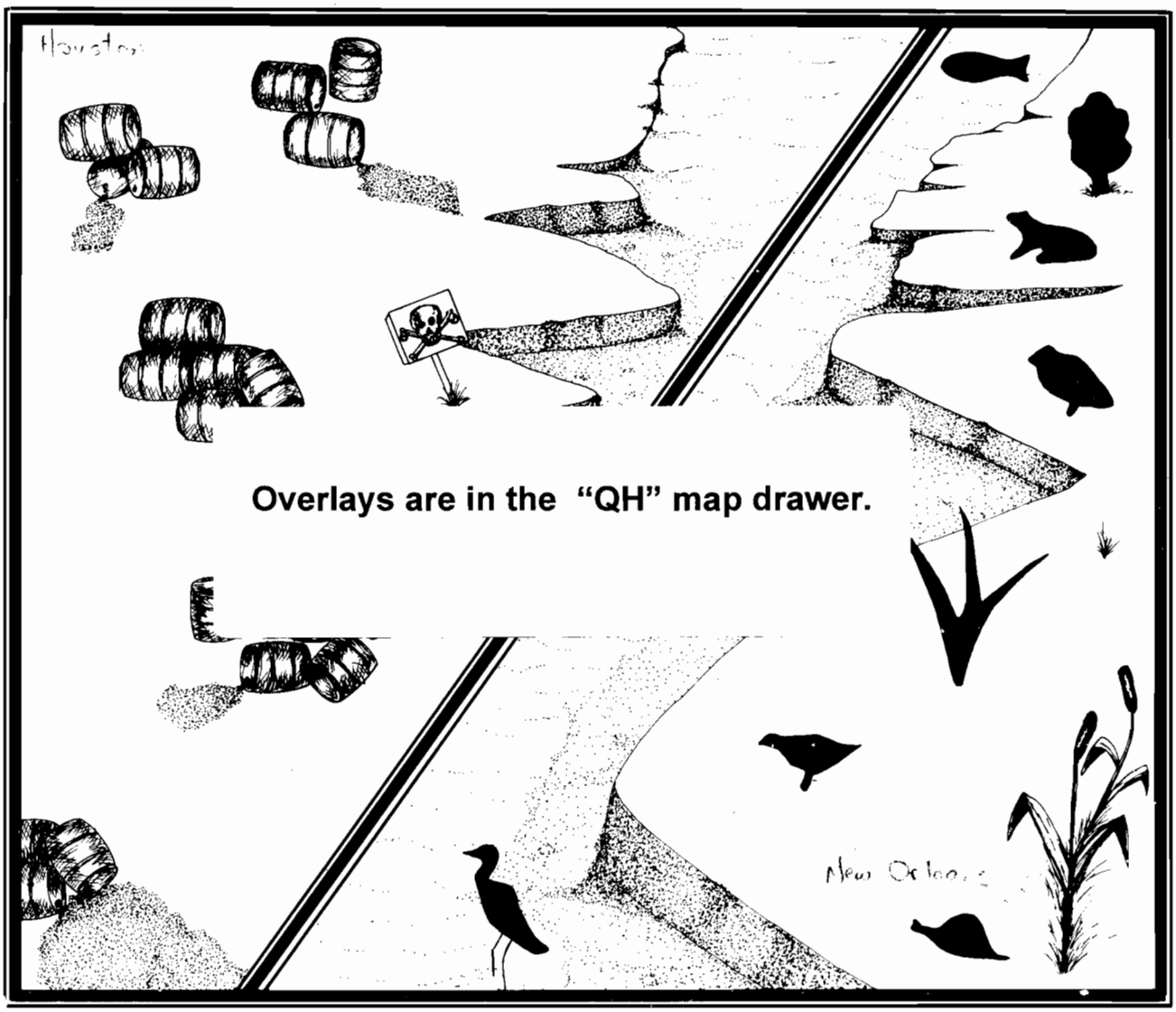
Biological Services Program

FWS/OBS-82/64
September 1982

# INVENTORY OF TOXIC AND HAZARDOUS WASTE DISPOSAL AND DISCHARGE SITES IN THE NEW ORLEANS AND HOUSTON AREAS: USER'S GUIDE




Office of Toxic Substances
U.S. Environmental Protection Agency
and
Fish and Wildlife Service

U.S. Department of the Interior

The Biological Services Program was established within the U.S. Fish and Wildlife Service to supply scientific information and methodologies on key environmental issues that impact fish and wildlife resources and their supporting ecosystems. The mission of the program is as follows:

- To strengthen the Fish and Wildlife Service in its role as a primary source of information on national fish and wildlife resources, particularly in respect to environmental impact assessment.
- To gather, analyze, and present information that will aid decisionmakers in the identification and resolution of problems associated with major changes in land and water use.
- To provide better ecological information and evaluation for Department of the Interior development programs, such as those relating to energy development.

Information developed by the Biological Services Program is intended for use in the planning and decisionmaking process to prevent or minimize the impact of development on fish and wildlife. Research activities and technical assistance services are based on an analysis of the issues, a determination of the decisionmakers involved and their information needs, and an evaluation of the state of the art to identify information gaps and to determine priorities. This is a strategy that will ensure that the products produced and disseminated are timely and useful.

Projects have been initiated in the following areas: coal extraction and conversion; power plants; geothermal, mineral and oil shale development; water resource analysis, including stream alterations and western water allocation; coastal ecosystems and Outer Continental Shelf development; and systems inventory, including National Wetland Inventory, habitat classification and analysis, and information transfer.

The Biological Services Program consists of the Office of Biological Services in Washington, D.C., which is responsible for overall planning and management; National Teams, which provide the Program's central scientific and technical expertise and arrange for contracting biological services studies with states, universities, consulting firms, and others; Regional Staffs, who provide a link to problems at the operating level; and staffs at certain Fish and Wildlife Service research facilities, who conduct in-house research studies.

U.S. FISH & WILDLIFE SERVICE
National Wetlands Research Center
NASA - Slidell Computer Complex
1010 Gause Boulevard
Slidell, LA 70458

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by

Dames & Moore
Suite 700
7101 Wisconsin Avenue
Bethesda, MD 20814

Larry R. Shanks
Project Officer
U.S. Fish and Wildlife Service
National Coastal Ecosystems Team

Contract Number 14-16-0009-81-063

Dr. Ron Eisler
Project Officer
U.S. Fish and Wildlife Service
Environmental Contaminants Evaluation

Dr. James Gilford
Project Officer
U.S. Environmental Protection Agency

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# PREFACE

The U.S. Department of the Interior (USDI) and the Fish and Wildlife Service (FWS) have played major roles in issues involving the siting of coastal energy-related projects. The basis for the Department's position on these types of projects has been the National and regional significance of the fish and wildlife resources at the proposed sites and the susceptibility of these resources to new or added stress.

Given the projected needs for oil- and energy-related facilities along the Gulf coast, as well as the future likelihood for Departmental involvement in siting issues, the Secretary of the Interior "stressed the need for Government to catalogue and inventory our natural resources. The availability of this resource information should help ensure more informed decision making and help avoid resource conflicts." (USDI New Release, 3 December 1981). In addition, the Council on Environmental Quality has explored what Federal agencies might do to provide advance information on the environmental sensitivity of various coastal areas to the impacts of major energy facilities.

The original objective was to produce an inventory of those important ecological resources along the Gulf coast on which coastal siting of refineries, petrochemical, and gas or liquid natural gas facilities could have an impact. The Environmental Protection Agency, as part of their "birth to death" program of tracking toxic and hazardous materials, was interested in the feasibility of developing a prototype map which could be used in conjunction with the ecological inventory data base. The New Orleans, Louisiana, and Houston, Texas, areas were selected to demonstrate the technique of displaying toxic and hazardous waste disposal and point source discharge sites on overlays keyed to the 1:250,000-scale ecological inventory maps.

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Valuable information, which was key to the accomplishments of this prototype effort, was contributed by several Federal and state agencies, including experts from the U.S. Environmental Protection Agency, Region 6; the Louisiana Department of Natural Resources; and the Texas Department of Water Resources. We sincerely thank all information contributors.

# PART 1

# INTRODUCTION

## 1.1 BACKGROUND

Recent developments, such as a new Federal emphasis on the deregulation of industries and an accelerated Outer Continental Shelf (OCS) oil and gas leasing program, have increased the need for advanced planning in siting Gulf coast energy facilities. The U.S. Department of the Interior and the Fish and Wildlife Service (FWS) have played major roles in issues involving large coastal projects. Given the projected needs for oil and gas exploration and production and support facilities along the Gulf coast, as well as the likelihood of future Department involvement in siting issues, the FWS has conducted an ecological inventory to assist industries in their advanced planning and evaluation procedures. FWS's intent was to lessen the chance for serious disputes during the later permit review evaluation process.

## 1.2 PURPOSE AND SCOPE

One of the tasks of the Gulf coast ecological inventory was concerned with developing a methodology for displaying information on point source discharge and disposal sites of toxic and hazardous wastes for selected areas of the Gulf coast. This particular effort was undertaken with the technical support of the U.S. Environmental Protection Agency (EPA). The areas selected for this test case application were those covered by the New Orleans, Louisiana, and Houston, Texas, 1:250,000-scale map sheets.

The primary purpose of this study is to demonstrate the feasibility of displaying discharge and disposal sites on special-purpose overlays keyed to the ecological resource maps of the New Orleans and Houston areas. These areas were selected for study because they are characterized by a diversity of ecological resources and by heavy concentrations of industry, particularly petroleum refining, petrochemical and chemical manufacturing, and related utilities.

Use of these toxic waste disposal and point source discharge overlays, in conjunction with the corresponding ecological resource maps, provides the planner with a better understanding of the ecological impacts and environmental sensitivity of siting new energy facilities in coastal areas. This information will enable planners to avoid areas where an increase in disposal or discharge activities potentially could result in the increased susceptibility of biological resources to further environmental stress.

In certain cases, facilities which appear on either the active or inactive site printouts obtained from EPA were not included on the map sheets. This was due to either of two reasons--the facility in question is located in a county

which appears on the map sheet but is not located in the section of the county covered by the map sheet, or the facility in question is not a land disposal facility.

## 1.3 STUDY ASSUMPTIONS

Due to the evolving nature of waste and pollutant regulation at the state and Federal levels, the state-of-the-art in waste management and pollution abatement technology, and the magnitude of potential sites involved in waste disposal and discharge, certain assumptions were made at the initiation of this study so as to present only the most useful information.

For the purposes of displaying land disposal facilities, it was determined that "toxic and hazardous wastes" would include those wastes defined as hazardous under the Resource Conservation and Recovery Act of 1976 (RCRA). Wastes that currently are exempt from RCRA--such as mining wastes, drilling muds and brines, and agricultural wastes--and other wastes that do not meet the RCRA characteristics or listings were excluded from the study.

"Disposal site" was interpreted as any site at which hazardous wastes are placed directly on or into the ground. This includes landfills, surface impoundments, waste piles, injection wells, land treatment facilities, and drainage fields, but excludes facilities such as container storage areas, storage or treatment tanks, and incinerators. It is recognized that certain of the mapped facilities may be fully lined (such as some surface impoundments) and may not be disposing of any waste or leachate into the soil below the facility. However, these facilities have been included due to the differing qualities of liners and other containment systems, and because waste can be left in these impoundments at the closure of the facilities.

"Dischargers" was defined as those facilities with permits under either a state or Federal program. Insufficient data exist on potential dischargers outside the permit system to make portrayal of these sites valuable.

## 1.4 FEASIBILITY OF EXPANDING THIS MAPPING PROGRAM

An examination of the New Orleans and Houston overlays indicates that toxic and hazardous waste information can be depicted successfully at a mapping scale of 1:250,000. Although a unique map symbol cannot be shown for many of the sites, the overall mapping remains readable and can be used readily in conjunction with the ecological resource data shown on the inventory maps.

However, the depiction of disposal sites and discharge locations on a 1:250,000-scale map has limited usefulness when examined separately. The small scale precludes the depiction of:

- Individual sites
- Site extent
- Site-specific data such as outfall volume.

Available location data for disposal and discharge sites are considerably more specific than can be shown on the maps at the present scale. In addition, the small scale does not allow for the depiction of varying sizes of land disposal facilities--a 400-acre landfill and a 1,000-gallon surface impoundment are shown with the same symbol, whereas their surficial extent could be portrayed on a larger scale map. The small scale also does not allow for varying the size of the map symbols; for instance, several symbol sizes could be used to display ranges in pollutant volume discharge at various outfalls.

It would be more feasible to display this type of additional information at a larger scale where more details can be presented. A suggested scale for depicting toxic and hazardous waste disposal and discharge sites is 1:24,000. Base maps at this scale currently exist over most areas as part of the U.S. Geological Survey's (USGS) National Topographic Map Series.

# PART 2

# USER'S GUIDE

## 2.1 THE TOXIC AND HAZARDOUS WASTE OVERLAYS

The purpose of the toxic and hazardous waste overlays is to provide basic information on the locations of toxic and hazardous waste discharge and disposal sites in the areas of New Orleans, Louisiana, and Houston, Texas. The overlays are intended to assist the user in the initial planning of energy facilities by showing the location and occurrence of existing toxic and hazardous waste disposal and point source discharge sites.

The toxic and hazardous waste overlays have been designed so that they can be used with the standard 1:250,000-scale USGS National Ecological Map Series maps of New Orleans, Louisiana, and Houston, Texas. Due to the maps' small scale, all sites are shown as numbered point features.

Discharge and disposal sites shown on the overlays are divided into three general categories, each represented by a pictorial symbol--point source discharge sites, active waste disposal sites, and inactive waste disposal sites. A number follows each symbol on the map and refers to a particular discharger/disposer in the discharge and disposal sites key, which appears in the left-hand frame margin of each overlay. This key also indicates the major effluent at each location when available. For additional information, the user should consult the tables included in this report and the sources listed in the accompanying bibliography.

## 2.2 HOW TO USE THE ECOLOGICAL INVENTORY MAPS

The standard 1:250,000-scale National Ecological Map Series quadrangles of New Orleans and Houston are part of the Gulf coast ecological inventory. They have been designed for use either independently or in association with the report, Gulf Coast Ecological Inventory: User's Guide and Information Base. The reader should pay attention to the legend and explanatory text while using the inventory maps.

The frame portion of each map contains a comprehensive legend and supplemental information, showing symbols, colors, patterns and lines, and alphanumeric descriptors, each representing a specific biological resource, habitat, or special land use feature. The base map information from the standard 1:250,000-scale National Topographic Map Series also has been retained for the inventory. Table 1 summarizes the types of cultural and ecological information shown on the inventory maps.

The Gulf coast ecological inventory includes the total area shown on each map sheet and is not limited to the narrow coastal zone, as were the Atlantic and Pacific coast inventory maps (available from the USGS as part of the

National Ecological Map Series). However, for ease of identification, the inland and seaward boundaries of the coastal zone are framed by a wide hatched line pattern. Inland or land portions of the coastal zone are printed in yellow, and seaward or water portions are printed in light blue.

The ecological information shown on the inventory maps may be divided into three general categories (see Table 1)--land use/land cover, aquatic organisms, and terrestrial organisms.

### 2.2.1 Land Use/Land Cover

Special land use areas, such as national wildlife refuges, national parks, state parks, and state wildlife management areas, always are shown with a gray boundary and light green tint. Depending on its size, a special land use area can appear as either a small circle centered over the area's location or as the official boundary of the area. A special land use area always is identified on the inventory maps by its official name, for example, Everglades National Park in Florida, Edward Douglass White State Commemorative Area in Louisiana, and Brazos Island State Recreation Area in Texas.

Land cover features appearing on the inventory maps are marshes or swamps, beaches/dunes, seagrass beds, and reefs. Marshes or swamps are identified by a screen pattern and overprinted with light blue. Beaches/dunes, seagrass beds, and reefs are depicted by individual patterns overprinted in gray.

### 2.2.2 Aquatic Organisms

Aquatic organisms are identified on the inventory maps by a variety of line widths, symbols, numbers, and letter designators. Aquatic organisms, including plants, invertebrates, fish, reptiles and amphibians, and mammals, usually are shown in blue unless the particular species has special status. Species with special status--that is, those species which are endangered or threatened--always are shown in red on the inventory maps.

Local concentrations of aquatic organisms are identified by a point feature (a solid dot of appropriate color); larger areas of concentration are delineated by an enclosed boundary; and estuarine and riverine habitats are differentiated by line symbols of varying widths. These line symbols can be solid, dashed, or dotted, depending on the salinity range in an area. For example, a heavy solid line shown in an estuary signifies a high-salinity habitat; sequential dashed, narrow solid, and dotted lines indicate progressively lower salinity habitats. Point features, the boundary lines enclosing area features, and estuarine and riverine habitat line symbols are shown in blue, unless the particular species has special status, in which case the point, boundary, or line features always are highlighted in red.

The classification scheme used on the inventory maps to identify a specific aquatic species and its corresponding habitat use consists of a generalized pictorial symbol, a number, and one or more lowercase letters. The pictorial symbol denotes one of five general aquatic classes; the number refers to the individual species or group from the species list, which appears in the right-hand frame margin of each inventory map; and the lowercase letters (a through h and w through z) refer to the specific habitat use of the particular species and the time of year the species is present.

A representative example, showing the manner in which this classification scheme is used on the maps to identify a specific aquatic species and its habitat use designation, is shown below:.

Shown in blue

Fish
Species: blue catfish
121abgh
Habitat use: breeding and nursery area, commercial and sportfishing area

2.2.3 Terrestrial Organisms

Terrestrial symbols are identified on the inventory maps by a variety of symbols, numbers, and letter designators. Terrestrial organisms, including plants, invertebrates, birds, reptiles and amphibians, and mammals, usually are shown in brown unless the particular species has special status. Species with special status--that is, species which are endangered or threatened--always are shown in red on the inventory maps.

Local concentrations of terrestrial organisms are identified by a point feature (a solid dot of appropriate color); larger areas of concentration are delineated by an enclosed boundary. Point features and boundary lines enclosing area features are shown in brown, unless the particular species has special status, in which case the point or boundary features always are highlighted in red.

The classification scheme used on the inventory maps to identify a specific terrestrial species and its corresponding habitat use consists of a generalized pictorial symbol, a number, and one or more lowercase letters. The pictorial symbol denotes one of four general terrestrial classes or six bird subclasses; the number refers to the individual species or group from the species list, which appears in the right-hand frame margin of each inventory map; and the lowercase letters (a through h and w through z) refer to the specific habitat use of the particular species and the time of year the species is present.

Representative examples, showing the manner in which this classification scheme is used on the maps to identify a specific terrestrial species and its habitat, are shown below:

Always shown in red

Raptors
Species with special status: bald eagle
707ac
Habitat use: breeding area, adult concentration area

Shown in brown

Waterfowl
Species: anhinga
654aw
Habitat use: breeding area, spring

Mammals
Species: whitetail deer
906ch
Habitat use: adult concentration area, hunting area

## 2.3 HOW TO USE THE GRID REFERENCE SYSTEM

Each inventory map contains the standard UTM grid system, made up of a network of 10,000-meter vertical and horizontal grid lines keyed to corresponding grid reference numbers. The legend block in the frame portion of each map identifies the map's grid zone designation, the 100,000-meter square identification for each map area, and a set of general instructions on how to use the UTM grid reference system.

In this inventory, the UTM grid reference system is used to identify the geographic location of biological resources. Specifically, the 10,000-meter grid lines, consisting of a series of alphanumeric reference points, provide the basic location system for describing the biological resources within discrete intervals, or swaths, along the Gulf coast. The north-south or vertical grid lines are used to subdivide sections of the generally east-west trending coasts of the New Orleans, Louisiana, and Houston, Texas, quadrangles. Two vertical grid lines define a swath generally perpendicular to the coast. The swath locates geographically the biological resources to be described.

UTM grid locations are identified by their alphanumeric designators, consisting of two letters followed by two numbers (for example, grid reference YC79 or TD90). The two letters of the grid reference designator identify the appropriate 100,000-meter square in which the biological resource occurs; the two numbers refine the location of the feature to the nearest 10,000-meter square. The first number identifies the north-south or vertical grid line; the second number designates the intersecting west-east or horizontal grid line. The vertical grid line always is located to the left, or west, of the feature being described; the intersecting horizontal grid line always is located below, or south, of the feature of interest.

Two representative examples of how to use the UTM grid reference system are presented below.

Example 1

Map: Houston, TX
Species of interest: Blue crabs
Identify appropriate 100,000-meter square (legend block): UC
Locate 10,000-meter vertical grid number (always to left of point): 2
Locate 10,000-meter horizontal grid number (always below point): 5
The location is identified in the report as grid reference UC25.

Example 2

Map: New Orleans, LA
The location is identified in the report as grid reference YD62.
Consult UTM legend block to identify appropriate 100,000-meter square: YD
Locate 10,000-meter vertical grid number (always to left of point): 6
Locate 10,000-meter horizontal grid number (always below point): 2

The grid reference refers to the location of the bald eagle nest at the end of the New Orleans International Airport runway.

Table 1. Summary of information shown on Gulf coast ecological inventory maps.

Base Map

- Water features (oceans, lakes, rivers, canals)
- Cultural features (roads, railroads, airfields, civil boundaries)
- Cartographic information (map sheet name, scale, location diagram, UTM grid system)

Land Use/Land Cover

- Coastal zone boundary and Federal-state demarcation
- Special land use areas (refuges, wildlife management areas, national or state parks, etc.)
- Marsh or Swamp
- Beach/Dunes
- Seagrass
- Reef

Aquatic Organisms

- Estuarine and riverine areas, indicated by lines depicting high, middle, and low salinity, and freshwater habitats
- Point and area boundaries showing locations and concentrations of aquatic organisms, including species that are threatened or endangered
- Symbol, number, and letter designators identifying general class, species or group, and habitat use for aquatic organisms
- Comprehensive species list keyed to five general classes of aquatic organisms (plants, invertebrates, fish, reptiles and amphibians, and mammals)

Terrestrial Organisms

- Point and area boundaries showing locations and concentrations of terrestrial organisms, including species that are threatened or endangered

Table 1 (concluded).

Terrestrial Organisms (cont'd)

- Symbol, number, and letter designators identifying general class, species or group, and habitat use for terrestrial organisms
- Comprehensive species list keyed to five general classes of terrestrial organisms (plants, invertebrates, birds, reptiles and amphibians, and mammals), including six subclasses of birds (shorebirds, wading birds, waterfowl, raptors, seabirds, and songbirds and others)

Notebox

- Special explanatory text, appearing in the map area or frame border, which supplements the biological and land use information shown on the corresponding inventory map

# PART 3

# TOXIC AND HAZARDOUS WASTE DISPOSAL AND DISCHARGE SITES

## 3.1 GENERAL DESCRIPTION OF INDUSTRIES IN THE NEW ORLEANS AND HOUSTON AREAS

The metropolitan areas of New Orleans and Houston and the remaining areas covered on the two map sheets have fairly diverse industrial bases. The striking resemblance of commercial and industrial activity in the two areas leads to similar patterns of waste and pollutant generation.

Both areas have large oil and gas drilling operations, as well as a substantial number of refineries and gas processing plants. Houston has the nation's largest concentration of petrochemical plants. Both New Orleans and Houston have sizable production in synthetic polymers, benzene, ethylene, methanol, sulfuric acid, and some phenol and ammonia.

Commercial fishing and food processing are important aspects of New Orleans area commerce; this is also true of Houston to some extent. Also, their port locations lead both areas to significant manufacturing of transportation equipment, especially shipbuilding.

Both the New Orleans and Houston areas are also the sites of many electrical utilities. Paper and allied products, as well as primary metals and fabricated metal products, make a major contribution to the industrial activity in both areas.

A fair amount of mining (mainly sulfur) takes place around both cities. A substantial amount of gravel, clay, and glass also is produced in each of the areas. The Houston area has some iron and steel production and a developing scientific instrument industry.

## 3.2 EXPLANATIONS ACCOMPANYING THE TABULAR DATA

### 3.2.1 Inventory of Point Source Dischargers

Table 2 gives volume and effluent information for each of the industrial dischargers shown on the map sheets. Figures shown for flow, biochemical oxygen demand (BOD), total suspended solids (TSS), and other chemical effluent characteristics are permitted conditions; in some cases, these limits may be exceeded on a certain number of days each month. Thus, the figures are "daily average" permit limitations, rather than "daily maximum" conditions.

The following definitions should serve to explain the terms used on Table 2, which appears at the end of this section.

- Flow--The total permitted volume of effluent discharged on a daily basis, usually expressed in millions of gallons per day (MGD).

- Total suspended solids (TSS)--Solid particulate matter found in wastewater, expressed in milligrams per liter (mg/l).

- Biochemical oxygen demand (BOD)--A measure of the dissolved oxygen consumed by microbial life while assimilating and oxidizing the organic matter present, expressed in milligrams per liter (mg/l).

- Process wastewater--Water which is used in the internal plant streams from which products are ultimately recovered, or water which comes into contact with raw material or products at any time.

- Storm water--Water collected from storm precipitation runoff which may pick up trace contaminants prior to discharge.

- Cooling water--Water which is used to absorb waste heat generated in a process. Cooling water can be either contact or noncontact.

- Utility water--Water which may be used for a number of purposes including:

  - Blowdown--A discharge from a system, designed to prevent a buildup of some material, as in a boiler to control dissolved solids

  - Washwater--Washwater used in the cleaning of equipment or materials.

In certain cases, data were not available for all discharge points, particularly some of the smaller dischargers on the New Orleans map sheet. Additionally, some points shown on the map sheets represent multiple discharge outfalls at the same plant or facility.

### 3.2.2 Inventory of Hazardous Waste Disposal Sites

Table 3 contains information on each of the land-based waste management facilities in the areas of study. At the study outset, it was determined that a "disposal facility" would be defined as any facility that managed hazardous waste (as defined in 40 CFR Part 261) by placing it on or beneath the land surface. For this reason, the survey was confined to landfills, surface impoundments, waste piles, underground injection wells, and land treatment facilities. It should be noted that not all of these facilities pose an equal threat to health or the environment. This is particularly true in the case of surface impoundments, which may or may not be underlain with an impermeable membrane, or which may be used to neutralize corrosive wastes and thus render them nonhazardous. Nonetheless, there is a potential for groundwater contamination from each class of facility described, and for this reason they were included in the study.

The fifth column of Table 3--major waste categories--lists the general class of waste managed at each facility. Nine possible waste site categories

are used--steel production wastes, organic chemical production wastes, inorganic chemical production wastes, petrochemical production wastes, various wastes subject to commercial disposal, petroleum refining wastes, metal manufacturing wastes, electric power production wastes, and others. Whenever possible, specific waste streams have also been listed; these are shown by the one-letter/three-digit code. This code is taken from 40 CFR Part 261.20-261.33, and is shown in the Appendix to this report.

In some cases, a mapped point represents multiple surface impoundments, especially where a series of impoundments are used as part of a wastewater treatment system.

### 3.2.3 Inventory of Inactive Waste Disposal Sites

Table 4 contains information on the inactive waste disposal sites in the areas of study. Prior to the promulgation of regulations under the Resource Conservation and Recovery Act of 1976 (40 CFR Parts 260-267 and 122-124), there were fewer requirements for detailed recordkeeping and reporting at waste management sites. Thus, much of the information on the inactive sites (such as disposal period and types of waste disposed of) is based on the recollection of employees or other unconfirmed records. While the information is useful and reasonably accurate, it should be regarded as an approximation of the actual activity at any given site.

As on Table 3, the one-letter/three-digit waste code is used whenever possible to indicate waste streams.

## 3.3 RELATION TO ECOLOGICAL RESOURCES

### 3.3.1 New Orleans, Louisiana

The region depicted on the New Orleans quadrangle of the 1:250,000-scale Gulf coast ecological inventory National Ecological Map Series is encompassed within the Mississippi Delta System and is characterized by extensive low-lying coastal marshes and very high biological productivity. A series of barrier islands protects the marshes from the Gulf of Mexico. The wetlands provide habitat for many breeding, migrating, and wintering shorebirds and waterfowl and for furbearers, such as muskrat and nutria. Louisiana has for many years led the nation in the production of wild fur, most of which comes from the coastal marshes.

The marshes, ditches, canals, bayous, and bays are prime nursery grounds for estuarine-dependent finfish and shellfish, including blue crabs, shrimps, Gulf menhaden, sheepshead, flounders, and members of the drum family. The coastal waters of this region lead the nation in volume of commercial fishery landings, with 98 percent of the species commercially caught being estuarine-dependent. Freshwater species also form an important fishery in the rivers, bayous, oxbows, and lakes. Major species include crayfish, catfish, buffalo, gars, freshwater drum, bowfin, carp, bass, crappie, and sunfish.

Several species of special status are found in the area depicted on the New Orleans sheet. The bald eagle, peregrine falcon, and American alligator are widespread, permanent residents throughout the area; at least six bald

eagle nests occur in this area. The Florida panther has been reported in the Atchafalaya Basin. Five sea turtles of special status--the green, loggerhead, hawksbill, Kemp's Ridley, and leatherback sea turtles--are found in the high salinity estuarine and Gulf of Mexico waters.

The following paragraphs describe some of the more important ecological resources on the New Orleans sheet, as well as those features which are difficult to display graphically.

The Barataria Bay basin (grid reference YC93 to YD31), including Little Lake (grid reference YC86), Lake Salvador (grid reference YC96), and Lac des Allemands (grid reference YD31), is the most productive of the Louisiana estuaries. It is responsible for nearly half of the fish harvest on the Louisiana coast and produces more Atlantic croaker, black and red drum, sand and spotted seatrout, gars, blue crab, shrimp, and oysters than any other Louisiana estuary. The nutrient input from the Mississippi River, subtropical climate, abundant rainfall, marshes, and the nutrient (organic and mineral) cycling by tidal flushing are responsible for the great productivity.

Two important bald eagle nesting areas occur at grid references YC88 and YD50.

Caminada Pass, Belle Pass, Little Pass Timbalier, Cat Island Pass, Wine Island Pass, Whiskey Pass, Grand Pass de Ilettes, Bayou Grand Caillou, and Oyster Bayou (grid references YC83, YC72, YC51, YC32, YC31, YC11, YC02, YC02 to YC03, and XC83, respectively) are major deep tidal passes through which estuarine-dependent finfish and shellfish move to and from estuarine feeding and nursery grounds. The estuaries and marshes behind these passes (grid reference YC83 to XC64), like those of the Barataria Bay basin, are important nurseries, feeding grounds, and commercial and recreational harvest areas for estuarine-dependent species, including brown and white shrimp, blue crab, flounder, and the major drum species, especially spotted seatrout.

The Isles Derniers (grid reference YC21 to XC91) are the only large islands relatively free of development left in Louisiana. They are remote, nearly wild, and heavily used by shorebirds, seabirds, and wading birds for feeding, resting, and nesting.

Bald eagles nest within grid references YC05, YC07, XC87, and XD85. This represents the greatest nesting concentration of eagles on the northern Gulf coast.

The few native black bears that remain in Louisiana today are confined largely to the heavily wooded bottomland hardwood terrain of the south-central part of the state, particularly from grid reference XC66 to XC69.

As the second largest wilderness area left in the United States, the Atchafalaya River basin covers approximately 405,000 hectares (1,000,000 acres) of swamp and marshlands. Portions of this basin occur on the New Orleans sheet from grid reference XC66 to XD41. It is probably the largest remaining overflow swamp in the United States and has outstanding value for wildlife by providing habitat for a great diversity of resident and migratory species, including possibly the Florida panther and ivory-billed woodpecker.

Due to poor documentation, the ivory-billed woodpecker has not been mapped. It is one of America's rarest birds and may be extinct, though there have been two recent sightings--one in 1971 (confirmed from a photograph) and one unconfirmed, but apparently reliable, sighting in 1980--both in the Atchafalaya basin.

The Atchafalaya River basin is also one of the prime freshwater commercial fishing areas in Louisiana. Over half of the state's yield of crayfish comes from this basin. Other species of commercial importance include frogs, blue and channel catfish, gars, buffalo, freshwater drum, bowfin, and carp. Recreational species include the above, as well as largemouth, spotted, yellow, and white bass, black and white crappie, and sunfish.

Brackish-water clams are harvested from Atchafalaya Bay, East and West Cote Blanche Bays, and Vermilion Bay (grid reference XC65 to WC88). These bays and the surrounding marshes are also nursery areas for estuarine-dependent species. The relict oyster reefs at the mouth of Atchafalaya Bay (grid reference XC64 to XC26) attract sport fish species, including spotted and sand seatrout and black and red drum.

The shoals off Atchafalaya Bay (grid references XC33 to XC12 and XC32 to XC11) are important fishing grounds for brown and white shrimp and industrial bottomfish, such as Atlantic croaker, spot, and silver seatrout. This area is one of the most productive nearshore shrimping grounds (especially for white shrimp), in the Gulf of Mexico. The freshwater influence of the Atchafalaya River over the shoals appears to be particularly conducive to shrimp production.

The oyster reefs along Marsh Island (grid reference XC25 to WC96) attract such sport fish as spotted and sand seatrout, Atlantic croaker, and red drum.

Tiger Shoal (grid reference XC05 to WC94) is another major commercial shoal area for the harvesting of white and brown shrimp, Atlantic croaker, spot, and silver seatrout.

The toxic and hazardous waste disposal and discharge sites depicted on the New Orleans sheet are distributed in three general areas--the Mississippi River around New Orleans, south of Houma on the Bayou Terrebonne and Bayou Grand Caillou drainage, and scattered throughout the northwest quarter of the sheet in the Atchafalaya-Vermilion Bay complex drainage. In general, there is little correlation between toxic and hazardous waste disposal and discharge sites and the locations of major ecological resources, as depicted on the New Orleans sheet and described above.

In the area surrounding New Orleans and especially along the Mississippi River, almost 70 toxic and hazardous waste disposal and discharge sites are found. Most of these are associated with refining, gas processing, chemical, and power generation facilities. As a result of the high concentration of industrialization, there are few major biological resources located within this area. In one case, the discharge (1038) from an oil and gas field is located on the edge of a bald eagle habitat (grid reference YD40). However, there is probably little conflict due to the large size of the habitat relative to the discharge.

South of Houma (grid reference YC27), the discharges located in Bayou Grand Caillou and Bayou Terrebonne drainage are mainly associated with ice plants and fish processing, packing, and canning. Generally, the flows from these discharges are relatively small. Several discharges (1051, 1056, 1058, 1060 to 1065, 1068 to 1071) are located along the edges of bald eagle habitats (grid references YC26, YC25, YC36, and YC35). Conflicts probably do not occur because of the large size of the eagle habitat relative to the small, localized nature of the discharges. This drainage is an important nursery area for estuarine-dependent finfish and shellfish. Some of the discharges, depending on their chemical and physical characteristics, may have localized effects in decreasing the value of the aquatic habitat as a nursery area.

A waste discharge (1073) at grid reference YC55 is located within a dabbling duck concentration and migratory area. Little information is available on the nature of this discharge so conclusions regarding effects are not possible.

Many of the remaining toxic and hazardous waste disposal and discharge sites are located within the Atchafalaya-Vermilion Bay complex drainage. They consist of a variety of waste types including fish processing, oil and gas refining, sugar refining, chemical production, and electric generation.

A relatively small waste discharge (1042) is located at the southern end of a bald eagle habitat at grid reference XC89. There are probably no conflicts because of the large size of the eagle habitat relative to the localized and peripheral nature of the discharge.

### 3.3.2 Houston, Texas

The region depicted on the Houston quadrangle of the 1:250,000-scale Gulf coast ecological inventory National Ecological Map Series is encompassed within both the Strandplain-Chenier Plain System and the Texas Barrier Island System. The Strandplain-Chenier Plain System extends north and east from Galveston Bay (grid reference UC56) and is characterized by several small rivers which discharge directly into the Gulf, an absence of large bays and barrier island systems, extensive brackish and freshwater marshes, and remnants of former beach ridges (cheniers). The Texas Barrier Island System extends south and west from Galveston Bay (grid reference UC56) and is characterized by a long series of islands protecting marsh-rimmed bays and lagoons. Seagrass beds and oyster reefs are common in this area.

The estuaries, seagrass beds, and marshes serve as prime nursery grounds for such estuarine-dependent shellfish and finfish as blue crabs, shrimp, members of the drum family, sheepshead, southern flounder, and mullet. These species are of great recreational and commercial importance in the estuaries and coastal Gulf of Mexico waters and contribute to this area's being a major fishery, especially for brown shrimp. Offshore areas contain numerous oil and gas platforms which act as artificial reefs and attract such sport species as jacks, gag, jewfish, warsaw grouper, red snapper, cobia, and Spanish and king mackerel. Inshore rivers and lakes harbor such freshwater species as catfish, largemouth and spotted bass, crappies, sunfish, gar, buffalo, freshwater drum, and carp.

Birds are common throughout the various habitat types on the Houston sheet. Coastal beaches host numerous shorebird species. Wading birds such as herons and egrets breed and winter in wetland areas, while waterfowl overwinter in wetlands as well as bays. Several mammals occur in wetlands and some, including muskrat and nutria, are trapped for fur.

Several species with special status are found in the area depicted on the Houston sheet. The endangered peregrine falcon and bald eagle migrate through the area in the winter; there are also at least three bald eagle nests. Attwater's greater prairie chicken is a resident in the area, as is the American alligator. Three state-listed bird species--the least tern, reddish egret, and white-faced ibis--breed in coastal marshes and on barrier islands. One state-listed fish, the paddlefish, has been found in Taylor Bayou. Five federally listed marine sea turtles occur in high-salinity estuarine and coastal Gulf of Mexico waters--the green, loggerhead, hawksbill, Kemp's Ridley, and leatherback sea turtles.

The following paragraphs describe some of the more important ecological resources on the Houston sheet, as well as those features which are difficult to display graphically.

Sea Rim State Park (grid reference VC09) provides habitat for many species, including the white ibis (threatened in Texas) and bald eagles.

Of great importance to wintering populations of migratory waterfowl in the Central Flyway is McFaddin Marsh National Wildlife Refuge (grid reference UC77 to UC98). In addition to 60,000 snow geese, up to 100,000 ducks of 23 species are present. The mottled duck uses the marsh for summer nesting and is the only resident waterfowl species found in these coastal marshes. This area was one of the last strongholds for the red wolf; it now contains one of the most dense populations of American alligators in Texas.

The paddlefish, an endangered species in Texas, has been reported in Taylor Bayou (grid reference UD90 to UD70). This area represents the southwest limit of the species' range. However, paddlefish populations are declining throughout their range.

The East Rigs (grid reference UC86) and 8 Fathom Rigs (grid reference UC93) attract such inshore sport reef species as sheepshead, cobia, bluefish, and Spanish and king mackerel.

Sabine Bank and Heald Bank--both composed of hard, sand bottom ridges and extending from grid references VC05 to UC94 and UC82 to UC06, respectively--are major commercial fishing grounds for white and brown shrimp and are in the middle of one of the major shrimping areas in the Gulf of Mexico.

The marsh adjacent to Anahuac National Wildlife Refuge (grid reference UC67 to UC68) provides fee hunting for a harvest of up to 10,000 to 12,000 ducks and 2,000 to 6,000 geese. The area has high habitat value for snow geese and mottled duck.

Among birdwatchers, Anahuac National Wildlife Refuge (grid reference UC57) is famous for its rails, where five and perhaps six species can be seen

in spring migration. There are also large waterfowl concentrations from November to January, with occasionally 50,000 snow geese. Sometimes masked ducks appear at the refuge, where their first confirmed nesting in the United States was recorded.

Reddish egret and white-faced ibis, both of special status, nest at grid reference UC56.

The Trinity River Delta (grid reference UC39) and the lower San Jacinto River (grid reference UC18 to TC99) are important nursery areas for estuarine-dependent finfish and shellfish species.

The Galveston Bay system (grid reference UC34 to UC18), including East Bay, Trinity Bay, and West Bay (grid references UC56 to UC36, UC39 to UC27, and UC24 to TC92, respectively), receives the most fishing pressure of any Texas bay system since it is close to major population centers. Most sportfishing activity occurs around oyster reefs, channel edges, buoys, and oil platforms, and is oriented to spotted and sand seatrout, Atlantic croaker, southern flounder, and to a lesser extent black and red drum and sheepshead. The bay system usually has one of the highest commercial yields of any Texas bay and often leads in production of brown and white shrimp and blue crab. Over the past several years, 50 to 90 percent of all oysters harvested in Texas have come from Galveston Bay; of those, 90 percent have come from Redfish Reefs (grid reference UC26).

Restricted to this section of the Gulf coast, the Attwater's greater prairie chicken has been found at grid references UC05 and TC96.

The tidal pass to Galveston Bay (grid reference UC34 to UC24) and San Luis Pass (grid reference TC91) are major migration routes for the movement of estuarine-dependent finfish and shellfish to and from estuarine nursery grounds.

Brazoria National Wildlife Refuge (grid reference TC81) offers habitat for large numbers of ducks, geese, and wading birds. Sometimes concentrations reach a thousand or more wood storks, 700 mottled ducks (some are permanent residents and breed here), and up to 400 roseate spoonbills. The refuge is an excellent birding area, especially in winter, and frequently it is the highest in the nation in number of species seen on the annual Audubon Christmas Bird Count.

A major breeding concentration area for bald eagles, a rare occurrence in this section, is located along the Brazos River between grid reference TC51 and TC54. Three of seven active nests in Texas in 1977 and 1978 were located here.

Attwater's greater prairie chickens inhabit open lands at grid references TC17, TD30, and TD11, and bald eagles concentrate during migration at grid reference TD22.

The toxic and hazardous waste disposal and discharge sites depicted on the Houston sheet are concentrated in three general areas--Port Arthur, Houston-Baytown, and Texas City. Other sites are scattered throughout the western portion of the map sheet. In general, there are few conflicts between waste

disposal and discharge sites and major ecological resources, as depicted on the Houston ecological inventory map and described above. This may be due to a cause-and-effect relationship in which industrial development associated with waste disposal and discharge sites has replaced or precluded biological niches.

The sites surrounding Port Arthur involve mainly discharges and disposal from petroleum refining and petrochemical production. There are no apparent conflicts between these sites and the biological resources portrayed on the Houston map sheet.

Nearly 400 toxic and hazardous waste discharge and disposal sites are located in the Houston-Baytown area. Many of these sites are in the Buffalo Bayou drainage. Although these sites represent a diverse industrial base, a large number are the result of petroleum refining and petrochemical production. Perhaps because of the high degree of industrialization and development, there are few major biological resources located within this area. The lower San Jacinto River and bordering wetlands (grid reference UC18 to TC99) are important nursery areas for estuarine-dependent finfish and shellfish and support several wading bird species. The flushing of Buffalo Bayou may distribute industrial contaminants into the nursery grounds and bird habitat of the lower San Jacinto River.

An inactive disposal site (3000), decommissioned in 1981, borders on the San Jacinto Battleground State Historic Park (grid reference TC99). This park harbors gulls, terns, herons, egrets, dabbling ducks, and red-shouldered hawks.

Two dischargers (1456, 1457) and an active and inactive disposal site (2003, 3041) border on, but do not conflict with, the Trinity River drainage (grid reference UD20). This area is very biologically productive, serving as a nursery for estuarine-dependent finfish and shellfish and a habitat for wading birds, shorebirds, waterfowl, raptors, songbirds, bobcat, deer, and several species of furbearing mammals.

Three discharge sites are located near or within the habitat of the Attwater's greater prairie chicken (grid reference TC06). Discharge 1470 is used intermittently for cooling water and 1471 is used for process wastewater; the use of 1472 is not known.

The area around Texas City contains 27 toxic and harzardous waste discharge and disposal sites. The waste discharges are generally process wastewater from petrochemical plants, while the active and inactive disposal sites are for organic and inorganic chemical production wastes. Several of the waste disposal sites (2005, 2402, 3015, 3043) border on Dollar and Moses Bays (grid reference UC15). These bays are nursery areas for estuarine-dependent finfish and shellfish, breeding areas for Forster's tern and black skimmer, and wintering areas for white pelicans. Several waste disposal and discharge sites (1475 to 1480, 2115, 2116, 2300, 2401, 3042) in the Texas City area are located on Galveston Bay or canals leading to the bay (grid reference UC14 to UC15). Several nearshore oyster reefs in this area are closed to fishing due to municipal sewage waste--not toxic or hazardous wastes.

Process wastewater is discharged from two chemical production plants (1484, 1485) on Chocolate Bayou (grid reference TC83). This river is a nursery area for white and brown shrimp, blue crabs, drums, sheepshead, and southern flounder.

Table 2. Industrial point source discharge inventory.

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1000 | E.I. DuPont Burnside, LA | 40 | 0 | 0 | Cooling water |
| 1001 | Louisiana Power & Light Waterford, LA | 1,665 | 0 | 30 | Cooling water |
| 1002 | Hooker Chemical | 5.03 | NA | 548 | Process wastewater |
| 1003 | Occidental Chemical | 0.029 | NA | NA | Process wastewater |
| 1004 | Argus Chemical | 3,404 | 0 | 0 | Cooling water |
| 1005 | Shell Chemical | 23.76 | 87.4 | 435 | Combined process wastewater and cooling water |
| 1006 | Shell Oil | 0.252 | NA | NA | Process wastewater |
| 1007 | General American Transportation | 0.02 | NA | NA | Process wastewater |
| 1008 | GATX Terminals | 0.288 | NA | NA | Process wastewater |
| 1009 | Beker Industries | 28.7 | 0 | 25 | Cooling water |
| 1010 | Union Carbide | 720 | 8.3 | 2.5 | Process wastewater and cooling water |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1011 | Bunge Corp. | NA | NA | NA | NA |
| 1012 | International Processors | 0.186 | NA | NA | Process wastewater |
| 1013 | St. Charles Parish Water Works | 0.198 | NA | NA | Process wastewater |
| 1014 | St. Charles Parish Water Works | 0.307 | NA | NA | Process wastewater |
| 1015 | Monsanto | 6.915 | 17 | 496 | Process wastewater |
| 1016 | Avondale Shipyards | 0.003 | 0 | 0 | Cooling water |
| 1017 | Winn Dixie | 0 | 0 | 0 | Storm water, intermittent use |
| 1018 | Avondale Shipyards | NA | NA | NA | Combined process wastewater and cooling water |
| 1019 | Avondale Shipyards | 0.73 | NA | NA | Process wastewater |
| 1020 | Amstar | 30.206 | 10.6 | 2.4 | Cooling water with some process wastewater |
| 1021 | Naval Command Station | 0.002 | NA | NA | NA |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1022 | City of Gretna, Water Treatment | NA | NA | NA | Process wastewater |
| 1023 | New Orleans Public Service | 77 | NA | NA | Process wastewater |
| 1024 | Witco Chemical | NA | 2,948 kg/day | 1,270 kg/day | Process wastewater |
| 1025 | Hunt-Wesson | 1.2 | 43 | 43 | Process wastewater |
| 1026 | Cutcher Canning Co. | 0.12 | NA | NA | Process wastewater |
| 1027 | Jefferson Parish Water District #2 | NA | NA | NA | Water treatment |
| 1028 | New Orleans Public Service | 77 | NA | NA | Water treatment |
| 1029 | Robinson Canning Co. | 0.193 | NA | NA | Process wastewater |
| 1030 | Louisiana Power & Light | 165.4 | 0 | 0 | Cooling water |
| 1031 | Jefferson Parish Water District #1 | NA | NA | NA | Water treatment |
| 1032 | Southern Pacific Transportation | 0.011 | NA | NA | Process wastewater |
| 1033 | Alton Ochsner Medical Foundation | 1.973 | NA | NA | NA |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1034 | Timmus Refining | 0.025 | NA | NA | NA |
| 1035 | Sewerage and Water Board | 0.23 | NA | NA | Water treatment |
| 1036 | American Cyanamid | 2.996 | 0 | 72 | Process wastewater and cooling water |
| 1037 | Celotex | 7.2 | NA | NA | Process wastewater |
| 1038 | Texaco | 10 | NA | NA | Total chromium, 0.6 kg/day |
| 1039 | South Coast Corp. | 14.4 | 0.1 | 0.95 | Process wastewater; Nitrogen, 1.4 kg/day |
| 1040 | Dugas and Lumber Factory | 13 | NA | NA | NA |
| 1041 | Ozio Fisheries | 0.012 | NA | NA | NA |
| 1042 | Plastic Applicators | 0.01 | NA | NA | NA |
| 1043 | Supreme Sugar and Refinery | 16 | NA | NA | NA |
| 1044 | A. E. Staley Manufacturing | 0.0002 | NA | NA | Process wastewater |
| 1045 | Buquet Ice Co. | 1.23 | NA | NA | NA |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1046 | Buquet Canning Co. | 0.33 | NA | NA | NA |
| 1047 | Glenwood Cooperative | 15.84 | NA | NA | NA |
| 1048 | Avondale Shipyards | 0.002 | NA | NA | NA |
| 1049 | Southern Protein, Inc. | 7.2 | NA | NA | NA |
| 1050 | Shell Oil | 76.8 | NA | NA | NA |
| 1051 | Huey Ice Co. | 60 gal/day | NA | NA | NA |
| 1052 | Buquet Ice Co. | 7.65 | NA | NA | NA |
| 1053 | Union Oil | 8.9 | NA | NA | NA |
| 1054 | Getty Oil | 0.08 | NA | NA | NA |
| 1055 | Dow Chemical | 2.4 | NA | NA | NA |
| 1056 | Zapata Haynie | 0.2 | NA | NA | NA |
| 1057 | Texaco | 0.05 | NA | NA | NA |
| 1058 | Placid Oil | 0.004 | NA | NA | NA |
| 1059 | So. Louisiana Medical Center | 0.05 | NA | NA | NA |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1060 | Grand Caillou Packing Co. | 0.54 | NA | NA | NA |
| 1061 | Ivy Authement Ice Manufacturing Co. | 0.43 | NA | NA | NA |
| 1062 | Authement Packing Co. | 0.42 | NA | NA | NA |
| 1063 | Voisin Canning Co. | 25 gal/day | NA | NA | NA |
| 1064 | South Coast Corp. | 17 | NA | NA | NA |
| 1065 | Louisiana Packing Co. | 0.07 | NA | NA | NA |
| 1066 | Autin Packing Co. | 0.02 | NA | NA | NA |
| 1067 | Dow Chemical | 0.001 | NA | NA | NA |
| 1068 | Sea Tang Fisheries | 0.006 | NA | NA | NA |
| 1069 | Ocean Protein, Inc. | 2.6 | NA | NA | NA |
| 1070 | Authement Packing Co. | 0.7 | NA | NA | NA |
| 1071 | Gulf Coast Packing Co. | 0.45 | NA | NA | NA |
| 1072 | Indian Ridge Canning Co. | 0.26 | NA | NA | NA |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1073 | Texas Gulf Sulphur Co. | NA | NA | NA | NA |
| 1074 | Lipton Pet Food | 0.02 | NA | NA | NA |
| 1075 | Gulf Shrimp Packing Co. | 0.005 | NA | NA | NA |
| 1076 | Casso Fisheries | 0.002-0.00004 | 5 | 10 | Process wastewater |
| 1077 | Patterson Shrimp Co. | 0.0003 | NA | 44 | Process wastewater |
| 1078 | Texaco | 3.6 | NA | NA | NA |
| 1079 | Dow Chemical | 0.5 | NA | 0.03 | Process wastewater |
| 1080 | Sea Shrimp Co. | 0.0006 | NA | 100 | Process wastewater |
| 1081 | Morton Chemical | 8.19 | 5 ppm | 42 ppm | Process wastewater |
| 1082 | Morton Chemical | 3.76 | 0 | 396 ppm | Process wastewater; Chlorine, 3,380 ppm |
| 1083 | Morton Chemical | 0.87 | 2 ppm | 24 ppm | Process wastewater; Chlorine, 3,615 ppm |
| 1084 | Morton Chemical | 2.9 | 2 ppm | 24 ppm | Process wastewater |
| 1085 | Louisiana Sugar Coop | 1.44 | 80 | 100 | Process wastewater |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1086 | Cabot Corp. | 0.072 | NA | NA | NA |
| 1087 | Cabot Corp. | 0.046 | 18.5 | 40 | Process wastewater |
| 1088 | Cabot Corp. | 0.11 | NA | 10.6 | Process wastewater; Oil and grease, 0.1 mg/l |
| 1089 | Central Louisiana Electric | 0.044 | 0 | 30 | Process wastewater; Oil and grease, 1 mg/l |
| 1090 | Jeanerette Sugar | 1.5 | 6 | 24 | Process wastewater |
| 1091 | St. Mary Sugar Coop | 5.7 | 28 | 22.4 | Process wastewater |
| 1092 | Sterling Sugars | 2.88 | 50.1 | 201.3 | Process wastewater |
| 1093 | Diamond Crystal Salt | 5.7 | 0 | 0.75 | Process wastewater |
| 1094 | Diamond Crystal Salt | 0.00564 | 0 | 7.25 | Process wastewater |
| 1095 | McIlhenny | 0.0208 | 4 | 15 | Process wastewater |
| 1096 | M. A. Patout & Son | 1.5 | 10.4 | 41.7 | Process wastewater |
| 1097 | Ashland Chemical | 1,310 | NA | 2 | Process wastewater |
| 1098 | Ashland Chemical | 1,480 | NA | 11 | Process wastewater |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1099 | Ashland Chemical | 2,150 | NA | 316 | Process wastewater |
| 1100 | Columbia Sugar Factory | 5.7 | 20 | 20 | Process wastewater |
| 1101 | St. Mary Iron Works | 0.0288 | 0 | 60 | Cooling water |
| 1102 | Central Louisiana Electric | 17 | NA | NA | NA |
| 1103 | Central Louisiana Electric | 0.0008 | NA | 30 | NA |
| 1104 | Central Louisiana Electric | 0.0008 | NA | NA | NA |
| 1105 | Central Louisiana Electric | 0.004 | 30 | 30 | NA |
| 1106 | Central Louisiana Electric | 187 | NA | NA | NA |
| 1107 | Central Louisiana Electric | 0.025 | NA | 30 | NA |
| 1108 | Jefferson Lake Sulphur Co. | 0 | 25 | 100 | Cooling water, intermittent use |
| 1109 | Arco Chemical | 7.74 | 17.6 | 26.7 | Process wastewater |
| 1110 | Groendyke Transport | 0.0025 | 0 | 0 | Utility water, retained |
| 1111 | NL Treating Chemicals | 0 | 0 | 0 | Process wastewater, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1112 | NL Treating Chemicals | 0.01 | 20 | 20 | NA |
| 1113 | Arco Chemical | 1.6 | 20.7 | 11.6 | Process wastewater |
| 1114 | Arco Chemical | 2 | 27 | 9.3 | Process wastewater |
| 1115 | Arco Chemical | 0 | 0 | 0 | Utility water, intermittent use |
| 1116 | Arco Chemical | 0 | 0 | 0 | Storm water, intermittent use |
| 1117 | Air Products & Chemicals | 0.042 | 0 | 30.0 | Utility water |
| 1118 | Air Products & Chemicals | 0 | 0 | 0 | Storm water, intermittent use |
| 1119 | Thaxton James | 0.02 | 30 | 30 | Process wastewater |
| 1120 | Thaxton James | 0 | 0 | 0 | Storm water, intermittent use |
| 1121 | Soltex Polymer | 0.743 | 19 | 55 | Process wastewater |
| 1122 | Soltex Polymer | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1123 | Soltex Polymer | 0.218 | 22 | 60.5 | Process wastewater |
| 1124 | Soltex Polymer | 0 | 0 | 0 | Storm water, intermittent use |
| 1125 | Soltex Polymer | 0 | 0 | 0 | Storm water, intermittent use |
| 1126 | Exxon | 27.5 | 17 | 36 | Process wastewater; $NH_3$, 10 mg/l |
| 1127 | Exxon | 0 | 0 | 0 | Storm water, intermittent use |
| 1128 | Exxon | 1.6 | 0 | 0 | Utility water |
| 1129 | Arco Polymers | 0.38 | 0 | 30 | Process wastewater |
| 1130 | Arco Polymers | 0 | 0 | 0 | Storm water, intermittent use |
| 1131 | Diamond-Shamrock Battleground, TX | 1.65 | 0 | 50 | Process wastewater |
| 1132 | Diamond-Shamrock Battleground, TX | 0.045 | 0 | 0 | Process wastewater |
| 1133 | Texas Alkyls | 0.05 | 0 | 0 | Utility water |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1134 | Texas State Department of Highways | 0 | 0 | 0 | Storm water, intermittent use |
| 1135 | Diamond-Shamrock Plastics | 1.57 | 21.8 | 26 | Process wastewater |
| 1136 | Diamond-Shamrock Plastics | 0 | 0 | 0 | Storm water, intermittent use |
| 1137 | Solteco and Lexteco | 0.0288 | 22.1 | 20 | Process wastewater |
| 1138 | Tenneco | 3 | 16.6 | 24.9 | Process wastewater; $NH_3$, 10 mg/l |
| 1139 | Tenneco | 0 | 0 | 0 | Process wastewater, intermittent use |
| 1140 | Diamond-Shamrock Deer Park | 12 | 0 | 0 | Cooling water, once through |
| 1141 | Diamond-Shamrock Deer Park | 105 | 0 | 0 | Cooling water, once through |
| 1142 | Diamond-Shamrock Deer Park | 15 | 0 | 0 | Cooling water, once through |
| 1143 | Diamond-Shamrock Deer Park | 3.251 | 0 | 0 | Cooling water, once through |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1144 | Diamond-Shamrock Deer Park | 2.282 | 20 | 34.7 | Process wastewater |
| 1145 | Diamond-Shamrock Deer Park | 0 | 0 | 0 | Process wastewater |
| 1146 | Diamond-Shamrock Deer Park | 0 | 0 | 0 | Process wastewater |
| 1147 | United States Gypsum | 0.5 | 39.6 | 43.2 | Process wastewater |
| 1148 | Atlantic Richfield | 0 | 0 | 0 | Storm water, intermittent use |
| 1149 | Atlantic Richfield | 0 | 0 | 0 | Storm water, intermittent use |
| 1150 | Atlantic Richfield | 0 | 0 | 0 | Storm water, intermittent use |
| 1151 | US Steel | 0.6 | 16 | 12 | Process wastewater |
| 1152 | Shell Chemical | 10 | 25.5 | 45 | Process wastewater |
| 1153 | Shell Chemical | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1154 | Shell Chemical | 0 | 0 | 0 | Storm water, intermittent use |
| 1155 | Shell Oil | 2.3 | 0 | 0 | Utility water |
| 1156 | Shell Oil | 0 | 0 | 0 | Storm water, intermittent use |
| 1157 | Shell Oil | 0 | 0 | 0 | Storm water, intermittent use |
| 1158 | Shell Oil | 0 | 0 | 0 | Storm water, intermittent use |
| 1159 | Shell Oil | 0 | 0 | 0 | Storm water, intermittent use |
| 1160 | Shell Oil | 7.92 | 22.6 | 43.1 | Process wastewater; $NH_3$, 10.9 mg/l |
| 1161 | Shell Oil | 0 | 0 | 0 | Storm water, intermittent use |
| 1162 | Shell Oil | 0 | 0 | 0 | Storm water, intermittent use |
| 1163 | Texaco | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1164 | Texaco | 0 | 0 | 0 | Storm water, intermittent use |
| 1165 | Texaco | 0 | 0 | 0 | Storm water, intermittent use |
| 1166 | Texaco | 0 | 0 | 0 | Storm water, intermittent use |
| 1167 | Penwalt Corporation | 0.2 | 16.8 | 25.2 | Process wastewater |
| 1168 | Ideal Basic Industries | 0.62 | 0 | 24.9 | Cooling water |
| 1169 | Ideal Basic Industries | 0.2 | 0 | 40.2 | Cooling water |
| 1170 | Ideal Basic Industries | 0.001 | 0 | 0 | Cooling water |
| 1171 | Ideal Basic Industries | 0 | 0 | 0 | Storm water, intermittent use |
| 1172 | Ideal Basic Industries | 0 | 0 | 0 | Storm water, intermittent use |
| 1173 | Ideal Basic Industries | 0.025 | 0 | 0 | Cooling water |
| 1174 | Rohm and Haas | 4.32 | 48.3 | 40 | Process wastewater; $NH_3$, 41.6 mg/l |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1175 | Rohm and Haas | 0 | 0 | 0 | Storm water, intermittent use |
| 1176 | Rohm and Haas | 0 | 0 | 0 | Storm water, intermittent use |
| 1177 | Rohm and Haas | 0 | 0 | 0 | Storm water, intermittent use |
| 1178 | Rohm and Haas | 0 | 0 | 0 | Storm water, intermittent use |
| 1179 | Rohm and Haas | 0 | 0 | 0 | Storm water, intermittent use |
| 1180 | Dresser Systems | 0.105 | 10 | 15 | Domestic wastewater |
| 1181 | Merichem Co. | 0.225 | 17.6 | 43.2 | Process wastewater |
| 1182 | Ethyl Corp. | 4.32 | 17.9 | 19.4 | Process wastewater; $NH_3$, 5.3 mg/l |
| 1183 | Ethyl Corp. | 9.54 | 0 | 0 | Cooling water, once through |
| 1184 | Ethyl Corp. | 12.672 | 0 | 0 | Cooling water, once through |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1185 | Armco Steel | 5.3 | 0 | 20 | Process wastewater |
| 1186 | Armco Steel | 0.45 | 12.7 | 50.1 | Process wastewater |
| 1187 | Armco Steel | 0.36 | 16.7 | 16.7 | Domestic wastewater |
| 1188 | Armco Steel | 35 | 0 | 0 | Cooling water, once through |
| 1189 | Armco Steel | 0 | 0 | 0 | Storm water, intermittent use |
| 1190 | Armco Steel | 0 | 0 | 0 | Storm water, intermittent use |
| 1191 | Armco Steel | 0 | 0 | 0 | Storm water, intermittent use |
| 1192 | Armco Steel | 0 | 0 | 0 | Storm water, intermittent use |
| 1193 | Armco Steel | 0 | 0 | 0 | Storm water, intermittent use |
| 1194 | Armco Steel | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1195 | Armco Steel | 0 | 0 | 0 | Storm water, intermittent use |
| 1196 | Armco Steel | 0 | 0 | 0 | Storm water, intermittent use |
| 1197 | Armco Steel | 0 | 0 | 0 | Storm water, intermittent use |
| 1198 | Goodyear Tire & Rubber Co. | 2.7 | 14.4 | 66.4 | Process wastewater; $NH_3$, 17 mg/l |
| 1199 | Goodyear Tire & Rubber Co. | 0 | 0 | 0 | Storm water, intermittent use |
| 1200 | Charter International Oil | 2.015 | 12.3 | 19.3 | Process wastewater |
| 1201 | Charter International Oil | 0 | 0 | 0 | Storm water, intermittent use |
| 1202 | Charter International Oil | 0 | 0 | 0 | Storm water, intermittent use |
| 1203 | Charter International Oil | 0 | 0 | 0 | Storm water, intermittent use |
| 1204 | Charter International Oil | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1205 | Charter International Oil | 0 | 0 | 0 | Storm water, intermittent use |
| 1206 | Charter International Oil | 0 | 0 | 0 | Storm water, intermittent use |
| 1207 | Charter International Oil | 1.44 | 17.2 | 27.1 | Process wastewater; $NH_3$, 11.2 mg/l |
| 1208 | Charter International Oil | 0.575 | 0 | 0 | Utility water |
| 1209 | Stauffer Chemical | 0 | 0 | 0 | Storm water, intermittent use |
| 1210 | Stauffer Chemical | 0.144 | 0 | 30 | Utility water |
| 1211 | Stauffer Chemical | 1.4 | 7.7 | 17.1 | Process wastewater |
| 1212 | Crown Central Petroleum | 0 | 0 | 0 | Storm water, intermittent use |
| 1213 | Crown Central Petroleum | 0 | 0 | 0 | NA |
| 1214 | Petro Tex Chemical | 1 | 0 | 0 | Process wastewater |
| 1215 | Lone Star Industries | 0.4 | 0 | 0 | Utility water |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1216 | Lone Star Industries | 0 | 0 | 0 | Storm water, intermittent use |
| 1217 | Petro Tex Chemical | 7.23 | 23 | 36.4 | Process wastewater |
| 1218 | Exxon Chemical | 0.39 | 20 | 20 | Process wastewater |
| 1219 | Exxon Chemical | 0 | 0 | 0 | Storm water, intermittent use |
| 1220 | Exxon Chemical | 0 | 0 | 0 | Storm water, intermittent use |
| 1221 | Lubrizol Corp. | 1 | 12.5 | 45.2 | Process wastewater |
| 1222 | Lubrizol Corp. | 0 | 0 | 0 | Storm water, intermittent use |
| 1223 | Lubrizol Corp. | 0 | 0 | 0 | Storm water, intermittent use |
| 1224 | Lubrizol Corp. | 0 | 0 | 0 | Storm water, intermittent use |
| 1225 | Lubrizol Corp. | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1226 | Lubrizol Corp. | 0 | 0 | 0 | Storm water, intermittent use |
| 1227 | Lubrizol Corp. | 0 | 0 | 0 | Storm water, intermittent use |
| 1228 | Pasadena Chemical | 1.728 | 0 | 0 | Cooling water |
| 1229 | Pasadena Chemical | 1.1 | 0 | 0 | Cooling water; $NH_3$, 4.7 mg/l; $PO_4$, 8 mg/l |
| 1230 | Pasadena Chemical | 0.045 | 10 | 15 | Domestic wastewater |
| 1231 | Pasadena Chemical | 0 | 0 | 0 | Storm water, intermittent use |
| 1232 | Pasadena Chemical | 0 | 0 | 0 | Storm water, intermittent use |
| 1233 | Pasadena Chemical | 0.72 | 0 | 0 | Cooling water |
| 1234 | Pasadena Chemical | 0.432 | 0 | 0 | Cooling water |
| 1235 | Airco Welding Products | 0.005 | 0 | 0 | Process wastewater, retained |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1236 | Reichhold Chemicals | 0.08 | 30 | 10 | Process wastewater |
| 1237 | Amerada Hess | 0.73 | 13.3 | 16.8 | Utility water |
| 1238 | Amerada Hess | 0 | 0 | 0 | Storm water, intermittent use |
| 1239 | Diamond-Shamrock | 0.8 | 26.8 | 39.3 | Process wastewater; $NH_3$, 3 mg/l |
| 1240 | Diamond-Shamrock | 0.8 | 26.8 | 39.3 | Process wastewater; $NH_3$, 3 mg/l |
| 1241 | Diamond-Shamrock | 0 | 0 | 0 | Storm water, intermittent use |
| 1242 | Chemical Exchange | 0.065 | 18.4 | 31.4 | Process wastewater; $NH_3$, 14.8 mg/l |
| 1243 | Phillips Chemical | 4.3 | 12 | 26.2 | Process wastewater |
| 1244 | Phillips Chemical | 0 | 0 | 0 | Storm water, intermittent use |
| 1245 | American Thermoplastics | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1246 | American Thermoplastics | 0 | 0 | 0 | Storm water, intermittent use |
| 1247 | Houston Lighting & Power Clarke Station | 1.5 | 0 | 0 | Utility water |
| 1248 | Houston Lighting & Power Clarke Station | 0 | 0 | 0 | Utility water, intermittent use |
| 1249 | Houston Lighting & Power Clarke Station | 0 | 0 | 0 | Utility water, intermittent use |
| 1250 | Houston Lighting & Power Clarke Station | 0 | 0 | 0 | Utility water, intermittent use |
| 1251 | Houston Lighting & Power Clarke Station | 0 | 0 | 0 | Utility water, intermittent use |
| 1252 | Houston Lighting & Power Greens Bayou Station | 5 | 0 | 0 | Utility water |
| 1253 | Houston Lighting & Power Greens Bayou Station | 0 | 0 | 0 | Utility water, intermittent use |
| 1254 | Houston Lighting & Power Greens Bayou Station | 0 | 0 | 0 | Utility water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1255 | Houston Lighting & Power Greens Bayou Station | 5 | 0 | 0 | Utility water |
| 1256 | Houston Lighting & Power Deepwater Station | 441 | 0 | 0 | Cooling water, retained |
| 1257 | Houston Lighting & Power Deepwater Station | 0 | 0 | 0 | Domestic wastewater |
| 1258 | Houston Lighting & Power Deepwater Station | 0 | 0 | 0 | Utility water, intermittent use |
| 1259 | Houston Lighting & Power Deepwater Station | 0 | 0 | 0 | Utility water, intermittent use |
| 1260 | Houston Lighting & Power Deepwater Station | 0 | 0 | 0 | Utility water, intermittent use |
| 1261 | Koppers Co. | 0.022 | 45.2 | 69.8 | Process wastewater |
| 1262 | Koppers Co. | 0.022 | 45.2 | 69.8 | Process wastewater |
| 1263 | Houston Lighting & Power Wharton Station | 3.95 | 0 | 0 | Utility water |
| 1264 | Houston Lighting & Power Wharton Station | 0 | 0 | 0 | Utility water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1265 | Houston Lighting & Power Wharton Station | 0 | 0 | 0 | Utility water, intermittent use |
| 1266 | Houston Lighting & Power Wharton Station | 0 | 0 | 0 | Utility water, intermittent use |
| 1267 | Hughes Tool Co. | 0.201 | 0 | 0 | Cooling water |
| 1268 | Hughes Tool Co. | 0 | 0 | 0 | Storm water, intermittent use |
| 1269 | Hughes Tool Co. | 0 | 0 | 0 | Storm water, intermittent use |
| 1270 | Hughes Tool Co. | 0.055 | 0 | 0 | Utility water |
| 1271 | Hughes Tool Co. | 0.11 | 0 | 0 | Cooling water |
| 1272 | Gulf States Asphalt | 0.1 | 0 | 40.8 | Process wastewater |
| 1273 | Gulf States Asphalt | 0 | 0 | 0 | Storm water, intermittent use |
| 1274 | S & R Oil | 0 | 0 | 0 | Storm water, intermittent use |
| 1275 | St. Regis Paper | 18.15 | 23.1 | 60 | Process wastewater; $NH_3$, 1.3 mg/l |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1276 | Texaco | 0 | 0 | 0 | Storm water, intermittent use |
| 1277 | Union Carbide | 0.43 | 0 | 20.9 | Cooling water |
| 1278 | Southern Pacific Transportation | 0.065 | 19.9 | 19.9 | Utility water; $NH_3$, 24.9 mg/l |
| 1279 | Southern Pacific Transportation | 0 | 0 | 0 | Storm water, intermittent use |
| 1280 | Fertilizer Co. of Texas | 0.15 | 0 | 0 | Utility water; $NH_3$, 8 mg/l; $PO_4$, 16 mg/l |
| 1281 | Fertilizer Co. of Texas | 0 | 0 | 0 | Process wastewater, intermittent use |
| 1282 | Fertilizer Co. of Texas | 0 | 0 | 0 | Storm water, intermittent use |
| 1283 | Dresser Industries | 0 | 0 | 0 | Storm water, intermittent use |
| 1284 | PPG Industries | 0 | 0 | 0 | Cooling water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1285 | PPG Industries | 0 | 0 | 0 | Cooling water, intermittent use |
| 1286 | Texas Instruments | 4 | 20 | 23.9 | Process wastewater; $NH_3$, 7 mg/l |
| 1287 | Texas Instruments | 0.63 | 0 | 0 | Process wastewater |
| 1288 | Superior Oil | 0.0025 | 10.1 | 14.9 | Domestic wastewater |
| 1289 | Kocide Chemical | 0.5 | 0 | 15.6 | Process wastewater; $PO_4$, 5 mg/l |
| 1290 | Texas Medical Center | 0.3 | 0 | 15 | Utility water |
| 1291 | GATX Terminals | 0 | 0 | 0 | Storm water, intermittent use |
| 1292 | GATX Terminals | 0 | 0 | 0 | Storm water, intermittent use |
| 1293 | Gulf Oil Chemicals | 0.2 | 17.3 | 48 | Process wastewater |
| 1294 | Armco | 0.0148 | 19.5 | 19.5 | Process wastewater |
| 1295 | Rollins Environmental Services | 0.975 | 18.9 | 27.8 | Process wastewater |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1296 | Rollins Environmental Services | 0 | 0 | 0 | Storm water, intermittent use |
| 1297 | Steel Enterprises | 0.008 | 9.6 | 14.4 | Domestic wastewater |
| 1298 | GATX Terminals | 0 | 0 | 0 | Storm water, intermittent use |
| 1299 | GATX Terminals | 0 | 0 | 0 | Storm water, intermittent use |
| 1300 | Paktank Gulf Coast | 0 | 0 | 0 | Storm water, intermittent use |
| 1301 | Coastal Transport | 0.01 | 20.4 | 20.4 | Utility water |
| 1302 | Intercontinental Service | 0.0004 | 0 | 0 | Utility water |
| 1303 | Empak | 0.302 | 25.8 | 34.1 | Process wastewater |
| 1304 | GCWDA-Washburn Tunnel | 52.6 | 20.8 | 59.4 | Process wastewater; $NH_3$, 3.4 mg/l |
| 1305 | Gulf Oil | 0.007 | 0 | 42.8 | Utility water |
| 1306 | J. W. Jones, Inc. | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1307 | Proler International | 0 | 0 | 0 | Storm water, intermittent use |
| 1308 | Proler International | 0 | 0 | 0 | Storm water, intermittent use |
| 1309 | Proler International | 0 | 0 | 0 | Storm water, intermittent use |
| 1310 | Gibraltar Fence | 0.144 | 0 | 20 | Process wastewater |
| 1311 | Shell Development Co. | 0.475 | 12 | 12 | Process wastewater; $NH_3$, 5 mg/l; $PO_4$, 2 mg/l |
| 1312 | Shell Development Co. | 0 | 0 | 0 | Storm water, intermittent use |
| 1313 | Missouri Pacific Railroad | 0 | 0 | 0 | Storm water, intermittent use |
| 1314 | Missouri Pacific Railroad | 0 | 0 | 0 | Storm water, intermittent use |
| 1315 | Missouri Pacific Railroad | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1316 | General Electric | 0.025 | 0 | 0 | Process wastewater |
| 1317 | Berwind Railway Service | 0 | 0 | 0 | Storm water, intermittent use |
| 1318 | Western Commercial Transport | 0.02 | 19.8 | 19.8 | Utility water; $PO_4$, 10.2 mg/l |
| 1319 | Rohm and Haas | 1.12 | 35.3 | 24.6 | Process wastewater; $NH_3$, 3.4 mg/l |
| 1320 | Georgia Pacific | 0 | 0 | 0 | Storm water, intermittent use |
| 1321 | NL Industries | 0.25 | 0 | 0 | Cooling water |
| 1322 | Intercontinental Terminals | 0 | 0 | 0 | Storm water, intermittent use |
| 1323 | Intercontinental Terminals | 0.127 | 30.2 | 34.9 | Process wastewater |
| 1324 | Intercontinental Terminals | 0 | 0 | 0 | Storm water, intermittent use |
| 1325 | Intercontinental Terminals | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1326 | Intercontinental Terminals | 0 | 0 | 0 | Storm water, intermittent use |
| 1327 | American Plating Co. of Texas | 0.01 | 0 | 0 | Process wastewater |
| 1328 | Bayou Steel | 0 | 0 | 0 | Process wastewater, retained |
| 1329 | Labbco | 0.084 | 0 | 0 | Cooling water |
| 1330 | Anheuser-Busch | 0 | 0 | 0 | Utility water, intermittent use |
| 1331 | Newpark Shipbuilding & Repair | 0.1 | 20 | 20 | Process wastewater |
| 1332 | Warren Petroleum | 0.0002 | 0 | 0 | Utility water |
| 1333 | Warren Petroleum | 46 | 0 | 0 | Cooling water, once through |
| 1334 | Oiltanking of Texas | 6 | 0 | 0 | Cooling water, once through |
| 1335 | Oiltanking of Texas | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1336 | Exxon Pipeline Co. | 0 | 0 | 0 | Storm water, intermittent use |
| 1337 | Georgia-Pacific | 0 | 0 | 0 | Utility water, intermittent use |
| 1338 | Georgia-Pacific | 0 | 0 | 0 | Storm water, intermittent use |
| 1339 | Georgia-Pacific | 0 | 0 | 0 | Storm water, intermittent use |
| 1340 | Trumbull Asphalt Division | 0 | 0 | 0 | Process wastewater, intermittent use |
| 1341 | Trumbull Asphalt Division | 0 | 0 | 0 | Storm water, intermittent use |
| 1342 | John D. Campbell | 0.045 | 0 | 29.3 | Utility water |
| 1343 | Chemical Exchange Co. | 1.5 | 0 | 0 | Cooling water |
| 1344 | Stauffer Chemical | 0.21 | 0 | 28.5 | Utility water |
| 1345 | Stauffer Chemical | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1346 | Phillips Pipeline Co. | 0 | 0 | 0 | Storm water, intermittent use |
| 1347 | Phillips Pipeline Co. | 0 | 0 | 0 | Storm water, intermittent use |
| 1348 | Phillips Pipeline Co. | 0 | 0 | 0 | Storm water, intermittent use |
| 1349 | Phillips Pipeline Co. | 0 | 0 | 0 | Storm water, intermittent use |
| 1350 | Litho-Strip Co. | 0.0576 | 0 | 20 | Process wastewater |
| 1351 | Litho-Strip Co. | 0 | 0 | 0 | Process wastewater, intermittent use |
| 1352 | Air Products & Chemicals | 0.0385 | 0 | 19.9 | Process wastewater |
| 1353 | Apex Oil | 0 | 0 | 0 | Storm water, intermittent use |
| 1354 | Champion International | 0 | 0 | 0 | Storm water, intermittent use |
| 1355 | Champion International | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1356 | H. Muehlstein & Co. | 0.02 | 0 | 42 | Process wastewater |
| 1357 | H. Muehlstein & Co. | 0 | 0 | 0 | Storm water, intermittent use |
| 1358 | H. Muehlstein & Co. | 0 | 0 | 0 | Storm water, intermittent use |
| 1359 | Air Products & Chemicals | 0 | 0 | 0 | Storm water, intermittent use |
| 1360 | Air Products & Chemicals | 0 | 0 | 0 | Storm water, intermittent use |
| 1361 | Paktank Gulf Coast | 0 | 0 | 0 | Storm water, intermittent use |
| 1362 | Paktank Gulf Coast | 0 | 0 | 0 | Storm water, intermittent use |
| 1363 | Denka Chemical | 0 | 0 | 0 | Storm water, intermittent use |
| 1364 | Pullman Inc. | 0.0012 | 0 | 0 | Process wastewater |
| 1365 | Explorer Pipeline Co. | 0 | 0 | 0 | Utility water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1366 | Explorer Pipeline Co. | 0 | 0 | 0 | Storm water, intermittent use |
| 1367 | Petromax Refining | 0.012 | 0 | 0 | Utility water |
| 1368 | Petromax Refining | 0 | 0 | 0 | Storm water, intermittent use |
| 1369 | Pacific Intermountain Express | 0 | 0 | 0 | Utility water, retained |
| 1370 | Hydrocarbon Trading & Transport | 0 | 0 | 0 | Storm water, intermittent use |
| 1371 | Drilco | 0.15 | 10 | 15.2 | Process wastewater |
| 1372 | Halterman, Inc. | 0.22 | 20.2 | 20.2 | Process wastewater |
| 1373 | Halterman, Inc. | 0 | 0 | 0 | Storm water, intermittent use |
| 1374 | Fosti Midstream Fueling | 0 | 0 | 0 | Storm water, intermittent use |
| 1375 | Cameron Iron Works | 0.35 | 0 | 0 | Utility water |
| 1376 | Cameron Iron Works | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1377 | Cameron Iron Works | 0 | 0 | 0 | Storm water, intermittent use |
| 1378 | Cameron Iron Works | 0 | 0 | 0 | Storm water, intermittent use |
| 1379 | Cook Paint & Varnish | 0.25 | 0 | 0 | Utility water |
| 1380 | Reed Rock Bit Co. | 0.432 | 16.7 | 33.6 | Process wastewater |
| 1381 | Celotex | 0 | 0 | 0 | Utility water, intermittent use |
| 1382 | Brown Oil Tools | 0 | 0 | 0 | Storm water, intermittent use |
| 1383 | Azrock Industries | 0.0165 | 0 | 18.9 | Utility water |
| 1384 | Azrock Industries | 0.012 | 0 | 15 | Utility water |
| 1385 | Azrock Industries | 0.0045 | 0 | 29.3 | Utility water |
| 1386 | Gulf Coast Portland Cement | 0.05 | 0 | 0 | Cooling water |
| 1387 | Gulf Coast Portland Cement | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1388 | Houston Lighting & Power | 0.4 | 0 | 3 | Utility water |
| 1389 | Houston Lighting & Power | 0 | 0 | 0 | Utility water, intermittent use |
| 1390 | Houston Lighting & Power | 0 | 0 | 0 | Utility water, intermittent use |
| 1391 | Armco Steel | 0.075 | 0 | 0 | Process wastewater |
| 1392 | American Thermoplastics | 0 | 0 | 0 | Storm water, intermittent use |
| 1393 | American Thermoplastics | 0 | 0 | 0 | Storm water, intermittent use |
| 1394 | Southern Pacific Transportation | 0.15 | 20 | 20 | Process wastewater |
| 1395 | Missouri-Kansas-Texas Railroad | 0 | 0 | 0 | Storm water, intermittent use |
| 1396 | Murray Rubber | 0.01 | 0 | 0 | Process wastewater, retained |
| 1397 | National Steel Products | 0.019 | 0 | 0 | Storm water, retained |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1398 | Cameron Iron Works | 0 | 0 | 0 | Storm water, intermittent use |
| 1399 | Houston Natural Gas | 0.1 | 0 | 10 | Utility water |
| 1400 | Houston Natural Gas | 0.1 | 0 | 10 | Utility water |
| 1401 | American Porcelain Enameling | 0.01 | 0 | 20.4 | Process wastewater |
| 1402 | Plastic and Rubber Products Inc. | 0.01 | 20.4 | 20.4 | Domestic wastewater |
| 1403 | Pilot Industries of Texas | 0.014 | 23.1 | 36.8 | Utility water |
| 1404 | Houston Belt & Terminal Rail | 0.004 | 0 | 0 | Utility water |
| 1405 | P A Inc. | 0.036 | 0 | 50 | Process wastewater |
| 1406 | Igloo Corp. | 0.025 | 16.3 | 16.3 | Domestic wastewater |
| 1407 | Igloo Corp. | 0.02 | 20.4 | 20.4 | Domestic wastewater |
| 1408 | Igloo Corp. | 0.005 | 0 | 0 | Cooling water |
| 1409 | Allstates Chemical | 0.006 | 20 | 20 | Utility water |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1410 | Houston Solvents & Chemicals | 0 | 0 | 0 | Storm water, intermittent use |
| 1411 | Houston Solvents & Chemicals | 0.003 | 0 | 0 | Process wastewater |
| 1412 | Helmerick and Payne | 0.015 | 0 | 30.4 | Utility water |
| 1413 | Can-go Corp. | 0.0032 | 0 | 0 | Utility water, retained |
| 1414 | Chemical Exchange Co. | 0.09 | 12 | 17.3 | Process wastewater |
| 1415 | Exxon Chemical | 0 | 0 | 0 | Storm water, intermittent use |
| 1416 | Texas Olefins | 0 | 0 | 0 | Utility water, intermittent use |
| 1417 | E. I. DuPont | 8.3 | 11.6 | 11.6 | Process wastewater; $NH_3$, 10.8 mg/l |
| 1418 | E. I. DuPont | 0 | 0 | 0 | Storm water, intermittent use |
| 1419 | E. I. DuPont | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1420 | E. I. DuPont | 0 | 0 | 0 | Storm water, intermittent use |
| 1421 | E. I. DuPont | 2.5 | 38.4 | 38.4 | Process wastewater |
| 1422 | E. I. DuPont | 0 | 0 | 0 | Utility water, intermittent use |
| 1423 | US Industrial Chemical | 1.4 | 20 | 50 | Process wastewater |
| 1424 | US Industrial Chemical | 0.59 | 25 | 40 | Process wastewater |
| 1425 | US Industrial Chemical | 0 | 0 | 0 | Storm water, intermittent use |
| 1426 | Upjohn | 1.5 | 17.7 | 43.2 | Process wastewater; $NH_3$, 10.7 mg/l |
| 1427 | Upjohn | 0 | 0 | 0 | Storm water, intermittent use |
| 1428 | Houston Lighting & Power Sam Bertron Station | 740.2 | 0 | 0 | Cooling water, once through |
| 1429 | Houston Lighting & Power Sam Bertron Station | 0 | 0 | 0 | Utility water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1430 | Houston Lighting & Power Sam Bertron Station | 0 | 0 | 0 | Utility water, intermittent use |
| 1431 | Houston Lighting & Power Sam Bertron Station | 0 | 0 | 0 | Utility water, intermittent use |
| 1432 | Houston Lighting & Power Sam Bertron Station | 0 | 0 | 0 | Cooling water, intermittent use |
| 1433 | Houston Lighting & Power Sam Bertron Station | 0 | 0 | 0 | Utility water, intermittent use |
| 1434 | Greif Bros. | 0.07 | 0 | 0 | Cooling water |
| 1435 | Thiokol Corp. | 0.06 | 12 | 26 | Process wastewater |
| 1436 | Thiokol Corp. | 0 | 0 | 0 | Storm water, intermittent use |
| 1437 | Air Products & Chemicals | 0.62 | 0 | 20.1 | Utility water |
| 1438 | Air Products & Chemicals | 0 | 0 | 0 | Domestic wastewater, intermittent use |
| 1439 | Ohmstede Machine Works | 0.085 | 0 | 0 | Process wastewater |
| 1440 | Pearsall Chemical | 0.1 | 0 | 0 | Utility water |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1441 | E. I. DuPont | 0.006 | 20 | 20 | Domestic wastewater |
| 1442 | USS Novamont Corp. | 0.352 | 20.4 | 56.2 | Utility water |
| 1443 | USS Novamont Corp. | 0 | 0 | 0 | Storm water, intermittent use |
| 1444 | E. I. DuPont | 0.3 | 42 | 31.6 | Process wastewater |
| 1445 | E. I. DuPont | 0.865 | 0 | 0 | Utility water |
| 1446 | E. I. DuPont | 0 | 0 | 0 | Storm water, intermittent use |
| 1447 | Cardox | 0.09 | 0 | 0 | Utility water |
| 1448 | Cardox | 0.0015 | 0 | 0 | Utility water |
| 1449 | Lemm Corp. | 0 | 0 | 0 | Storm water, intermittent use |
| 1450 | Lemm Corp. | 0 | 0 | 0 | Storm water, intermittent use |
| 1451 | Exxon Chemical | 0 | 0 | 0 | Storm water, intermittent use |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1452 | Exxon Chemical | 0 | 0 | 0 | Storm water, intermittent use |
| 1453 | Exxon Chemical | 1.06 | 0 | 0 | Utility water |
| 1454 | Hi-Port Industries | 0.115 | 29.2 | 34.4 | Utility water |
| 1455 | Tenneco | 0 | 0 | 0 | Utility water, retained |
| 1456 | Texas Gulf, Inc. | 0.041 | 0 | 20 | Process wastewater; Oil and grease, 15 mg/l |
| 1457 | Texas Gulf, Inc. | 4.5 | 20 | 30 | Process wastewater; Oil and grease, 10 mg/l |
| 1458 | Texas Gulf, Inc. | 22.6 | 20 | 30 | Process wastewater; Oil and grease, 10 mg/l |
| 1459 | Independent Refining Corp. | 0.6 | 16 | 12.6 | Process wastewater |
| 1460 | Independent Refining Corp. | NA | NA | NA | NA |
| 1461 | Arco Polymers | 0 | 0 | 0 | Utility water, intermittent use |
| 1462 | Velsicol Chemical | 2.5 | 0 | 3 | Oil and grease, 1 mg/l |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1463 | Goodyear Tire & Rubber | 1.4 | 28.3 | 30 | Process wastewater |
| 1464 | Bredoro Price | 0.003 | 0 | 28 | NA |
| 1465 | Duval Corp. | 0.35 | 0 | 30 | Process wastewater; COD, 75 mg/l |
| 1466 | Duval Corp. | NA | NA | NA | NA |
| 1467 | Todd Shipyards | 0.032 | 20 | 20 | Process wastewater |
| 1468 | McGinnes Industrial Maintenance | 1 | 25 | 60 | Process wastewater; Cd, 1 mg/l; As, 1 mg/l; Cu, 1 mg/l; Ni, 1 mg/l; Hg, 1 mg/l |
| 1469 | Houston Lighting & Power | 0 | 0 | 30 | Cooling water, intermittent use |
| 1470 | Houston Lighting & Power | 0 | 0 | 30 | Cooling water, intermittent use |
| 1471 | Marathon Oil | 2.2 | 20.2 | 13.2 | Process wastewater; $NH_3$, 16.4 mg/l |
| 1472 | Marathon-Morco | 0.075 | 32 | 32 | NA |

continued

Table 2 (continued).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1473 | GAF Corp. | 0.38 | 18.3 | 41.4 | Process wastewater |
| 1474 | Gulf Chemical and Metallurgical | 0.576 | 3.2 | 30 | Process wastewater |
| 1475 | Marathon Oil | 2.2 | 20.2 | 13.2 | Process wastewater |
| 1476 | Amoco Chemicals | NA | NA | NA | NA |
| 1477 | Amoco Chemicals | 0 | 0 | 0 | Utility water, intermittent use |
| 1478 | Gulf Coast Waste Disposal Authority | 15.7 | 29.8 | 45.9 | Process wastewater; $NH_3$, 24.8 mg/l |
| 1479 | Union Carbide | 0 | 0 | 0 | Utility water, intermittent use |
| 1480 | Monsanto | 0.25 | 0 | 30 | Process wastewater |
| 1481 | Amoco Chemicals | NA | NA | NA | NA |
| 1482 | Amoco Oil | 23 | 27 | 24.4 | Process wastewater |
| 1483 | Reagent Chemical and Research | 0.01 | 0 | 24 | Process wastewater |

continued

Table 2 (concluded).

| Site No. | Facility | Flow (MGD)* | BOD (mg/l)** | TSS (mg/l)** | Other Effluent Data |
|---|---|---|---|---|---|
| 1484 | Amoco Chemical | 8 | 19.5 | 37.7 | Process wastewater |
| 1485 | Monsanto | 7.8 | 18.5 | 50.4 | Process wastewater |
| 1486 | A. P. Green Refractories | 0.04 | 0 | 25.2 | NA |
| 1487 | Phillips Petroleum | 5.2 | 20.8 | 36 | Process wastewater |
| 1488 | Texas Gulf, Inc. | 0.82 | 20 | 30 | Process wastewater; Oil and grease, 10 mg/l |
| 1489 | Texas Gulf, Inc. | 12.5 | 24 | 36 | Process wastewater |
| 1490 | Texas Gulf, Inc. | 0 | 0 | 30 | Utility water, intermittent use |
| 1491 | Texas Gulf, Inc. | NA | NA | NA | NA |

*Million gallons per day unless otherwise noted.

**Milligrams per liter unless otherwise noted.

Table 3. Inventory of active hazardous waste disposal sites.

| Site No. | Facility | Type | Design Capacity | Major Waste Categories |
|---|---|---|---|---|
| 2000 | Armco | Landfill | 17.4 acre-feet | K061<br>Steel production wastes |
| 2001 | Celanese Chemical | Landfill | NA | Inorganic chemical production wastes |
| 2002 | Chemical Waste Management of Texas | Landfill | NA | Various wastes, commercial disposal |
| 2003 | Diamond-Shamrock | Landfill | NA | Organic and inorganic chemical production wastes |
| 2004 | GAF Corp. | Landfill | 60 acre-feet | D001, D003<br>Organic chemical production wastes |
| 2005 | Gulf Coast Waste Disposal Authority | Landfill | 2,400 acre-feet | Various wastes, commercial disposal |
| 2006 | Rohm and Hass | Landfill | 13,100 acre-feet | U013, D002, D003<br>Organic and inorganic chemical production wastes |
| 2007 | Shell Chemical | Landfill | 400 acre-feet | D000<br>Petrochemical production wastes |

continued

Table 3 (continued).

| Site No. | Facility | Type | Design Capacity | Major Waste Categories |
|---|---|---|---|---|
| 2008 | Shell Oil | Landfill | 30 acre-feet | D000<br>Petroleum refining wastes |
| 2009 | Sweeney Refinery and Petrochemical Complex | Landfill | NA | Petroleum refining wastes, petrochemical production wastes |
| 2010 | Quanex Corp. | Landfill | 10 acre-feet | F017, F018<br>Metals manufacturing wastes |
| 2011 | Rollins Environmental Services | Landfill | 1,870 acre-feet | Various wastes, commercial disposal |
| 2100 | Air Products & Chemicals | Surface impoundment | 350,000 gallons | D002<br>Organic chemical production wastes |
| 2101 | Arco Petroleum Products | Surface impoundment | 84,000,000 gallons | K051<br>Petroleum refining wastes, petrochemical production wastes |
| 2102 | Armco | Surface impoundment | 8,695,669 gallons | K087<br>Steel production wastes |
| 2103 | C-E Natco Chemicals | Surface impoundment | 130,000 gallons | F003, F005, U122, U188, U196, U220<br>Petroleum refining wastes |

continued

Table 3 (continued).

| Site No. | Facility | Type | Design Capacity | Major Waste Categories |
|---|---|---|---|---|
| 2104 | Celanese Chemical | Surface impoundment | NA | Inorganic chemical production wastes |
| 2105 | Chemical Exchange Industries | Surface impoundment | NA | F003, K051 Waste treatment |
| 2106 | Chemical Leaman Tank Lines | Surface impoundment | 58,800 gallons | Other |
| 2107 | Chemical Waste Management of Texas | Surface impoundment | NA | Various wastes, commercial disposal |
| 2108 | Crown Central Petroleum | Surface impoundment | 6,300,000 gal/day | P022, P110, U019, U077, U134, U211 Petroleum refining wastes |
| 2109 | Drew Chemical | Surface impoundment | 504,000 gallons | D002 Inorganic chemical production wastes |
| 2110 | E. I. DuPont | Surface impoundment | NA | Inorganic chemical production wastes |
| 2111 | Ethyl Corporation | Surface impoundment | 23,979,318 gallons | K069, P110, U012, D008, D003 D002 Organic chemical production wastes |

continued

Table 3 (continued).

| Site No. | Facility | Type | Design Capacity | Major Waste Categories |
|---|---|---|---|---|
| 2112 | Exxon | Surface impoundment | 7,020,000 gallons | K051<br>Petroleum refining wastes |
| 2113 | FMC Corp. | Surface impoundment | NA | Inorganic chemical production wastes |
| 2114 | GAF Corp. | Surface impoundment | 9,920,000 gallons | D002<br>Organic chemical production wastes |
| 2115 | Gulf Chemical and Metallurgical | Surface impoundment | 19,000,000 gallons | D002, F006<br>Inorganic chemical production wastes, metals manufacturing wastes |
| 2116 | Gulf Chemical and Metallurgical | Surface impoundment | NA | D002, F006<br>Inorganic chemical production wastes, metals manufacturing wastes |
| 2117 | Houston Lighting & Power Robinson Station | Surface impoundment | 4,259,600 gallons | D002, D000, D007<br>Electric power production wastes |
| 2118 | Houston Lighting & Power Deepwater Station | Surface impoundment | 610,024,000 gallons | D002, D000, D007<br>Electric power production wastes |

continued

Table 3 (continued).

| Site No. | Facility | Type | Design Capacity | Major Waste Categories |
|---|---|---|---|---|
| 2119 | Houston Lighting & Power Greens Bayou Station | Surface impoundment | 4,214,000 gallons | D002, D000, D007 Electric power production wastes |
| 2120 | Houston Lighting & Power H. O. Clarke Station | Surface impoundment | 1,312,000 gallons | D002, D000, D007 Electric power production wastes |
| 2121 | Houston Lighting & Power T. H. Wharton Station | Surface impoundment | 6,024,000 gallons | D002, D000, D007 Electric power production wastes |
| 2122 | Houston Lighting & Power Webster Station | Surface impoundment | 912,024,000 gallons | D002, D000, D007 Electric power production wastes |
| 2123 | Houston Lighting & Power W. A. Parish Station | Surface impoundment | 6,500,000 gallons | D002, D000, D007 Electric power production wastes |
| 2124 | Intercontinental Terminals | Surface impoundment | 2,160,000 gallons | P069 Other |
| 2125 | Denka Chemicals | Surface impoundment | 1,200,000 gallons | D002, U147, U154, U239, U210 Organic chemical production wastes |

continued

Table 3 (continued).

| Site No. | Facility | Type | Design Capacity | Major Waste Categories |
|---|---|---|---|---|
| 2126 | Jones Chemicals | Surface impoundment | 280,000 gallons | D002 Inorganic chemical production wastes |
| 2127 | Keeshan and Bost Chemicals | Surface impoundment | 57,600 gallons | U001, U002, U019, U031, U112, U125, U140, D001 Petrochemical production wastes |
| 2128 | Koppers Co. | Surface impoundment | 250 gallons | K035 Other |
| 2129 | Magna Corp. | Surface impoundment | NA | Inorganic chemical production wastes |
| 2130 | Monsanto | Surface impoundment | NA | Organic chemical production wastes |
| 2131 | Pasadena Chemical | Surface impoundment | 4,000,000 gallons | D002 Inorganic chemical production wastes |
| 2132 | Petrolite Corp. | Surface impoundment | 55,000 gallons | D001 Organic chemical production wastes |
| 2133 | Phillips Chemical Co. | Surface impoundment | 179,020 gal/day | D007, D002 Organic chemical production wastes |

continued

Table 3 (continued).

| Site No. | Facility | Type | Design Capacity | Major Waste Categories |
|---|---|---|---|---|
| 2134 | Quanex Corp. | Surface impoundment | 506,000 gal/day | K062, K063 Metals manufacturing wastes |
| 2135 | Richmond Tank Car Co. | Surface impoundment | 1,963,500 gallons | D000 Other |
| 2136 | Rohm and Haas | Surface impoundment | 11,200,000 gal/day | D002 Organic chemical production wastes |
| 2137 | Service Transport Co. | Surface impoundment | 450,000 gallons | D000, D001 Other |
| 2138 | Shell Chemical | Surface impoundment | 31,000,000 gallons | D000 Petrochemical production wastes |
| 2139 | Shell Chemical | Surface impoundment | 13,000,000 gal/day | D000 Petrochemical production wastes |
| 2140 | Shell Oil | Surface impoundment | 17,600,000 gallons | Petroleum refining wastes, petrochemical production wastes |
| 2141 | Sweeney Refinery and Petrochemical Complex | Surface impoundment | NA | Petroleum refining wastes, petrochemical production wastes |

continued

Table 3 (continued).

| Site No. | Facility | Type | Design Capacity | Major Waste Categories |
|---|---|---|---|---|
| 2142 | Syngas Co. | Surface impoundment | 500,000 gallons | F001<br>Organic chemical production wastes |
| 2143 | Tenneco Chemicals | Surface impoundment | 31,000 gal/day | K020, D001, D002, U002, U012<br>Organic chemical production wastes |
| 2144 | Upjohn Co. | Surface impoundment | 10,877,000 gallons | U122, U154, U188, D001, D002<br>Organic chemical production wastes |
| 2145 | US Steel, Chemicals Division | Surface impoundment | 988,000 gallons | D007, K051, K049<br>Petrochemical production wastes |
| 2146 | US Steel | Surface impoundment | 720,000 gal/day | K061<br>Steel manufacturing wastes |
| 2147 | Witco, Organics Div. | Surface impoundment | 2,200,000 gallons | D007, F003, F005, P003, P012, P086, U031, others<br>Organic and inorganic chemical production wastes |
| 2148 | American Cyanamid | Surface impoundment | 15,300,000 gallons | P053<br>Inorganic chemical production wastes |

continued

Table 3 (continued).

| Site No. | Facility | Type | Design Capacity | Major Waste Categories |
|---|---|---|---|---|
| 2149 | Morton Chemical | Surface impoundment | 1,200,000 gallons | D001 Inorganic chemical production wastes |
| 2150 | Morton Chemical | Surface impoundment | 700,000 gal/day | D002 Inorganic chemical production wastes |
| 2151 | New Orleans Public Service | Surface impoundment | NA | Not available |
| 2152 | West Jefferson General Hospital | Surface impoundment | NA | Other |
| 2153 | Good Hope Refinery | Surface impoundment | 2,880,000 gal/day | K048, K051 Petroleum refining wastes |
| 2154 | Witco Chemical | Surface impoundment | 450,000 gallons | D001, D003 Organic and inorganic chemical production wastes |
| 2200 | Arco Chemical | Underground injection well | 591,300,000 gallons | D002 Organic chemical production wastes |
| 2201 | Celanese Chemical | Underground injection well | NA | Inorganic chemical production wastes |

continued

Table 3 (continued).

| Site No. | Facility | Type | Design Capacity | Major Waste Categories |
|---|---|---|---|---|
| 2202 | Empak | Underground injection well | 18,000 gal/hr | D001, D002, D004, F001, F002, F003, others<br>Various wastes, commercial disposal |
| 2203 | GAF Corp. | Underground injection well | 970,000 gal/day | P102, U122, D002<br>Organic chemical production wastes |
| 2204 | Shell Chemical | Underground injection well | 6,300,000,000 gallons | D000<br>Petrochemical production wastes |
| 2205 | Witco, Organics Div. | Underground injection well | 15,000 gal/hr | F003, F005, P051, P053, P090, U031, others<br>Organic and inorganic chemical production wastes |
| 2206 | American Cyanamid | Underground injection well | NA | P053, D002<br>Inorganic chemical production wastes |
| 2207 | Witco Chemical | Underground injection well | NA | D001, D003<br>Organic and inorganic chemical production wastes |
| 2300 | Amoco Oil | Landfarm | 215 acres | K048, K049, K050, K051, U002, U019, U154, U220, U239<br>Petroleum refining wastes |

continued

Table 3 (continued).

| Site No. | Facility | Type | Design Capacity | Major Waste Categories |
|---|---|---|---|---|
| 2301 | Celanese Chemical | Landfarm | NA | Inorganic chemical production wastes |
| 2302 | Crown Central Petroleum | Landfarm | 176 acres | K049, K050, K051, P022, P110, U019, U133, others<br>Petroleum refining wastes |
| 2303 | Exxon | Landfarm | 40 acres | K051<br>Petroleum refining wastes |
| 2304 | Quanex | Landfarm | 6.8 acres | K063<br>Metals manufacturing wastes |
| 2305 | Sweeney Refinery and Petrochemical Complex | Landfarm | NA | Petroleum refining wastes, petrochemical production wastes |
| 2400 | Arco Petroleum Products | Waste pile | 50 cubic yards | K051, K052<br>Petroleum refining wastes, petrochemical production wastes |
| 2401 | Gulf Chemical and Metallurgical | Waste pile | 347 cubic meters | D000<br>Inorganic chemical production wastes, metals manufacturing wastes |
| 2402 | Gulf Coast Waste Disposal Authority | Waste pile | NA | Various wastes, commercial disposal |

continued

Table 3 (concluded).

| Site No. | Facility | Type | Design Capacity | Major Waste Categories |
|---|---|---|---|---|
| 2403 | Hercules, Inc. | Waste pile | 600 cubic yards | D007, P090 Inorganic chemical production wastes |
| 2404 | Shell Chemical | Waste pile | 30,000 cubic yards | Petrochemical production wastes |
| 2405 | Shell Oil | Waste pile | 30,000 cubic yards | Petroleum refining wastes |
| 2406 | Gulf Oil Chemicals | Waste pile | 12,000 cubic yards | D007 Petrochemical production wastes |

Table 4. Inventory of inactive waste disposal sites.

| Site No. | Facility | Disposal Period | Waste Type | Source | Facility Type |
|---|---|---|---|---|---|
| 3000 | Platzer Shipyard | 1960 - 1981 | Organics, inorganics, acids, bases | Other Washing oil and chemical barges | Underground tanks |
| 3001 | Cypress Facility (Cameron Iron Works) | 1968 - 1978 | K061 | Steel production wastes | Landfill |
| 3002 | Witco Chemical | Prior to 1974 | Organics, acids | Organic chemical production wastes | Landfill |
| 3003 | Mobay Chemical | 1972 - 1981 | NA | NA | NA |
| 3004 | Diamond-Shamrock Deer Park Works | 1948 - 1981 | Organics, inorganics, solvents, heavy metals, acids, bases | Organic and inorganic chemical production wastes | Landfill, surface impoundment |
| 3005 | E. I. DuPont Houston Plant | 1952 - 1975 | D013, D003, P024 | Organic chemical production wastes | NA |
| 3006 | Rohm and Haas | 1980 | NA | NA | Landfill |
| 3007 | Diamond-Shamrock Monument Plant | 1967 - 1977 | Organics | Organic chemical production wastes | Surface impoundment |
| 3008 | Quaker Oats Co. Bayport Plant | 1976 - 1981 | NA | NA | NA |

continued

Table 4 (continued).

| Site No. | Facility | Disposal Period | Waste Type | Source | Facility Type |
|---|---|---|---|---|---|
| 3009 | Rollins Environmental Services | 1981 | NA | Commercial disposal | NA |
| 3010 | Rohm and Haas | 1966 - 1978 | Organics, biological sludge, polymers/tars | Organic chemical production wastes | Landfill, surface impoundment |
| 3011 | Unknown (Monsanto) | 1955 - 1961 | Solvents, heavy metals, acids, bases | Inorganic chemical production wastes | Surface impoundment |
| 3012 | Union Oil | 1923 - 1973 | K052, D003 | Petroleum refining wastes | Landfill, surface impoundment |
| 3013 | Old French Limited | Late 1950's-1972 | Organics, heavy metals, hydrocarbons, PCB's | Petrochemical production wastes | Surface impoundment |
| 3014 | Monsanto | 1969 - 1981 | Organics, inorganics, heavy metals, acids, bases | Inorganic chemical production wastes | Surface impoundment |
| 3015 | Monsanto | 1954 - 1980 | Organics, inorganics, solvents, heavy metals, acids, bases | Inorganic chemical production wastes | Landfill, surface impoundment |
| 3016 | Rollins Environmental Services | 1977 - 1980 | Organics, inorganics | Inorganic chemical production wastes | Landfill |

continued

Table 4 (continued).

| Site No. | Facility | Disposal Period | Waste Type | Source | Facility Type |
|---|---|---|---|---|---|
| 3017 | Armco Houston Works | 1965 - 1980 | Acids | Steel production wastes | Surface impoundment |
| 3018 | Armco Houston Works | 1976 - 1980 | Acids, F087 | Steel production wastes | Landfill |
| 3019 | Armco Houston Works | 1950 - 1970 | Acids, K062 | Steel production wastes | Landfill |
| 3020 | Armco Houston Works | 1954 - 1973 | Acids, K062, F087 | Steel production wastes | Landfill |
| 3021 | Sugar Land City Dump | 1966 - 1969 | Organics, solvents, acids, D001 | Organic chemical production wastes | Landfill |
| 3022 | Texas Alkyls | 1959 - 1979 | Organics, solvents, heavy metals, bases, D001, D003 | Organic chemical production wastes | Landfill, surface impoundment |
| 3023 | Rollins Environmental Services | 1975 - 1977 | NA | Organic chemical production wastes | Landfill |
| 3024 | Calgon | 1975 | Activated carbon impregnated with chromium | NA | Landfill |
| 3025 | Southern Pacific Railroad | 1954 - 1980 | NA | Other | Landfill |

continued

Table 4 (continued).

| Site No. | Facility | Disposal Period | Waste Type | Source | Facility Type |
|---|---|---|---|---|---|
| 3026 | Browning-Ferris Industries | NA | NA | NA | NA |
| 3027 | SPT Co. Wood Preserving Works | 1980 | U188, U051, K001 | Other | Surface impoundment |
| 3028 | Shell Oil | 1929 - 1980 | Organics, inorganics, solvents, acids, bases | Petroleum refining wastes | Landfill |
| 3029 | Empak | 1980 | Organics, inorganics, bases | Petroleum refining wastes | Underground injection well |
| 3030 | Malone Service Company | 1975 - 1980 | Organics, inorganics | Petroleum refining wastes | Underground injection well |
| 3031 | Property owned by Milestone Properties | 1950 - 1975 (approximate) | Heavy metals | Metals manufacturing wastes | Landfill, waste pile |
| 3032 | Ideal Basic Industries Plant Site | 1940 - 1980 | Heavy metals | Other | Landfill |
| 3033 | Pasadena Chemical | 1944 - 1981 | NA | NA | NA |

continued

Table 4 (continued).

| Site No. | Facility | Disposal Period | Waste Type | Source | Facility Type |
|---|---|---|---|---|---|
| 3034 | Rollins Environmental Services | 1971 - 1980 | Organics, inorganics, solvents, pesticides, heavy metals, acids, bases | Commercial disposal | Landfill, surface impoundment, waste pile |
| 3035 | Rollins Environmental Services | 1971 - 1980 | Organics, inorganics, solvents, pesticides, heavy metals, acids, bases | Commercial disposal | Landfill, surface impoundment, waste pile |
| 3036 | Olin Corp. Houston Plant | 1938 - 1972 (approximate) | U129, P037, P004, U061, U036, P059, P123, P089 | Other Pesticide manufacturing | Landfill |
| 3037 | Holmes Rd. Landfill | 1971 - 1979 | NA | Commercial disposal | Landfill |
| 3038 | Galveston Co. Landfill | NA | NA | Commercial disposal | Landfill |
| 3039 | US Steel Chemicals | 1952 - 1960 (noncontinuous) | Organics, acids | Petrochemical production wastes | Surface impoundment |
| 3040 | Exxon | 1919 - 1980 | Organics, others | Petroleum refining wastes | Landfill, surface impoundment, land treatment |

continued

Table 4 (continued).

| Site No. | Facility | Disposal Period | Waste Type | Source | Facility Type |
|---|---|---|---|---|---|
| 3041 | Warren Petroleum | NA | NA | NA | NA |
| 3042 | Union Carbide | 1941 - 1980 | Organics, solvents, acids, bases | Organic chemical production wastes | Surface impoundment |
| 3043 | Union Carbide | 1952 - 1980 | Organics, solvents, acids, bases | Organic chemical production wastes | Landfill, surface impoundment |
| 3044 | Arco Polymers | 1952 - 1967 | Organics, acids, bases | Organic chemical production wastes | Surface impoundment |
| 3045 | Monsanto | 1962 - 1980 | Organics | Organic chemical production wastes | Landfill |
| 3046 | Dixie Chemical | 1974 - 1980 | Organics, acids, bases | Organic chemical production wastes | Surface impoundment |
| 3047 | Van Wagner Chemical | 1971 - 1980 | Inorganics, acids | Inorganic chemical production wastes | Surface impoundment |
| 3048 | Gulf Oil | 1935 - 1980 | K048, K050, K051 | Petroleum refining wastes | Landfill, surface impoundment |
| 3049 | Tenneco Chemicals | 1976 - 1980 | D003 | Petrochemical production wastes | Landfill |

continued

Table 4 (continued).

| Site No. | Facility | Disposal Period | Waste Type | Source | Facility Type |
|---|---|---|---|---|---|
| 3050 | Conservation Services | NA | NA | NA | Landfill |
| 3051 | Arco Petroleum Products | 1919 - 1980 | K049, K050, K051, K052 | Petroleum refining wastes | Landfill |
| 3052 | Browning-Ferris Industries | NA | NA | Commercial disposal | Landfill |
| 3053 | Old Beaumont Highway Landfill | NA | NA | Commercial disposal | Landfill |
| 3054 | Port Arthur Refinery (Gulf Oil Chemicals) | 1953 - 1980 | Acids, paints and pigments, oils and sludges | Petrochemical production wastes | Landfill, surface impoundment |
| 3055 | Witco Chemical | 1957 - 1978 | Organics D001, D002, D003 | Organic chemical production wastes | Landfill |
| 3056 | Henry Offshore Separation Facility (Texaco Inc.) | 1973 - 1974 | Chromium salts, zinc salts | Other | Surface impoundment |
| 3057 | Norco Manufacturing | NA | NA | NA | NA |
| 3058 | Norco Manufacturing | NA | NA | NA | NA |

continued

Table 4 (continued).

| Site No. | Facility | Disposal Period | Waste Type | Source | Facility Type |
|---|---|---|---|---|---|
| 3059 | Amsted Industries, Plexco Div. | 1975 | U013 | Other | Landfill |
| 3060 | Pan-Am Southern Corp. | 1915 - 1958 (approximate) | Organics, heavy metals, acids, bases | Petroleum refining wastes | Landfill, surface impoundment |
| 3061 | Hooker Chemicals and Plastics | 1966 - 1981 | Organics, inorganics, solvents, acids, bases, PCB's | Organic and inorganic chemical production wastes | Landfill, surface impoundment |
| 3062 | Browning-Ferris Industries | 1970 - 1978 | Various | Commercial disposal | Landfill |
| 3063 | Browning-Ferris Industries | 1972 - 1980 | Various | Commercial disposal | Landfill |
| 3064 | Browning-Ferris Industries | 1963 - 1980 | Various | Commercial disposal | Landfill |
| 3065 | Browning-Ferris Industries | 1974 - 1978 | Various | Commercial disposal | Landfill |
| 3066 | Jefferson Disposal | 1973 - 1980 | Solvents, others | Commercial disposal | Landfill |
| 3067 | Pelican State Landfill | 1972 - 1980 | Solvents, others | Commercial disposal | Landfill |

continued

Table 4 (concluded).

| Site No. | Facility | Disposal Period | Waste Type | Source | Facility Type |
|---|---|---|---|---|---|
| 3068 | American Cyanamid Fortier Plant | 1953 - 1981 | Organics, inorganics, heavy metals, acids, bases | Inorganic chemical production wastes | Landfill |
| 3069 | Lajet, Inc. | 1979 | K049, K050, K051 | Petroleum refining wastes | Landfill |
| 3070 | Allied Corp. Marrero Works | 1947 - 1978 | Organics, inorganics, solvents, pesticides, heavy metals | Organic chemical production wastes | Landfill |
| 3071 | Texaco Convent Refinery | 1970 - 1979 | K049, K050, K051 | Petroleum refining wastes | Landfill, underground injection well |
| 3072 | Union Carbide East Area-Taft Plant | 1972 - 1976 | Organics, inorganics | Organic chemical production wastes | Landfill |
| 3073 | Union Carbide South Landfill-Taft Plant | 1966 - 1979 | Organics, solvents, heavy metals | Organic chemical production wastes | Landfill |
| 3074 | Monsanto Luling Plant | 1957 - 1979 | Organics, inorganics, heavy metals, pesticides | Organic chemical production wastes | Landfill |
| 3075 | Monsanto Luling Plant | 1957 - 1979 | Organics, inorganics, heavy metals, pesticides | Organic chemical production wastes | Landfill |

## PART 4

## LIST OF SOURCES

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# APPENDIX

## RCRA HAZARDOUS WASTE CODES

### GENERAL HAZARDOUS WASTE CHARACTERISTICS

| | |
|---|---|
| D000 | TOXIC (T) |
| D001 | IGNITABLE (I) |
| D002 | CORROSIVE (C) |
| D003 | REACTIVE (R) |

### MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTICS OF EP TOXICITY

| EPA Hazardous Waste Number | Contaminant | Maximum Concentration (mg/l) |
|---|---|---|
| D004 | Arsenic | 5.0 |
| D005 | Barium | 100.0 |
| D006 | Cadmium | 1.0 |
| D007 | Chromium | 5.0 |
| D008 | Lead | 5.0 |
| D009 | Mercury | 0.2 |
| D010 | Selenium | 1.0 |
| D011 | Silver | 5.0 |
| D012 | Endrin (1,2,3,4,10,10-hexachloro-1,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo, endo-5,8-dimethano naphthalene) | 0.02 |
| D013 | Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer) | 0.4 |
| D014 | Methoxychlor (1,1,1-Trichloro-2,2-bis (p-methoxyphenyl) ethane) | 10.0 |
| D015 | Toxaphene ($C_{10}H_{10}Cl_8$, Technical chlorinated camphene, 67-69 percent chlorine) | 0.5 |
| D016 | 2,4-D, (2,4-Dichlorophenoxyacetic acid) | 10.0 |
| D017 | 2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid) | 1.0 |

SOURCE: Federal Register. Rules and regulations. 1980 May 19; vol. 45, no. 98.

## HAZARDOUS WASTE FROM NONSPECIFIC SOURCES

| Industry and EPA Hazardous Waste Number | Hazardous Waste |
|---|---|
| Generic | |
| F001 | The spent halogenated solvents used in degreasing, tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and the chlorinated fluorocarbons; and sludges from the recovery of these solvents in degreasing operations. |
| F002 | The spent halogenated solvents, tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, o-dichlorobenzene, trichlorofluoromethane, and the still bottoms from the recovery of these solvents. |
| F003 | The spent nonhalogenated solvents, xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, n-butyl alcohol, cyclohexanone, and the still bottoms from the recovery of these solvents. |
| F004 | The spent nonhalogenated solvents, cresols and cresylic acid, nitrobenzene, and the still bottoms from the recovery of these solvents. |
| F005 | The spent nonhalogenated solvents, methanol, toluene, methyl ethyl ketone, methyl isobutyl ketone, carbon disulfide, isobutanol, pyridine, and the still bottoms from the recovery of these solvents. |
| F006 | Wastewater treatment sludges from electroplating operations. |
| F007 | Spent plating bath solutions from electroplating operations. |
| F008 | Plating bath sludges from the bottom of plating baths from electroplating operations. |
| F009 | Spent stripping and cleaning bath solutions from electroplating operations. |
| F010 | Quenching bath sludge from oil baths from metal heat treating operations. |
| F011 | Spent solutions from salt bath pot cleaning from metal heat treating operations. |

HAZARDOUS WASTE FROM NONSPECIFIC SOURCES (continued)

| Industry and EPA Hazardous Waste Number | Hazardous Waste |
|---|---|
| F012 | Quenching wastewater treatment sludges from metal heat treating operations. |
| F013 | Flotation tailings from selective flotation from mineral metals recovery operations. |
| F014 | Cyanidation wastewater treatment tailing pond sediment from mineral metals recovery operations. |
| F015 | Spent cyanide bath solutions from mineral metals recovery operations. |
| F016 | Dewatered air pollution control scrubber sludges from coke ovens and blast furnaces. |

HAZARDOUS WASTE FROM SPECIFIC SOURCES

| Industry and EPA Hazardous Waste Number | Hazardous Waste |
|---|---|
| Wood Preservation: | |
| K001 | Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol. |
| Inorganic Pigments: | |
| K002 | Wastewater treatment sludge from the production of chrome yellow and orange pigments. |
| K003 | Wastewater treatment sludge from the production of molybdate orange pigments. |
| K004 | Wastewater treatment sludge from the production of zinc yellow pigments. |
| K005 | Wastewater treatment sludge from the production of chrome green pigments. |
| K006 | Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated). |

HAZARDOUS WASTE FROM SPECIFIC SOURCES (continued)

| Industry and EPA Hazardous Waste Number | Hazardous Waste |
|---|---|
| K007 | Wastewater treatment sludge from the production of iron blue pigments. |
| K008 | Oven residue from the production of chrome oxide green pigments. |
| Organic Chemicals: | |
| K009 | Distillation bottoms from the production of acetaldehyde from ethylene. |
| K010 | Distillation side cuts from the production of acetaldehyde from ethylene. |
| K011 | Bottom stream from the wastewater stripper in the production of acrylonitrile. |
| K012 | Still bottoms from the final purification of acrylonitrile in the production of acrylonitrile. |
| K013 | Bottom stream from the acetonitrile column in the production of acrylonitrile. |
| K014 | Bottoms from the acetonitrile purification column in the production of acrylonitrile. |
| K015 | Still bottoms from the distillation of benzyl chloride. |
| K016 | Heavy ends or distillation residues from the production of carbon tetrachloride. |
| K017 | Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin. |
| K018 | Heavy ends from fractionation in ethyl chloride production. |
| K019 | Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production. |
| K020 | Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production. |
| K021 | Aqueous spent antimony catalyst waste from fluoromethane production. |

HAZARDOUS WASTE FROM SPECIFIC SOURCES (continued)

| Industry and EPA Hazardous Waste Number | Hazardous Waste |
|---|---|
| K022 | Distillation bottom tars from the production of phenol/acetone from cumene. |
| K023 | Distillation light ends from the production of phthalic anhydride from naphthalene. |
| K024 | Distillation bottoms from the production of phthalic anhydride from naphthalene. |
| K025 | Distillation bottoms from the production of nitrobenzene by the nitration of benzene. |
| K026 | Stripping still tails from the production of methyl ethyl pyridines. |
| K027 | Centrifuge residue from toluene diisocyanate production. |
| K028 | Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane. |
| K029 | Waste from the product stream stripper in the production of 1,1,1-trichloroethane. |
| K030 | Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene. |
| Pesticides: | |
| K031 | Byproducts salts generated in the production of MSMA and cacodylic acid. |
| K032 | Wastewater treatment sludge from the production of chlordane. |
| K033 | Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane. |
| K034 | Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane. |
| K035 | Wastewater treatment sludges generated in the production of creosote. |
| K036 | Still bottoms from toluene reclamation distillation in the production of disulfoton. |

HAZARDOUS WASTE FROM SPECIFIC SOURCES (continued)

| Industry and EPA Hazardous Waste Number | Hazardous Waste |
|---|---|
| K037 | Wastewater treatment sludges from the production of disulfoton. |
| K038 | Wastewater from the washing and stripping of phorate production. |
| K039 | Filter cake from the filtration of diethylphosphorodithoric acid in the production of phorate. |
| K040 | Wastewater treatment sludge from the production of phorate. |
| K041 | Wastewater treatment sludge from the production of toxaphene. |
| K042 | Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T. |
| K043 | 2,6-Dichlorophenol waste from the production of 2,4-D (see P035). |
| Explosives: | |
| K044 | Wastewater treatment sludges from the manufacturing and processing of explosives. |
| K045 | Spent carbon from the treatment of wastewater containing explosives. |
| K046 | Wastewater treatment sludges from the manufacturing, formulation, and loading of lead-based initiating compounds. |
| K047 | Pink/red water from TNT operations. |
| Petroleum Refining: | |
| K048 | Dissolved air flotation (DAF) float from the petroleum refining industry. |
| K049 | Slop oil emulsion solids from the petroleum refining industry. |
| K050 | Heat exchanger bundle cleaning sludge from the petroleum refining industry. |

HAZARDOUS WASTE FROM SPECIFIC SOURCES (continued)

| Industry and EPA Hazardous Waste Number | Hazardous Waste |
|---|---|
| K051 | API separator sludge from the petroleum refining industry. |
| K052 | Tank bottoms (leaded) from the petroleum refining industry. |
| Leather Tanning Finishing: | |
| K053 | Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling. |
| K054 | Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling. |
| K055 | Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; and through-the-blue. |
| K056 | Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling. |
| K057 | Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling. |
| K058 | Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; and through-the-blue. |

HAZARDOUS WASTE FROM SPECIFIC SOURCES (continued)

| Industry and EPA Hazardous Waste Number | Hazardous Waste |
|---|---|
| K059 | Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair save/non-chrome tan/ retan/wet finish. |
| Iron and Steel: | |
| K060 | Ammonia still lime sludge from coking operations. |
| K061 | Emission control dust/sludge from the electric furnace production of steel. |
| K062 | Spent pickle liquor from steel finishing operations. |
| K063 | Sludge from lime treatment of spent pickle liquor from steel finishing operations. |
| Primary Copper: | |
| K064 | Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production. |
| Primary Lead: | |
| K065 | Surface impoundment solids contained and dredged from surface impoundments at primary lead smelting facilities. |
| Primary Zinc: | |
| K066 | Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production. |
| K067 | Electrolytic anode slimes/sludges from primary zinc production. |
| K068 | Cadmium plant leach residue (iron oxide) from primary zinc production. |
| Secondary Lead: | |
| K069 | Emission control dust/sludge from secondary lead smelting. |

## DISCARDED COMMERCIAL CHEMICAL PRODUCTS

| Hazardous Waste Number | Substance |
|---|---|
| | 1080 see P058<br>1081 see P057 |
| P001 | 3-(alpha-Acetonylbenzyl)-4 hydroxycoumarin and salts |
| P002 | 1-Acetyl-2-thiourea |
| P003 | Acrolein |
| P004 | Aldrin |
| P005 | Allyl alcohol |
| P006 | Aluminum phosphide (R) |
| P007 | 5-(Aminomethyl)-3-isoxazolol |
| P008 | 4-Aminopyridine |
| P009 | Ammonium picrate (R) |
| P010 | Arsenic acid |
| P011 | Arsenic pentoxide |
| P012 | Arsenic trioxide |
| P013 | Barium cyanide |
| P014 | Benzenethiol |
| P015 | Beryllium dust |
| P016 | Bis(chloromethyl) ether |
| P017 | Bromoacetone |
| P018 | Brucine |
| P019 | 2-Butanone peroxide |
| P020 | 2-sec-Butyl-4,6-dinitrophenol |
| P021 | Calcium cyanide |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (continued)

| Hazardous Waste Number | Substance |
|---|---|
| P022 | Carbon disulfide |
| P023 | Chloroacetaldehyde |
| P024 | p-Chloroaniline |
| P025 | 1-(p-Chlorobenzoyl)-5-methoxy-2-methylindole-3-acetic acid |
| P026 | 1-(o-Chlorophenyl)thiourea |
| P027 | 3-Chloropropionitrile |
| P028 | alpha-Chlorotoluene |
| P029 | Copper cyanide |
| P030 | Cyanides |
| P031 | Cyanogen |
| P032 | Cyanogen bromide |
| P033 | Cyanogen chloride |
| P034 | 2-Cyclohexyl-4,6-dinitrophenol |
| P035 | 2,4-Dichlorophenoxyacetic acid (2,4-D) |
| P036 | Dichlorophenylarsine |
| P037 | Dieldrin |
| P038 | Diethylarsine |
| P039 | O,O-Diethyl-S-(2-(ethylthio)ethyl)ester of phosphorothioic acid |
| P040 | O,O-Diethyl-O-(2-pyrazinyl)phosphorothioate |
| P041 | O,O-Diethyl phosphoric acid, O-p-nitrophenyl ester |
| P042 | 3,4-Dihydroxy-alpha-(methylamino)-methyl benzyl alcohol |
| P043 | Di-isopropylfluorophosphate |
| P044 | Dimethoate |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (continued)

| Hazardous Waste Number | Substance |
|---|---|
| P045 | 3,3-Dimethyl-1-(methylthio)-2-butanone-O-((methylamino) carbonyl) oxime |
| P046 | alpha,alpha-Dimethylphenethylamine |
| P047 | 4,6-Dinitro-o-cresol and salts |
| P048 | 2,4-Dinitrophenol |
| P049 | 2,4-Dithiobiuret |
| P050 | Endosulfan |
| P051 | Endrin |
| P052 | Ethylcyanide |
| P053 | Ethylenediamine |
| P054 | Ethyleneimine |
| P055 | Ferric cyanide |
| P056 | Fluorine |
| P057 | 2-Fluoroacetamide |
| P058 | Fluoroacetic acid, sodium salt |
| P059 | Heptachlor |
| P060 | 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo, endo-dimethanonaphthalene |
| P061 | Hexachloropropene |
| P062 | Hexaethyl tetraphosphate |
| P063 | Hydrocyanic acid |
| P064 | Isocyanic acid, methyl ester |
| P065 | Mercury fulminate |
| P066 | Methomyl |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (continued)

| Hazardous Waste Number | Substance |
|---|---|
| P067 | 2-Methylaziridine |
| P068 | Methyl hydrazine |
| P069 | 2-Methyllactonitrile |
| P070 | 2-Methyl-2-(methylthio)propionaldehyde-o-(methylcarbonyl) oxime |
| P071 | Methyl parathion |
| P072 | 1-Naphthyl-2-thiourea |
| P073 | Nickel carbonyl |
| P074 | Nickel cyanide |
| P075 | Nicotine and salts |
| P076 | Nitric oxide |
| P077 | p-Nitroaniline |
| P078 | Nitrogen dioxide |
| P079 | Nitrogen peroxide |
| P080 | Nitrogen tetroxide |
| P081 | Nitroglycerine (R) |
| P082 | N-Nitrosodimethylamine |
| P083 | N-Nitrosodiphenylamine |
| P084 | N-Nitrosomethylvinylamine |
| P085 | Octamethylpyrophosphoramide |
| P086 | Oleyl alcohol condensed with 2 moles ethylene oxide |
| P087 | Osmium tetroxide |
| P088 | 7-Oxabicyclo(2.2.1)heptane-2,3-dicarboxylic acid |
| P089 | Parathion |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (continued)

| Hazardous Waste Number | Substance |
|---|---|
| P090 | Pentachlorophenol |
| P091 | Phenyl dichloroarsine |
| P092 | Phenylmercury acetate |
| P093 | N-Phenylthiourea |
| P094 | Phorate |
| P095 | Phosgene |
| P096 | Phosphine |
| P097 | Phosphorothioic acid, O,O-dimethyl ester, O-ester with N,N-dimethyl benzene sulfonamide |
| P098 | Potassium cyanide |
| P099 | Potassium silver cyanide |
| P100 | 1,2-Propanediol |
| P101 | Propionitrile |
| P102 | 2-Propyn-1-ol |
| P103 | Selenourea |
| P104 | Silver cyanide |
| P105 | Sodium azide |
| P106 | Sodium cyanide |
| P107 | Strontium sulfide |
| P108 | Strychnine and salts |
| P109 | Tetraethyldithiopyrophosphate |
| P110 | Tetraethyl lead |
| P111 | Tetraethylpyrophosphate |
| P112 | Tetranitromethane |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (continued)

| Hazardous Waste Number | Substance |
|---|---|
| P113 | Thallic oxide |
| P114 | Thallium selenite |
| P115 | Thallium (I) sulfate |
| P116 | Thiosemicarbazide |
| P117 | Thiuram |
| P118 | Trichloromethanethiol |
| P119 | Vanadic acid, ammonium salt |
| P120 | Vanadium pentoxide |
| P121 | Zinc cyanide |
| P122 | Zinc phosphide (R,T) |
| U001 | Acetaldehyde |
| U002 | Acetone (I) |
| U003 | Acetonitrile (I,T) |
| U004 | Acetophenone |
| U005 | 2-Acetylaminofluorene |
| U006 | Acetyl chloride (C,T) |
| U007 | Acrylamide |
| U008 | Acrylic acid (I) |
| U009 | Acrylonitrile |
| U010 | 6-Amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)8-methoxy-5-methylcarbamate azirino (2',3':3,4) pyrrolo(1,2-a) indole-4,7-dione (ester) |
| U011 | Amitrole |
| U012 | Aniline (I) |
| U013 | Asbestos |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (continued)

| Hazardous Waste Number | Substance |
|---|---|
| U014 | Auramine |
| U015 | Azaserine |
| U016 | Benz(c)acridine |
| U017 | Benzal chloride |
| U018 | Benz(a)anthracene |
| U019 | Benzene |
| U020 | Benzenesulfonyl chloride (C,R) |
| U021 | Benzidine |
| U022 | Benzo(a)pyrene |
| U023 | Benzotrichloride (C,R,T) |
| U024 | Bis(2-chloroethoxy)methane |
| U025 | Bis(2-chloroethyl) ether |
| U026 | N,N-Bis(2-chloroethyl)-2-naphthylamine |
| U027 | Bis(2-chloroisopropyl) ether |
| U028 | Bis(2-ethylhexyl) phthalate |
| U029 | Bromomethane |
| U030 | 4-Bromophenyl phenyl ether |
| U031 | n-Butyl alcohol (I) |
| U032 | Calcium chromate |
| U033 | Carbonyl fluoride |
| U034 | Chloral |
| U035 | Chlorambucil |
| U036 | Chlordane |
| U037 | Chlorobenzene |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (continued)

| Hazardous Waste Number | Substance |
|---|---|
| U038 | Chlorobenzilate |
| U039 | p-Chloro-m-cresol |
| U040 | Chlorodibromomethane |
| U041 | 1-Chloro-2,3-epoxypropane |
| U042 | Chloroethyl vinyl ether |
| U043 | Chloroethene |
| U044 | Chloroform (I,T) |
| U045 | Chloromethane (I,T) |
| U046 | Chloromethyl methyl ether |
| U047 | 2-Chloronaphthalene |
| U048 | 2-Chlorophenol |
| U049 | 4-Chloro-o-toluidine hydrochloride |
| U050 | Chrysene |
| U051 | Cresote |
| U052 | Cresols |
| U053 | Crotonaldehyde |
| U054 | Cresylic acid |
| U055 | Cumene |
| U056 | Cyclohexane (I) |
| U057 | Cyclohexanone (I) |
| U058 | Cyclophosphamide |
| U059 | Daunomycin |
| U060 | DDD |
| U061 | DDT |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (continued)

| Hazardous Waste Number | Substance |
|---|---|
| U062 | Diallate |
| U063 | Dibenz(a,h)anthracene |
| U064 | Dibenzo(a,i)pyrene |
| U065 | Dibromochloromethane |
| U066 | 1,2-Dibromo-3-chloropropane |
| U067 | 1,2-Dibromoethane |
| U068 | Dibromomethane |
| U069 | Di-n-butyl phthalate |
| U070 | 1,2-Dichlorobenzene |
| U071 | 1,3-Dichlorobenzene |
| U072 | 1,4-Dichlorobenzene |
| U073 | 3,3'-Dichlorobenzidine |
| U074 | 1,4-Dichloro-2-butene |
| U075 | Dichlorodifluoromethane |
| U076 | 1,1-Dichloroethane |
| U077 | 1,2-Dichloroethane |
| U078 | 1,1-Dichloroethylene |
| U079 | 1,2-trans-dichloroethylene |
| U080 | Dichloromethane |
| U081 | 2,4-Dichlorophenol |
| U082 | 2,6-Dichlorophenol |
| U083 | 1,2-Dichloropropane |
| U084 | 1,3-Dichloropropene |
| U085 | Diepoxybutane (I,T) |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (continued)

| Hazardous Waste Number | Substance |
|---|---|
| U086 | 1,2-Diethylhydrazine |
| U087 | 0,0-Diethyl-S-methyl ester of phosphorodithioic acid |
| U088 | Diethyl phthalate |
| U089 | Diethylstilbestrol |
| U090 | Dihydrosafrole |
| U091 | 3,3'-Dimethoxybenzidine |
| U092 | Dimethylamine (I) |
| U093 | p-Dimethylaminoazobenzene |
| U094 | 7,12-Dimethylbenz(a)anthracene |
| U095 | 3,3'-Dimethylbenzidine |
| U096 | alpha,alpha-Dimethylbenzylhydroperoxide (R) |
| U097 | Dimethylcarbamoyl chloride |
| U098 | 1,1-Dimethylhydrazine |
| U099 | 1,2-Dimethylhydrazine |
| U100 | Dimethylnitrosoamine |
| U101 | 2,4-Dimethylphenol |
| U102 | Dimethyl phthalate |
| U103 | Dimethyl sulfate |
| U104 | 2,4-Dinitrophenol |
| U105 | 2,4-Dinitrotoluene |
| U106 | 2,6-Dinitrotoluene |
| U107 | Di-n-octyl phthalate |
| U108 | 1,4-Dioxane |
| U109 | 1,2-Diphenylhydrazine |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (continued)

| Hazardous Waste Number | Substance |
|---|---|
| U110 | Dipropylamine (I) |
| U111 | Di-n-propylnitrosamine |
| U112 | Ethyl acetate (I) |
| U113 | Ethyl acrylate (I) |
| U114 | Ethylenebisdithiocarbamate |
| U115 | Ethylene oxide (I,T) |
| U116 | Ethylene thiourea |
| U117 | Ethyl ether (I,T) |
| U118 | Ethylmethacrylate |
| U119 | Ethyl methanesulfonate |
| U120 | Fluoranthene |
| U121 | Fluorotrichloromethane |
| U122 | Formaldehyde |
| U123 | Formic acid (C,T) |
| U124 | Furan (I) |
| U125 | Furfural (I) |
| U126 | Glycidylaldehyde |
| U127 | Hexachlorobenzene |
| U128 | Hexachlorobutadiene |
| U129 | Hexachlorocyclohexane |
| U130 | Hexachlorocyclopentadiene |
| U131 | Hexachloroethane |
| U132 | Hexachlorophene |
| U133 | Hydrazine (R,T) |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (continued)

| Hazardous Waste Number | Substance |
|---|---|
| U134 | Hydrofluoric acid (C,T) |
| U135 | Hydrogen sulfide |
| U136 | Hydroxydimethyl arsine oxide |
| U137 | Indeno(1,2,3-cd)pyrene |
| U138 | Iodomethane |
| U139 | Iron dextran |
| U140 | Isobutyl alcohol |
| U141 | Isosafrole |
| U142 | Kepone |
| U143 | Lasiocarpine |
| U144 | Lead acetate |
| U145 | Lead phosphate |
| U146 | Lead subacetate |
| U147 | Maleic anhydride |
| U148 | Maleic hydrazide |
| U149 | Malononitrile |
| U150 | Melphalan |
| U151 | Mercury |
| U152 | Methacrylonitrile |
| U153 | Methanethiol |
| U154 | Methanol |
| U155 | Methapyrilene |
| U156 | Methyl chlorocarbonate |
| U157 | 3-Methylcholanthrene |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (continued)

| Hazardous Waste Number | Substance |
|---|---|
| U158 | 4,4'-Methylene-bis-(2-chloroaniline) |
| U159 | Methyl ethyl ketone (MEK) (I,T) |
| U160 | Methyl ethyl ketone peroxide (R) |
| U161 | Methyl isobutyl ketone |
| U162 | Methyl methacrylate (R,T) |
| U163 | N-Methyl-N'-nitro-N-nitrosoguanidine |
| U164 | Methylthiouracil |
| U165 | Naphthalene |
| U166 | 1,4-Naphthoquinone |
| U167 | 1-Naphthylamine |
| U168 | 2-Naphthylamine |
| U169 | Nitrobenzene (I,T) |
| U170 | 4-Nitrophenol |
| U171 | 2-Nitropropane (I) |
| U172 | N-Nitrosodi-n-butylamine |
| U173 | N-Nitrosodiethanolamine |
| U174 | N-Nitrosodiethylamine |
| U175 | N-Nitrosodi-n-propylamine |
| U176 | N-Nitroso-n-ethylurea |
| U177 | N-Nitroso-n-methylurea |
| U178 | N-Nitroso-n-methylurethane |
| U179 | N-Nitrosopiperidine |
| U180 | N-Nitrosopyrrolidine |
| U181 | 5-Nitro-o-toluidine |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (continued)

| Hazardous Waste Number | Substance |
|---|---|
| U182 | Paraldehyde |
| U183 | Pentachlorobenzene |
| U184 | Pentachloroethane |
| U185 | Pentachloronitrobenzene |
| U186 | 1,3-Pentadiene (I) |
| U187 | Phenacetin |
| U188 | Phenol |
| U189 | Phosphorous sulfide (R) |
| U190 | Phthalic anhydride |
| U191 | 2-Picoline |
| U192 | Pronamide |
| U193 | 1,3-Propane sultone |
| U194 | n-Propylamine (I) |
| U196 | Pyridine |
| U197 | Quinones |
| U200 | Reserpine |
| U201 | Resorcinol |
| U202 | Saccharin |
| U203 | Safrole |
| U204 | Selenious acid |
| U205 | Selenium sulfide (R,T) |
| U206 | Streptozotocin |
| U207 | 1,2,4,5-Tetrachlorobenzene |
| U208 | 1,1,1,2-Tetrachloroethane |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (continued)

| Hazardous Waste Number | Substance |
|---|---|
| U209 | 1,1,2,2-Tetrachloroethane |
| U210 | Tetrachloroethene |
| U211 | Tetrachloromethane |
| U212 | 2,3,4,6-Tetrachlorophenol |
| U213 | Tetrahydrofuran (I) |
| U214 | Thallium (I) acetate |
| U215 | Thallium (I) carbonate |
| U216 | Thallium (I) chloride |
| U217 | Thallium (I) nitrate |
| U218 | Thioacetamide |
| U219 | Thiourea |
| U220 | Toluene |
| U221 | Toluenediamine |
| U222 | o-Toluidine hydrochloride |
| U223 | Toluene diisocyanate |
| U224 | Toxaphene |
| U225 | Tribromomethane |
| U226 | 1,1,1-Trichloroethane |
| U227 | 1,1,2-Trichloroethane |
| U228 | Trichloroethene |
| U229 | Trichlorofluoromethane |
| U230 | 2,4,5-Trichlorophenol |
| U231 | 2,4,6-Trichlorophenol |

DISCARDED COMMERCIAL CHEMICAL PRODUCTS (concluded)

| Hazardous Waste Number | Substance |
|---|---|
| U232 | 2,4,5-Trichlorophenoxyacetic acid |
| U233 | 2,4,5-Trichlorophenoxypropionic acid alpha |
| U234 | Trinitrobenzene (R,T) |
| U235 | Tris(2,3-dibromopropyl) phosphate |
| U236 | Trypan blue |
| U237 | Uracil mustard |
| U238 | Urethane |
| U239 | Xylene |

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4. Title and Subtitle: INVENTORY OF TOXIC AND HAZARDOUS WASTE DISPOSAL AND DISCHARGE SITES IN THE NEW ORLEANS AND HOUSTON AREAS

5. Report Date: September 1982

6.

7. Author(s): Dames and Moore

8. Performing Organization Rept. No.

9. Performing Organization Name and Address:
Dames and Moore
Suite 700
7101 Wisconsin Avenue
Bethesda, MD 20814

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1010 Gause Blvd
Slidell, LA 70458

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14.

15. Supplementary Notes

16. Abstract (Limit: 200 words)

This user's guide to a mapped, ecological inventory of toxic and hazardous waste disposal and point source discharge sites in the New Orleans, LA and Houston, TX areas provides industrial planners and managers with information necessary to plan and evaluate siting of energy-related projects in relation to the fish and wildlife resources at proposed sites and the susceptibility of those resources to new or added stress.

Use of the toxic waste disposal and point source map overlays, in conjunction with the corresponding ecological resource maps, provides the planner with a better understanding of the ecological impacts and environmental sensitivity of siting new energy facilities in coastal areas. The information would enable planners to avoid areas where an increase in disposal or discharge activities potentially could result in the increased susceptibility of biological resources to further environmental stress.

The inventory was done for the New Orleans and Houston areas to demonstrate the feasibility of showing these sites on overlays keyed to their respective ecological resource maps. These two areas were selected for study since they are characterized by a diversity of ecological resources and by heavy concentrations of industry, particularly petroleum refining, petrochemical and chemical manufacturing and related utilities.

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c. COSATI Field/Group

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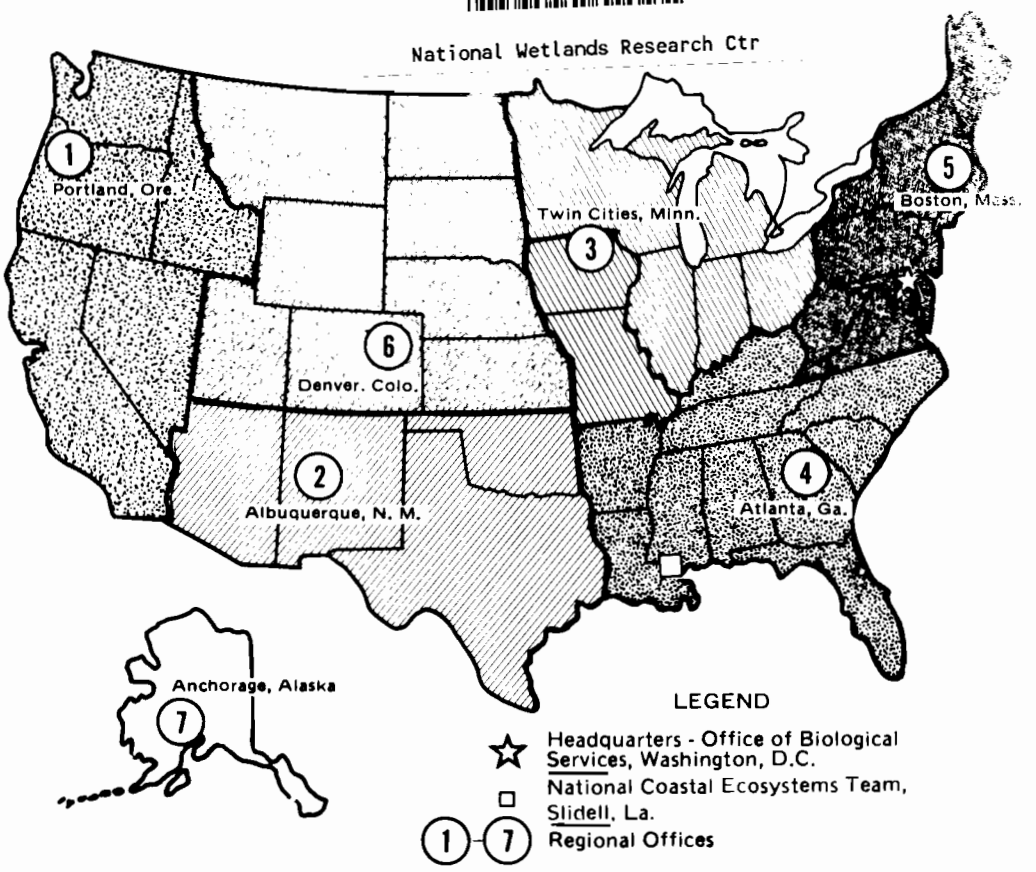


## U.S. FISH AND WILDLIFE SERVICE
## REGIONAL OFFICES

**REGION 1**
Regional Director
U.S. Fish and Wildlife Service
Lloyd Five Hundred Building, Suite 1692
500 N.E. Multnomah Street
Portland, Oregon 97232

**REGION 2**
Regional Director
U.S. Fish and Wildlife Service
P.O. Box 1306
Albuquerque, New Mexico 87103

**REGION 3**
Regional Director
U.S. Fish and Wildlife Service
Federal Building, Fort Snelling
Twin Cities, Minnesota 55111

**REGION 4**
Regional Director
U.S. Fish and Wildlife Service
Richard B. Russell Building
75 Spring Street, S.W.
Atlanta, Georgia 30303

**REGION 5**
Regional Director
U.S. Fish and Wildlife Service
One Gateway Center
Newton Corner, Massachusetts 02158

**REGION 6**
Regional Director
U.S. Fish and Wildlife Service
P.O. Box 25486
Denver Federal Center
Denver, Colorado 80225

**REGION 7**
Regional Director
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, Alaska 99503


# DEPARTMENT OF THE INTERIOR

## U.S. FISH AND WILDLIFE SERVICE


As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.