT
DMU—3-(3,4-dichlorophenyl)-1,1-dimethylurea or 1,3-dimethylolurea
DNA—deoxyribonucleic acid
DNTP—parathion
DO—dissolved oxygen
DOA—United States Department of Agriculture
DOC—United States Department of Commerce
DOD—United States Department of Defense
DOE—United States Department of Energy
DOI—United States Department of the Interior
DOJ—United States Department of Justice
DOL—United States Department of Labor
DOP—bis(2-ethylhexyl) phthalate
DOT—United States Department of Transportation
DPS—Texas Department of Public Safety
DRE—destruction removal and efficiency
DRMS—Defense Reutilization and Marketing Service
DTBP—tert-butyl peroxide
DTMC—1,1-bis(p-chlorophenyl)-2,2,2-trichloroethanol
DWS—Drinking Water Standards

E
EC—effective concentration
EDB—ethylene dibromide
EDC—ethylene dichloride
EDTA—ethylenediaminetetraacetic acid
EENET—Emergency Education Network (FEMA)
EL—exposure level
EO—ethylene oxide
EOC—Emergency Operations Center (Texas)
EPA—United States Environmental Protection Agency
EPD—Emergency Planning District
EPN—ethoxy-4-nitrophenoxyphenylphosphine sulfide
EPTC—Extraction Procedure Toxicity Characteristics
ERCS—Emergency Response Cleanup Systems (EPA)
ERT—Environmental Response Team (EPA)
ERT—Emergency Response Team (Texas Natural Resource Conservation Commission)
ESA—Endangered Species Act
ESA—environmental site assessment

F

F—Fahrenheit (degrees)
FAA—Federal Aviation Administration
FAM—friable asbestos material
FCO—federal coordinating officer
FE—fugitive emissions
FEA—Federal Energy Administration
FEMA—Federal Emergency Management Agency
FID—flame ionization detector
FIFRA—Federal Insecticide, Fungicide, and Rodenticide Act
FIT—field investigation team
FLP—flash point
FML—flexible membrane liner
FOIA—Freedom of Information Act
FP—fine particulate
FPA—Federal Pesticide Act
FPD—flame photometric detector
FR—*Federal Register*
FS—feasibility study
FWPCA—Federal Water Pollution Control Act (Clean Water Act or CWA)
FWS—U.S. Fish and Wildlife Service

G

GAC—granular activated carbon
GACT—granular activated carbon treatment
GC—gas chromatograph
GC/MS—gas chromatograph/mass spectrometer
GIS—Geographic Information System
GLO—General Land Office (Texas)
GPAD—gallons per acre per day
GPG—grams per gallon
GPR—ground-penetrating radar
GW—groundwater
GWA—Groundwater Act of 1987
GWM—groundwater monitoring

H

HA—health assessment
HAZMAT—hazardous material
HC—hydrocarbon
HCCPD—hexachlorocyclopentadiene
HDPE—high-density polyethylene
HEM—human exposure modeling
HEX-BCH—hexachloronorbornadiene

HHDN—4-amino-3-hydroxybiphenyl sulfate
HHE—human health and the environment
HHS—United States Department of Health and Human Services
HI—hazard index
HMTA—Hazardous Materials Transportation Act
HOC—halogenated organic compounds
HRS—Hazard Ranking System
HSWA—Hazardous and Solid Waste Amendments (to RCRA, 1984)
HTP—high temperature and pressure
HVIO—high-volume industrial organics

I
IAP—indoor air pollution
IARC—International Agency for Research on Cancer
ICS—Incident Command System
IDLH—immediately dangerous to life and health
IFB—invitation for bids
IP—inhalable particles
IR—infrared
IUPAC—International Union of Pure and Applied Chemists

J
JIC—Joint Information Center
JP—jet petroleum or jet fuel

L
LC—lethal concentration
LD_{50}—low dose where 50 percent of test population dies
LEL—lower explosive limit
LEPC—local emergency planning committee
LFL—lower flammability limit
LLRW—low-level radioactive waste
LNG—liquified natural gas
LOAEL—lowest observed adverse effect level
LOEL—lowest observed effect level
LPG—liquified petroleum gas
LUST—leaking underground storage tank

M
MATC—maximum allowable toxicant concentration
MBI—methylene bis(phenylisocyanate)
MCL—maximum contaminant level
MCLG—maximum contaminant level goal
MCP/MCPA—(4-chloro-2-methylphenoxy)acetic acid

MDA—methylenedianiline
MDI—diphenylmethane diisocyanate
MDL—method detection limit
MEA—monoethanolamine
MEK—methyl ethyl ketone
MGD—million gallons per day
MIBK—methyl isobutyl ketone
MIC—methyl isocyanate
MMH—methylhydrazine
MOA—memorandum of agreement
MOI—memorandum of intent
MOU—memorandum of understanding
MP—melting point
MPRSA—Marine Protection, Research, and Sanctuaries Act
MSDS—Material Safety Data Sheet
MSHA—Mine Safety and Health Administration
MSL—mean sea level
MSW—municipal solid waste
MTBE—methyl tert-butyl ether
MTD—maximum tolerated dose
MW—molecular weight

N
NAS—National Academy of Sciences
NBAR—nonbinding preliminary
NCA—Noise Control Act
NCI—National Cancer Institute
NCP—*National Oil and Hazardous Substances Pollution Contingency Plan*
NDS—National Dioxin Study
NFPA—National Fire Protection Association
NIMBY—"not in my backyard" syndrome
NIOSH—National Institute of Occupational Safety and Health
NMFS—National Marine Fisheries Service
NMHC—nonmethane hydrocarbons
NMOC—nonmethane organic compounds
NMP—N-methylpyrrolidinone
NMR—nuclear magnetic resonance
NOAA—National Oceanic and Atmospheric Administration
NOAEL—"no observed adverse effect" level
NOV—notice of violation
NPDES—National Pollutant Discharge Elimination System
NPL—National Priority List
NRC—Nuclear Regulatory Commission
NRC—National Response Center

NRDA—Natural Resource Damage Assessment
NRT—National Response Team
NSC—National Security Council
NSF—National Science Foundation
NTE—not to exceed
NTIS—National Technical Information System
NWS—National Weather Service

O

O_x—total oxidants
OCS—outer continental shelf
OCSLA—Outer Continental Shelf Lands Act
OERR—Office of Emergency and Remedial Response (EPA)
OHMTADS—Oil and Hazardous Materials Technical Assistance Data System
O&M—operation and maintenance
OPA—Oil Pollution Act of 1990
ORD—Office of Research and Development
ORM—other regulated material
ORP—oxidation-reduction potential
OSC—on-scene coordinator
OSHA—Occupational Safety and Health Administration
OSPRA—Oil Spill Prevention and Response Act of 1991
OSWER—Office of Solid Waste and Emergency Response (EPA)
OTA—Office of Technology Assessment (EPA)

P

PA—preliminary assessment
PAAT—Public Affairs Assist Team (EPA)
PAC—powdered activated carbon
PAH—polynuclear aromatic hydrocarbons
PBB—polybrominated biphenyls
PCB—polychlorinated biphenyls
PCDD—polychlorinated dibenzo-para-dioxin
PCDF—polychlorinated dibenzofurans
PCE—pollution control equipment
PCNB—pentachloronitrobenzene
PCP—pentachlorophenol
PDB/PDCB—p-dichlorobenzene
PEL—permissible exposure limit
PF—protection factor
PIAT—Public Information Assist Team (EPA)
PIC—product of incomplete combustion
PM—project manager
PNA—p-nitroaniline

PNA—polynuclear aromatic hydrocarbons
POE—point of exposure
POHC—principal organic hazardous constituent
POLREP—pollution report
POM—polycyclic organic matter
POTW—publicly owned treatment works
ppb—parts per billion
ppm—parts per million
ppt—parts per trillion
ppth—parts per thousand
PRP—potentially responsible parties
psi—pounds per square inch
PTFE—polytetrafluoroethylene (Teflon)
PVC—polyvinyl chloride

Q
QA/QC—quality assurance/quality control

R
RA—regional administrator (EPA)
RA—remedial action
RA—risk assessment
RAD—radiation absorbed dose
RBC—red blood cells
RBC—rotating biological contactor
RCRA—Resource Conservation and Recovery Act of 1976
RCRIS—RCRA Information System
RD—remedial design
RD&D—research, development, and demonstration
rDNA—recombinant DNA
REMFIT—Field Investigation Team for EPA Remedial Actions
RFD—reference dose values
RFP—request for proposals
RI/FS—remedial investigation/feasibility study
RNA—ribonucleic acid
RO—reverse osmosis
ROD—record of decision
RPM—regional project manager
RQ—reportable quantity
RRC—Railroad Commission of Texas
RRT—Regional Response Team
RTECS—Registry of Toxic Effects of Chemical Substances

S
SARA—Superfund Amendment and Reauthorization Act
SARA Title III—Emergency Planning and Community Right-to-Know Act
SCP—*State of Texas Oil and Hazardous Substances Spill Contingency Plan*
SCS—Soil Conservation Service
SDWA—Safe Drinking Water Act
SERC—State Emergency Response Commission (Texas)
SFM—state fire marshal (Texas)
SIC—standard industrial code
SIIS—Spill Incident Information System (TNRCC)
SITE—Superfund Innovative Technology Evaluation
SOSC—state on-scene coordinator
SPCC—spill prevention, containment, and countermeasures
SQG—small-quantity generator
SSA—sole-source aquifer
SSC—scientific support coordinator
STEL—short-term exposure limit
STORET—storage and retrieval of water-related data
SWDA—Solid Waste Disposal Act

T
TAC—Texas Administrative Code
TAT—Technical Assistance Team (EPA)
TBT—tributyltin
TC—toxic concentration
TCDD—2,3,7,8-tetrachlorodibenzo-p-dioxin (dioxin)
TCDF—tetrachlorodibenzofurans
TCE—trichloroethylene
TCLP—toxicity characteristics leaching procedure
TCP—trichloropropane
TD—toxic dose
TDA—Texas Department of Agriculture
TDE—triethylene glycol diglycidyl ether
TDH—Texas Department of Health
TDI—toluene diisocyanate
TDOT—Texas Department of Transportation
TDS—total dissolved solids
T&E—testing and evaluation facility
TEDP—tetraethyl dithiopyrophosphate
TEF—tris(1-aziridinyl)phosphine oxide
TEG—tetraethylene glycol
TEL—tetraethyllead
TEPA—tris(1-aziridinyl)phosphine oxide
TEPP—tetraethyl pyrophosphate

TERC—Texas Emergency Response Center (TNRCC/ERT)
THM—trihalomethane
TISE— "take it somewhere else" syndrome (see also NIMBY)
TLV—threshold limit value
TMA—trimethylamine
TML—tetramethyllead
TNRCC—Texas Natural Resource Conservation Commission
TNT—trinitrotoluene
TOA—trace organic analysis
TOC—total organic carbon
TOC—total organic compounds
TOX—tetradichloroxylene
TPTH—triphenyltin hydroxide
TPWD—Texas Parks and Wildlife Department
TRI—Toxics Release Inventory
TSCA—Toxic Substances Control Act
TSCC—Toxic Substances Coordinating Committee
TSDF—treatment, storage, and disposal facility
TUHC—total unburned hydrocarbons
TWA—time-weighted average

U
UEL—upper explosive limit
UFL—upper flammability limit
UIC—underground injection control
USC—United States Code
USCA—United States Code Annotated
USCG—United States Coast Guard
USDA—United States Department of Agriculture
USFS—United States Forest Service
USGS—United States Geological Survey
UV—ultraviolet

V
VAM—vinyl acetate monomer
VC—vinyl chloride
VCP—Voluntary Cleanup Program
VOC—volatile organic compound
VP—vapor pressure
VSS—volatile suspended solids

W
WBC—white blood cells
WHO—World Health Organization
WWTP—wastewater treatment plant

Y
YTD—year-to-date