

# DISCHARGES OF HAZARDOUS SUBSTANCES

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## CHAPTER 1E

### DISCHARGES OF PETROLEUM AND OTHER HAZARDOUS SUBSTANCES

#### Authority

N.J.S.A. 58:10-23.11, 58:10-23.11-1, 58:10-46 to 50 and  
13:1K, specifically 13:1K-18, 58:10-23.11d6, d14  
and f6 and 58:10-47.

#### Source and Effective Date

R.1991 d.465, effective September 3, 1991  
(operative September 11, 1991).  
See: 23 N.J.R. 1335(a), 23 N.J.R. 2656(a).

#### Executive Order No. 66(1978) Expiration Date

Chapter 1E, Discharges of Petroleum and Other Hazardous Sub-  
stances, expires on September 3, 1996.

#### Chapter Historical Note

Chapter 1E, Discharges of Petroleum and Other Hazardous Sub-  
stances, became effective pursuant to the authority of N.J.S.A.  
58:10-23.11 et seq., specifically 58:10-28.11t and N.J.S.A. 13:1D-1 et  
seq., specifically 13:1D-9, March 31, 1977, as R.1977 d.115. See: 9  
N.J.R. 68(c), 9 N.J.R. 217(c). The provisions of the chapter were  
readopted as R.1985 d.377, effective July 15, 1985. See: 17 N.J.R.  
865(a), 17 N.J.R. 1759(a). Pursuant to Executive Order No. 66(1978),  
Chapter 1E expired on July 15, 1990. The chapter was adopted as new  
rules, effective August 6, 1990. See: 22 N.J.R. 1657(a), 22 N.J.R.  
2284(a). Public Notice: Notice to adopt rules concerning petroleum  
and other hazardous substances. See: 23 N.J.R. 2507(a). Subchapter  
5, Hazardous Substance Discharge: Reports and Notices, was recodi-  
fied from N.J.A.C. 7:1-7 by R.1990 d.457, effective September 17, 1990.  
See: 22 N.J.R. 1457(a), 22 N.J.R. 2965(a). Chapter 1E was repealed  
and adopted as new rules by R.1991 d.465, effective September 3, 1991  
(operative September 11, 1991). See: Source and Effective Date.

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## SUBCHAPTER 1. GENERAL PROVISIONS

### 7:1E-1.1 Scope

(a) This chapter covers the discharge of hazardous substances as defined in this chapter. These rules set forth guidelines and procedures to be followed by all persons in the event of a discharge of a hazardous substance. They also set forth certain registration, reporting, design and maintenance requirements for owners and operators of major facilities and transmission pipelines which handle hazardous substances.

(b) This subchapter prescribes the provisions that are generally applicable. The following shall govern how certain terms are defined for use in this chapter, which persons are subject to this chapter, and the Department's rights of access for determining compliance with this chapter and the Act.

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).  
In (a) deleted exception for discharges pursuant to permit.

### Case Notes

Terms defined in Spill Compensation and Control Act regulations were not void for vagueness. In re Adoption of N.J.A.C. 7:1E, 255 N.J.Super. 469, 605 A.2d 733 (A.D.1992).

Spill Compensation and Control Act regulations which required reporting of discharges were constitutional. In re Adoption of N.J.A.C. 7:1E, 255 N.J.Super. 469, 605 A.2d 733 (A.D.1992).

Spill Compensation and Control Act regulations which did not specify discharge quantity were not unconstitutional on their face. In re Adoption of N.J.A.C. 7:1E, 255 N.J.Super. 469, 605 A.2d 733 (A.D.1992).

### 7:1E-1.2 Construction

(a) These rules, being necessary to promote the public health and welfare, and to protect the environment, shall be liberally construed so as to permit the Department to discharge its statutory functions under the Act.

(b) The Commissioner may amend or repeal this chapter in conformance with the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq., and N.J.A.C. 1:30.

### 7:1E-1.3 Severability

If any section, subsection, provision, clause or portion of this chapter or the application thereof to any person or circumstance is adjudged invalid or unconstitutional by a court of competent jurisdiction, the remainder of this chapter and the application thereof to other persons or circumstances shall not be affected thereby, and shall remain in full force and effect.

### 7:1E-1.4 Relationship to Federal and State Law

These rules are not intended to and do not relieve any person of the duty to comply with all other applicable laws, ordinances, rules, regulations or orders of governmental authorities governing activities regulated hereunder, including rules or regulations of the New Jersey Department of Environmental Protection, New Jersey Department of the Treasury, and other appropriate State, Federal and local agencies.

### Case Notes

The Environmental Cleanup Responsibility Act (ECRA) is not preempted by the provision of the Bankruptcy Code; debtor permitted to abandon property as burdensome and cease operations on other property to prevent continuing losses, without complying with ECRA. In the Matter of Borne Chemical Co., Inc., 54 B.R. 126 (Bkrty.Ct.N.J. 1984).

### 7:1E-1.5 State non-liability

(a) New Jersey State government is not liable for any damages arising from its actions or omissions relating to any plan, registration or map required pursuant to this chapter. No approval by the Department of any plan or of any cleanup and removal activities shall be a defense against liability for the discharge, nor shall it shift liability for the discharge to the Department.

(b) In the event of a discharge, any person responsible for the discharge shall be held liable to the extent determined by the Act.

Amended by R.1996 d.252, effective June 3, 1996.

See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

In (b) substituted "any person" for "the person".

#### 7:1E-1.6 Definitions

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

"Aboveground storage tank" means any storage tank not defined as an underground storage tank.

"Act" means the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq., as amended.

"Affiliate" means, with respect to any person, another person:

1. Who has a controlling interest in such person;
2. In whom such person has a controlling interest; or
3. Who is under common control with such person.

"Agent(s) or officer(s) of the municipality" means a duly authorized representative of the municipality or local board of health, including, but not limited to, a member of the police, fire, or public works department, public health officer, township engineer, zoning officer, director of emergency management, or environmental compliance officer.

"API" means the American Petroleum Institute.

"API 574" means the API's Recommended Practice 574, entitled "Inspection of Piping, Tubing, Valves and Fittings."

"API 653" means the API's Standard 653, entitled "Tank Inspection, Repair, Alteration and Reconstruction."

"ASME" means the American Society of Mechanical Engineers.

"ASME Section V" means ASME Boiler and Pressure Vessel Code Section V, entitled "Nondestructive Examination."

"ASME Section VIII" means ASME Boiler and Pressure Vessel Code Section VIII, entitled "Pressure Vessels."

"ASME Section X" means ASME Boiler and Pressure Vessel Code Section X, entitled "Fiberglass-Reinforced Plastic Pressure Vessels."

"Assertedly confidential information" means information which is the subject of a confidentiality claim, for which a confidentiality determination has not been made.

"ASTM" means the American Society of Testing and Materials.

"Broker" means any person who arranges for the transportation, treatment, storage or disposal of hazardous substances on behalf of another person.

"Bulk storage" means the holding of large quantities of substances.

"CFR" means the Code of Federal Regulations.

"Claimant" means any person who submits a confidentiality claim under this chapter.

"Class confidentiality determination" means a confidentiality determination made by the Department under N.J.A.C. 7:1E-8.9, for a class of information.

"Cleanup and removal activities" means actions to clean up or remove or attempt to clean up or remove a discharge of a hazardous substance or the source thereof, or to chemically neutralize the discharge, or measures to prevent or mitigate any damages to the public health, safety or welfare, including, but not limited to, public and private property, shorelines, beaches, surface waters, water columns and bottom sediments, soils and other affected property, including wildlife and other natural resources.

"Cleanup and removal costs" means all costs associated with cleanup and removal activities incurred by the State, its political subdivisions or their agents or any person with written approval of the Department.

"Commissioner" means the Commissioner of the Department of Environmental Protection or the person designated to act on his or her behalf pursuant to an administrative order.

"Confidential copy" means a record (or copy thereof) submitted to or obtained by the Department, containing information which the claimant asserts is confidential information.

"Confidential information" means information which the Department determines to have satisfied all of the following substantive criteria:

1. The claimant has asserted a confidentiality claim with respect to the information, in compliance with the procedures required by N.J.A.C. 7:1E-7, and such confidentiality claim has not expired by its terms, been waived or withdrawn;
2. The claimant has shown that disclosure of the information would be likely to cause substantial damage either to the claimant's competitive position or to national security;

3. The claimant has taken reasonable measures to protect the confidentiality of the information, and intends to continue to take such measures;

4. The information is not, and has not been, available or otherwise disclosed to other persons either by the claimant (except in a manner which protects the confidentiality of the information) or without the consent of the claimant (other than by subpoena or by discovery based on a showing of special need in a judicial proceeding, arbitration, or other proceeding in which the claimant was required to disclose the information to such other persons, as long as the information has not become available to persons not involved in the proceeding);

5. The information is not contained in materials which are routinely available to the general public, including without limitation initial and final orders in contested case adjudications, press releases, copies of speeches, pamphlets and educational materials;

6. The claimant has not waived the confidentiality claim for the information; and

7. No law, regulation (including, without limitation, N.J.A.C. 7:1E-8.10 or any other regulations of the Department), or order by a court or other tribunal of competent jurisdiction specifically requires disclosure of the information or provides that the information is not confidential information.

"Confidentiality claim" or "claim" means, with respect to information that a person is required either to submit to the Department or to allow the Department to obtain, a written request by such person that the Department treat such information as confidential information.

"Confidentiality determination" means a determination by the Department that assertedly confidential information is or is not confidential information.

"Containment" or "containment activities" means actions to limit or prevent the spread of a leak or discharge.

"Contract" means an agreement between the Department and a contractor, for which the Department has determined that it is necessary for the contractor to have access to confidential information to enable the contractor to perform the duties required by such agreement.

"Contractor" means a person, other than an employee of the owner or operator or the Department, who has entered into an agreement with the owner or operator or the Department to perform services or to provide goods.

"Controlling interest" means any of the following:

1. The direct or indirect beneficial ownership, by the person asserted to have a controlling interest and any of such person's affiliates, of at least 50 percent of the voting stock or other equity interest in a person;

2. The holding of any direct or indirect beneficial interest, by the person asserted to have a controlling interest in any of such person's affiliates, in at least 50 percent of the income or profits of a person; or

3. The existence of any other relationship between the person asserted to have a controlling interest and the person controlled, which relationship in fact constitutes control over the affairs of the person controlled.

"DCR plan" means the discharge cleanup and removal plan required under N.J.A.C. 7:1E-4.

"Department" means the New Jersey Department of Environmental Protection.

"Diligent inquiry" means:

1. Conducting a diligent search of all documents which are reasonably likely to contain information related to a possible discharge, which documents are in such person's possession, custody or control, or in the possession, custody or control of any other person from whom the person conducting the search has legal right to obtain such documents; and

2. Making reasonable inquiries of current and former employees and agents whose duties include or included any responsibility for hazardous substances, and any other current and former employees or agents who may have knowledge or documents relevant to a discharge.

"Discharge" means any intentional or unintentional action or omission, unless pursuant to and in compliance with the conditions of a valid and effective Federal or State permit, resulting in the releasing, spilling, pumping, pouring, emitting, emptying or dumping of a hazardous substance into the waters or onto the lands of the State, or into waters outside the jurisdiction of the State when damage may result to the lands, waters or natural resources within the jurisdiction of the State. This term does not include "leak."

"Discharge cleanup organization" means an organization or association that engages in or intends to engage in cleanup and removal activities.

"Discharge monitoring device" means any equipment or instrumentation that is used to detect discharges at the facility.

"Double-walled piping" means piping which consists of one pipe fixed inside another, with an annular space between.

"DPCC plan" means the discharge prevention, containment and countermeasure plan required under N.J.A.C. 7:1E-4.



"Environmentally sensitive areas" means, for the purposes of planning for discharge control and mitigation, geographic areas which contain one or more significant natural or ecological resources as set forth in N.J.A.C. 7:1E-1.8.

"EPA" means the U.S. Environmental Protection Agency.

"Facility" means any place or equipment that is used to refine, produce, store, hold, handle, transfer, process or transport hazardous substances.

"Final public copy" means a copy of a record submitted to or obtained by the Department, identical to the confidential copy except that any confidential information has been blacked out; provided, however, that if the record is not in a form in which confidential information can be concealed by blacking out, the "final public copy" shall be a copy of such record from which such confidential information has been deleted, containing notations stating where deletions have been made.

"Guarantor" means a person who:

1. Possesses a controlling interest in the owner or operator;
2. Possesses a controlling interest in a person who possesses a controlling interest in the owner or operator;
3. Is controlled by a common parent firm that possesses a controlling interest in the owner or operator; or
4. Is engaged in a substantial business relationship with the owner or operator and issues the guarantee as an act incident to that business relationship.

"Handling" means treating, dealing with, or managing.

"Hazardous substances" means petroleum, petroleum products, pesticides, solvents and other substances as set forth in N.J.A.C. 7:1E-1.7.

"Impermeable" means utilizing a layer of natural or man-made material of sufficient thickness, density and composition so as to have a maximum permeability for the hazardous substance being contained of  $10^{-7}$  centimeters per second at the maximum anticipated hydrostatic pressure.

"Incompatible materials" means those substances which, if mixed, will create hazards greater than those posed by the individual substances alone, such as fire, explosion, or generation of toxic fumes.

"Integrity testing" means a method of testing structures where either hydrostatic testing using water or other liquid or pneumatic testing is done in combination with a system of nondestructive testing which includes shell thickness testing. The nondestructive testing procedures shall be adequate to detect cracks, leaks, and corrosion, erosion or other wall thinning to less than a predetermined minimum thickness to ensure sufficient structural strength. Nondestructive

integrity test techniques include magnetic particle tests, acoustic emission tests, electromagnetic particle or eddy current tests, radiography and radiation tests, liquid penetrant tests, or ultrasonic tests.

"Leak" or "leakage" means any escape of a hazardous substance from the ordinary containers employed in the normal course of storage, transfer, processing or use into a secondary containment or diversion system or onto a surface from which it is cleaned up and removed prior to its escape into the waters or onto the lands of the State.

"Liquid" means having a viscosity between 0.2 centipoise and 3000 centipoise inclusive at one atmosphere (760.0 millimeters of mercury) pressure and temperatures between -20 and 120 degrees Fahrenheit (-29 and 49 degrees centigrade).

"Major facility" means all facilities, located on one or more continuous or adjacent properties owned and/or operated by the same person, having total aggregate, combined storage capacity of:

1. 20,000 gallons or more for hazardous substances other than petroleum or petroleum products;
2. 200,000 gallons or more for hazardous substances of all kinds; or
3. An appropriate equivalent measure as set by the Director of the Division of Taxation in the Department of the Treasury for hazardous substances which are not commonly measured by volume;
4. A vessel, except a vessel used solely for activities directly related to recovering, containing, cleaning up or removing discharges of petroleum in the surface waters of the State, including training, research and other activities directly related to discharge response, shall be considered a major facility only when hazardous substances are transferred between vessels. A "transmission pipeline" is not a major facility.

"Major leak" means an accident required to be reported pursuant to 49 CFR 195.50.

"Major maintenance" means maintenance required to correct any condition which is of such a nature that it presents an immediate hazard to persons or property.

"Major repair" means repairs necessary because of a major leak or major maintenance.

"Natural resources" means all land, fish, shellfish, wildlife, biota, air, waters and other such resources owned, managed, held in trust, or otherwise controlled by the State.

"NJPDES permit" means a permit or permit-by-rule issued by the Department pursuant to N.J.A.C. 7:14A.

"Nonmiscible lighter-than-water" means having a density less than water and not mixing with water to an appreciable degree.

"NPDES permit" means a permit or permit-by-rule issued by EPA pursuant to 40 CFR 122.

"Owner or operator" means any person who, with respect to:

1. A vessel, owns, operates or charters by demise such vessel;
2. Any facility, owns such facility, or operates it by lease, contract or other form of agreement; and
3. Abandoned or derelict facilities, owned or operated such facility immediately prior to such abandonment, or the owner at the time of the discharge.

"Paved or surfaced" means to cover with concrete, tile, stones or the like, to create a level, stable, impermeable surface.

"Person" means public or private corporations, companies, associations, societies, firms, partnerships, joint stock companies, as well as individuals, and when used to designate the owner of property which may be subject to this chapter, includes this State, the United States, any other state of the United States, and any foreign country or government, and any political subdivisions or agents, lawfully owning or possessing property in this State.

"Person responsible for a discharge" means:

1. Any person whose act or omission results or has resulted in a discharge;
2. Each owner or operator of any facility, vehicle or vessel from which a discharge has occurred;
3. Any person who owns or controls any hazardous substance which is discharged;
4. Any person who has directly or indirectly caused a discharge;
5. Any person who has allowed a discharge to occur; or
6. Any person who brokers, generates or transports the hazardous substance discharged.

"Petroleum" or "petroleum products" means any bituminous liquid that is essentially a complex mixture of hydrocarbons of different types with small amounts of other substances, such as compounds of oxygen, sulfur or nitrogen, or metallic compounds, or any of the useful liquid products obtained from such a liquid by various refining processes, such as fractional distillation, cracking, catalytic reforming, alkylation and polymerization. This term shall include, but not be limited to, gasoline, kerosene, fuel oil, oil sludge, oil refuse, oil mixed with other wastes, crude oils, and hazardous substances listed in Appendix A which are to be used in the refining or blending of crude petroleum or petroleum stock in this State.

"Preliminary public copy" means a copy of a record held by the Department, identical to the confidential copy except that any assertedly confidential information has been blacked out; provided, however, that if the record is not in a form in which confidential information can be concealed by blacking out, the "preliminary public copy" shall be a copy of such record from which such confidential information has been deleted, containing notations stating where deletions have been made.

"Process area" or "production facility" means an area employed in production in which an action, operation or treatment embracing chemical, industrial, manufacturing or processing factors, methods, or forms is carried out utilizing hazardous substances. These factors, methods or forms include, but are not limited to, batch or continuous chemical reactions, distillation, blending and mixing operations, refining and re-refining processes, and separation processes.

"Radionuclide" means any substance listed in 40 CFR 302.4, Appendix B.

"Record" means any document, writing, photograph, sound or magnetic recording, drawing, or other similar thing by which information has been preserved and from which the information can be retrieved or copied.

"Regional Administrator" means the Regional Administrator of EPA for the Federal region which includes the State of New Jersey.

"Regulated portion" means the area, portion, or equipment in a major facility or transmission pipeline in which hazardous substances are routinely refined, produced, stored, held, handled, used, processed, or transferred.

"Reservoir" means a receptacle or chamber which can be used for storing a fluid.

"Requester" means a person who has made a request to the Department to inspect or copy records which the Department possesses or controls.

"Response coordinator" means the individual at the major facility who is responsible for the management of the DPCC and DCR plans at the facility and who shall possess sufficient corporate authority and technical background to resolve issues relating to the execution of the DPCC and DCR plans based on information provided by manufacturing, engineering, maintenance, safety and environmental representatives.

"Secondary containment or diversion system" means any structures, devices or combinations thereof supplementary to the ordinary containers employed in the normal course of storage, transfer, processing or use, designed and operated to prevent leaks of hazardous substances from becoming discharges.

"Sewage" means domestic sewage, including the contents and effluents of septic tanks, public sewer systems and public sewage treatment plants.

"Sewage sludge" means the dried or semi-liquid residue of a sewage treatment process.

"Small business" means any business which is resident in New Jersey, independently owned and operated, not dominant in its field, and employs fewer than 100 full time employees.

"SPCC plan" means a Federal Spill Prevention Control and Countermeasure plan developed and approved pursuant to 40 CFR 112.

"Standard operating procedure" or "SOP" means the document setting forth the operating procedures covering all details of any operation involving a hazardous substance which is stored, processed, transferred or used at the facility.

"State of the art technology" means up-to-date technology reflected in equipment or procedures that, when applied at a major facility, will result in a significant reduction in the probability of a discharge. The technology represents an advancement in reduction of leaks or discharges and shall have been demonstrated at a similar facility to be reliable in commercial operation or in a pilot operation on a scale large enough to be translated into commercial operation. The technology shall be in the public domain at reasonable cost commensurate with the reduction in probability of leaks or discharges achieved, or otherwise available at reasonable cost commensurate with the reduction in probability of leaks or discharges achieved.

"Static head product testing" means testing which involves the filling of a tank, not under pressure, to determine if there are any leaks over a definite period of time.

"Storage capacity" means that capacity which is dedicated to, used for, or intended to be used for storage of hazardous substances of all kinds. This term shall include, but not be limited to, above and underground storage tanks, drums, reservoirs, containers, bins, and the intended or actual use of open land or unenclosed space. For a storage tank, the total volumetric design capacity of the tank shall be the storage capacity. This term shall not include the capacity of:

1. A heating oil tank servicing only the individual private residence at which it is located; or
2. Any underground storage tank at the facility used solely to store heating oil for on-site consumption.

"Storage tank" means any tank or reservoir which is a container for hazardous substance(s) and which is primarily used for bulk storage.

"Substantial business relationship" means the extent of a business relationship necessary under applicable State law to insure that a guarantee contract issued incident to that relationship is valid and enforceable.

"Substantial damage" means damage which is material and of real worth, value or effect. This term does not include damage which is speculative, contingent, or nominal.

"Substantial modification" means any change in facility design, construction, operation or maintenance that will materially affect the facility's potential for discharges of hazardous substances. This term may include, but is not limited to, change in service of a storage tank, discontinuation of or start-up of a production facility, change in use of transfer areas or substances transferred, and change in hours of operation.

"Substantial reconstruction" means any restoration, refurbishment, renovation or relocation of existing equipment which incurs costs equal to 50 percent or more of the replacement value of the equipment, or which impairs the physical integrity of the equipment or its monitoring systems.

"Substantiation" means information which a claimant submits to the Department in support of a confidentiality claim pursuant to N.J.A.C. 7:1E-8.3.

"Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets do not include intangibles such as goodwill and rights to patents or royalties. For purposes of this definition, "assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity as a result of past transactions.

"Transfer" means unloading or offloading between major facilities and vessels, or vessels and major facilities, and from vessel to vessel or major facility to major facility except for fueling or refueling operations, and except that with regard to the movement of hazardous substances other than petroleum, it shall also include any unloading of or offloading from a major facility.

"Transfer capacity" means the maximum quantity of hazardous substances which can be transferred into or out of a facility in a 24-hour period.

"Transmission pipeline" means new and existing pipe and any equipment, facility, rights-of-way, or building used or intended for use in the transportation of a hazardous substance by a pipeline and having a throughput capacity of 140 gallons per minute (530 liters per minute) or greater. This term does not include the transportation of a hazardous substance through onshore production or flow lines, refining, or manufacturing facilities, or storage terminals or inplant piping systems associated with those facilities. Any pipe used or intended to be used in the transportation of a

hazardous substance which is not a transmission pipeline will be considered an in-facility pipe.

"Underground storage tank" means any tank defined as such in N.J.A.C. 7:14B.

"Vessel" means every description of watercraft or other contrivance that is practicably capable of being used as a means of commercial transportation of hazardous substances upon the waters, whether or not self propelled.

"Waters" means the ocean and its estuaries to the seaward limit of the State's jurisdiction, all springs, streams and bodies of surface or ground water, whether natural or artificial, within the boundaries of this State.

Amended by R.1992 d.186, effective April 20, 1992.  
See: 23 N.J.R. 2848(a), 24 N.J.R. 1484(a).

Definitions added for "assertedly confidential information", "claimant", "class confidentiality determination", "confidential copy", "confidential information", "confidentiality claim" and "confidentiality determination", "contract", "contractor", "final public copy", "record", "requester" and "substantiation".

Amended by R.1996 d.252, effective June 3, 1996.

See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### Case Notes

Terms defined in Spill Compensation and Control Act regulations were not void for vagueness. In re Adoption of N.J.A.C. 7:1E, 255 N.J.Super. 469, 605 A.2d 733 (A.D.1992).

Spill Compensation and Control Act regulations which required reporting of discharges were constitutional. In re Adoption of N.J.A.C. 7:1E, 255 N.J.Super. 469, 605 A.2d 733 (A.D.1992).

Spill Compensation and Control Act regulations which did not specify discharge quantity were not unconstitutional on their face. In re Adoption of N.J.A.C. 7:1E, 255 N.J.Super. 469, 605 A.2d 733 (A.D.1992).

#### 7:1E-1.7 Hazardous substances

(a) Petroleum and petroleum products and all substances listed in Appendix A to this chapter, incorporated herein by reference, shall be considered hazardous substances for the purposes of this chapter. Appendix A includes:

1. Pesticides designated as prohibited or restricted use, pursuant to N.J.A.C. 7:30 (effective as of August 21, 1988);
2. Substances designated as environmental hazardous substances, pursuant to N.J.A.C. 7:1G-2.1 (effective as of February 16, 1988);
3. Substances designated as hazardous substances in 40 CFR 116.4 (July 1, 1989 ed.);
4. Substances designated as toxic pollutants in 40 CFR 401.15 (July 1, 1989 ed.);
5. Substances designated as hazardous substances in 40 CFR 302.4 (July 1, 1990 ed.);
6. Substances designated as extremely hazardous substances in 40 CFR 355, Appendices A and B (July 1, 1989 ed.); and

7. Substances designated as toxic chemicals in 40 CFR 372 (July 1, 1989 ed.).

(b) In the event of a difference between any list included in (a) above and the list contained in Appendix A to this chapter, the list in Appendix A shall supersede.

(c) Sewage and sewage sludge shall not be considered hazardous substances for the purposes of this chapter.

Amended by R.1996 d.252, effective June 3, 1996.

See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### Case Notes

Question whether prior operator of business was responsible for contamination precluded summary judgment. Elf Atochem North America, Inc. v. U.S., E.D.Pa.1993, 833 F.Supp. 488.

#### 7:1E-1.8 Environmentally sensitive areas

(a) For the purposes of designing and implementing a DPCC and a DCR plan, pursuant to N.J.A.C. 7:1E-4, the following shall be considered environmentally sensitive areas:

1. Surface waters, including, without limitation the following: large rivers, medium rivers, streams, creeks, ponds, lakes, and reservoirs as defined in N.J.A.C. 7:7E-4.1; canals as defined in N.J.A.C. 7:7E-3.8; estuaries, as defined in 33 U.S.C. §1330(k); and bays, including without limitation open bays, semi-enclosed bays and back bays, as defined in N.J.A.C. 7:7E-4.1;
2. Sources of water supply, including surface water intakes, and wells drawing from aquifers and confined aquifers as defined at N.J.A.C. 7:19-6.2, which are utilized by public community water systems, public noncommunity water systems, public water systems, and water systems, as defined at N.J.A.C. 7:10-1.3;
3. Bay islands, as defined at N.J.A.C. 7:7E-3.21, and barrier island corridors, as defined at N.J.A.C. 7:7E-3.20;
4. Beaches, as defined in N.J.A.C. 7:7E-3.22;
5. Dunes, as defined in N.J.A.C. 7:7E-3.16;
6. Wetlands and wetland transition areas, including without limitation the following: freshwater wetlands and wetland transition areas, as defined at N.J.A.C. 7:7A-1.4; and wetlands, as defined in N.J.A.C. 7:7E-3.27;
7. Breeding areas for forest area nesting species, colonial waterbirds or aquatic furbearers;
8. Migratory stopover areas for migrant shorebirds, raptors or passerines;
9. Wintering areas, including coastal tidal marshes and water areas, waterfowl concentration areas and Atlantic white cedar stands;
10. Prime fishing areas, as defined in N.J.A.C. 7:7E-3.4;

11. Finfish migratory pathways, as defined in N.J.A.C. 7:7E-3.5;
12. Estuarine areas supporting various species of submerged vegetation, as defined in N.J.A.C. 7:7E-3.6;
13. Shellfish harvesting waters as defined in N.J.A.C. 7:7E-3.2 and 7:9B-1.4;
14. Forest areas, including prime forestland and unique forestland;
15. Habitat for Federal and State endangered or threatened plant and animal species identified pursuant to the Federal Endangered Species Act of 1973, P.L. 93-205, the New Jersey Endangered and Nongame Species Conservation Act, N.J.S.A. 23:2A, and the New Jersey Endangered Plant Species List, N.J.A.C. 7:5C-5.1;
16. Federal and State wilderness areas, including areas included within the Natural Areas System or the State Register of Natural Areas pursuant to the Natural Areas System Act, N.J.S.A. 13:1B-15.12a et seq. and 15.4 et seq., and N.J.A.C. 7:2-11, and preserved land held by the New Jersey Natural Lands Trust pursuant to the New Jersey Natural Lands Trust Act, N.J.S.A. 13:1B-15.119 et seq.; and
17. Areas designated as wild, scenic, recreational, or developed recreational rivers, pursuant to the National Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq., or the New Jersey Wild and Scenic Rivers Act, N.J.S.A. 13:8-45 et seq. and N.J.A.C. 7:38.

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### 7:1E-1.9 Access

(a) During normal business hours and at any time during an actual or suspected discharge or violation the Department and its representatives shall have the right to enter and inspect any facility, vessel, building, or equipment, or any portion thereof, in order to ascertain compliance with the Act, this chapter, or any order, or consent agreement issued or entered into pursuant thereto. At any time, the Department and its representatives shall have the right to enter and inspect those portions of any facility, vessel, building or equipment actively engaged in the transfer or processing of hazardous substances in order to ascertain compliance with the Act or this chapter, or any order, consent order or agreement issued or entered into pursuant thereto. Such right shall include, but not be limited to, the right to test or sample any materials at the facility, to sketch, photograph or videotape any portion of the facility, vessel, building or equipment, to copy or photograph any document or records necessary to determine such compliance or non-compliance; and to interview any employees or representatives of the owner or operator or their contractors. Such right shall be absolute and shall not be conditioned upon any action by the Department, except the presentation of

appropriate credentials as requested and compliance with appropriate standard safety procedures.

(b) (Reserved)

(c) (Reserved)

(d) Owners or operators, and any employees or representatives thereof, shall assist and shall not hinder or delay the Department and its representatives in the performance of all aspects of any inspection.

Amended by R.1992 d.186, effective April 20, 1992.  
See: 23 N.J.R. 2848(a), 24 N.J.R. 1484(a).

Deleted (e) regarding availability of information.

#### Case Notes

Entry upon and use of debtor's property by State Department of Environmental Protection personnel for purposes of implementing necessary remedial action to contain or remove dioxin and minimize public exposure was not contemptuous action as a violation of the automatic stay or consent order in force. In the Matter of Hildermann Industries, Inc., 53 B.R. 509 (Bkrcty.Ct.N.J.1984).

#### 7:1E-1.10 Waiver

The Department, when it determines that the application of these rules would impair expeditious containment or cleanup and removal of discharges, or endanger life, health, safety or the environment, may waive any provision of these rules.

#### 7:1E-1.11 Applicability

(a) No person shall cause, suffer, allow or permit a discharge of a hazardous substance.

(b) Major facilities, as defined in N.J.A.C. 7:1E-1.6, are required to meet the standards of this chapter. The Department shall grant the owner or operator of a major facility a reasonable period of time, in light of all circumstances including economic feasibility, to upgrade to meet the standards of N.J.A.C. 7:1E-2, excluding the requirements of N.J.A.C. 7:1E-2.2(a)4 and 2.2(a)5, if the major facility proves to the satisfaction of the Department that such a time period is needed. The rate of such upgrading shall be proposed by the owner or operator as part of the DPCC and DCR plans submitted pursuant to N.J.A.C. 7:1E-4.

(c) A non-major facility which adds storage capacity so as to become a major facility shall be considered a major facility.

(d) The Department may require of any major facility which has been granted a period to upgrade, the installation of alternative prevention and/or detection devices such as alarms, so as to minimize the chances of a discharge, and may, in addition, require the owner or operator of such a major facility to demonstrate an enhanced ability to prevent, expeditiously contain and/or clean up and remove a discharge from the portion of the facility to which a time

period to upgrade has been granted. If the Department requires the installation of alternative prevention and/or detection devices, the owner or operator shall propose the devices to be used, subject to the Department's approval.

- <sup>c</sup> (e) The Department recognizes that the designs of major facilities differ, and, therefore, appropriate methods of discharge prevention are necessarily site-specific. Wherever in these rules a particular method of discharge prevention is mandated, the owner or operator of a major facility may substitute an alternate method if he or she can demonstrate to the satisfaction of the Department that such alternate method will provide protection against discharges at least equivalent to the method it is intended to replace.

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### Cross References

Violations, civil administrative penalties, see 7:1E-6.8.

#### Case Notes

Under New Jersey law, insured's disclosures in environmental plans and permit applications did not compel finding of intended or expected environmental damage not covered by comprehensive general liability insurance policies. *Pittston Co. v. Allianz Ins. Co.*, D.N.J.1995, 905 F.Supp. 1279.

Commencing transfer operations of leaking gasoline in severe weather conditions that increased risk of discharge warranted civil administrative penalties. *Department of Environmental Protection v. Stolt-Nielsen*, 95 N.J.A.R.2d (EPE) 157.

## SUBCHAPTER 2. PREVENTION AND CONTROL OF DISCHARGES AT MAJOR FACILITIES

### 7:1E-2.1 Scope

This subchapter prescribes the rules of the Department applicable to the owners or operators of major facilities storing, transferring, processing or using hazardous substances. The following shall govern the standards for equipment and procedures utilized at major facilities.

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### Cross References

Discharge prevention, containment, and countermeasure plans, see 7:1E-4.3.

Violations, civil administrative penalties, see 7:1E-6.8.

### 7:1E-2.2 Storage

(a) Aboveground storage tanks shall meet the following standards:

1. Aboveground storage tank installations shall be provided with an adequate means of secondary containment, designed and built pursuant to N.J.A.C. 7:1E-2.6, and 40 CFR 112, including amendments and supplements, where applicable.

2. The base underlying the storage tank shall be made of or surfaced with a material impermeable to passage or chemical attack by the stored substance under the conditions of storage prevailing within the tank. Existing storage tanks shall be exempt from this requirement until such time as they may require substantial reconstruction or replacement, unless the Department orders a storage tank removed from service because of the likelihood of a discharge. Before such a tank is returned to service, it must meet this requirement.

3. Pipes leading to and from aboveground storage tanks which enter the tank below the liquid level shall be equipped with valves that can be remotely activated or are readily accessible in the event of a leak or discharge, and which are sufficiently close to the tank that they can prevent the contents of the tank from escaping outside the secondary containment area in the event of a pipe rupture outside the containment area. Such pipes shall not penetrate or pass through any walls, dikes or berms used as secondary containment, unless the impermeability or integrity of the secondary containment is not impaired.

4. Aboveground storage tanks with a capacity greater than 2,000 gallons and all appurtenant piping to the first valve shall be subject to initial integrity testing or static head product testing on a schedule which takes into account the age of the tank, proximity to surface water supplies, the leak record of the tank for the preceding five years, and the date of the tank's last integrity test, as delineated in Table 1, and according to the schedule in Table 2. Thereafter, each aboveground storage tank with a capacity greater than 2,000 gallons and its appurtenant piping to the first valve shall undergo integrity testing at intervals based on the construction material of the tank, substances stored, soil conditions, corrosion allowance remaining, corrosion rate, leak history of the tank, degree of risk and the results of visual inspections, as described in the DPCC plan pursuant to N.J.A.C. 7:1E-4.3(d). In no case shall the period of time between tests exceed five years, unless the tank has an inspection and maintenance program that is in compliance with API 653, incorporated herein by reference. Integrity testing should be performed in compliance with accepted industry standards, which include, but are not limited to, API 574, API 653, ASME Section V, ASME Section VIII, and ASME Section X, incorporated herein by reference.



Table 1  
Testing Schedule Factors

Factor	Points
Age of tank (years)	
>50	10
26-50	6
10-25	3
<10	1
Proximity to surface water supplies (feet)	
≤500	5
>500	1
Number of leaks in past five years	
≥2	25
1	5
0	1
Years since last structural integrity test	
≥5	15
>1 but <5	5
≤1	1

Table 2  
Initial Testing Schedule

Total points from Table 1	Deadline for testing
>30	February 1, 1992
21-30	August 1, 1992
11-20	February 1, 1993
≥10	August 1, 1993

5. A report on the initial integrity testing or static head product testing required by (a)4 above shall be submitted to the Department within 30 days of the completion of the test. This report shall include identification of the facility and the equipment tested, the age of the equipment, the test method(s) used, date of the test(s), name and affiliation of the person performing the test, the summary test results, any repairs performed or scheduled to be performed after the tests, and the expected service life of the equipment. The report shall be certified pursuant to N.J.A.C. 7:1E-4.11, and shall be sent to:

Bureau of Discharge Prevention  
New Jersey Department of Environmental Protection  
CN 424  
Trenton, New Jersey 08625-0424

(b) Underground storage tanks shall meet the requirements of N.J.A.C. 7:14B.

(c) If a storage tank is served by internal heating coils, such coils, the pipes leading to and from them, and the appurtenances to which they connect, must be designed so that any leakage passing from the tank into the heating coil system will be captured and contained in a secondary containment or wastewater treatment system.

(d) Aboveground storage tanks shall be equipped with devices capable of detecting overfills. Every aboveground storage tank, except as provided in (e) below, shall have a high liquid level alarm with an audible or visual signal designed to alert plant personnel of overfills, and one of the following:

1. A high high liquid level pump cutoff device designed to stop flow at a predetermined level;
2. Direct communication between tank gauger and pumping station; or
3. Fast response systems for determining liquid levels, such as monitored visible gauges or computer links.

(e) Owners or operators of aboveground storage tanks of 2,000 gallons or less may meet the requirement of (d) above by having such tanks attended at all times during the filling procedure.

(f) Storage tank overfill lines, where they exist, shall be directed into secondary containment, other tanks, or other containment holding areas.

(g) Mobile or portable storage tanks shall be positioned or located so as to be protected by secondary containment or diversion structures designed and built pursuant to N.J.A.C. 7:1E-2.6. Such storage tanks shall not be located in areas subject to periodic flooding or washout, unless adequately protected so as to prevent hazardous substances stored therein from being carried off or discharged at times of flooding or washout.

(h) Drum and other storage areas shall be equipped with adequate secondary containment designed and built pursuant to N.J.A.C. 7:1E-2.6.

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

### 7:1E-2.3 Tank car or tank truck loading/unloading areas

(a) All tank car or tank truck loading/unloading areas employed in the transfer of hazardous substances shall be paved or surfaced in the area of transfer with impermeable materials, and equipped with an adequate means of secondary containment, designed and built pursuant to N.J.A.C. 7:1E-2.6.

(b) Prior to the filling of any tank car or tank truck, the lowermost drain and all outlets of such vehicle shall be examined in accordance with the applicable SOP to insure they are closed.

(c) During filling and prior to departure of any tank car or tank truck, the lowermost drain and all outlets of such vehicles shall be closely examined for leakage, in accordance with the appropriate SOP, and if necessary, tightened, adjusted, repaired or replaced so as to prevent liquid leakage in transit. All manifolds on tank cars or tank trucks shall be

flanged or capped, and valves secured, prior to leaving transfer areas.

(d) A system to prevent tank car or tank truck departure before complete disconnect of transfer lines, such as a physical barrier (that is, wheel chocks) or brake interlock system, shall be utilized in transfer areas.

(e) Tank cars in the process of being loaded or unloaded shall be attended at reasonable intervals during the procedure, and shall be attended during topping off, in accordance with the appropriate SOP. Tank trucks in the process of being loaded or unloaded shall be attended at all times during the procedure, in accordance with the appropriate SOP.

#### 7:1E-2.4 In-facility pipes for hazardous substances

(a) Where practicable, each in-facility pipe at a major facility containing a hazardous substance shall be marked by lettering, color banding or color coding to indicate the substance transferred through it.

(b) New buried piping installations shall be double walled, or have adequate secondary containment designed and built pursuant to N.J.A.C. 7:1E-2.6 and a product-sensitive leak detection device, where such devices are state-of-the-art technology.

(c) Existing buried pipes shall be equipped with product-sensitive leak detection devices, where such devices are state-of-the-art technology.

(d) If a section of buried pipe is exposed for any reason, the owner or operator shall ensure that it is carefully examined for deterioration, and if found to be deteriorated, shall be repaired or replaced. Existing pipes which require substantial reconstruction or replacement shall be upgraded to the standards applicable to new buried piping.

(e) Pipes removed from service shall be capped or blank-flanged and marked as to origin, or physically removed.

(f) Pipe supports should be designed so as to minimize abrasion and corrosion and allow for expansion and contraction.

(g) If in-facility pipes are elevated across roadways, gate check-in procedures, warning signs or other means shall be used to minimize the chance of a vehicular collision with the pipes.

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### 7:1E-2.5 Process areas at major facilities for hazardous substances

(a) Drainage from production facilities, including buildings, and other process areas shall be designed and built so as to provide a means of secondary containment or diversion for leaked hazardous substances pursuant to N.J.A.C. 7:1E-2.6.

(b) Process wastewater and cooling water pipes, plant drains and similar installations which drain into sewers, storm drains, public wastewater treatment plants, watercourses or other routes which drain to the waters of the State shall be engineered so that leaks of hazardous substances will not escape through them to waters of the State. If hazardous substances captured in secondary containment systems will drain into process wastewater lines, provision must be made to ensure compliance with the applicable NPDES or NJPDES permit before the water is discharged.

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### 7:1E-2.6 Facility drainage and secondary containment

(a) All portions or areas of a major facility in which hazardous substances are routinely refined, produced, stored, held, handled, processed, or transferred shall be designed so that any leak will be prevented from becoming a discharge.

(b) Impermeable secondary containment or diversion structures to prevent leaked hazardous substances from becoming discharges include:

1. Dikes, berms or retaining walls;
2. Curbing;
3. Gutters, culverts and drainage systems;
4. Diversion ponds, lagoons, retention basins, holding tanks, sumps, slop tanks and other collecting systems;
5. Drip pans; or
6. Other equivalent means approved by the Department.

(c) Secondary containment or diversion systems, structures or equipment shall meet the following standards;

1. The secondary containment or diversion system must block all probable routes by which leaked hazardous substances could reasonably be expected to become discharges;
2. The capacity of the secondary containment or diversion system shall include an additional capacity to accommodate six inches of rainwater, if the secondary containment or diversion structure is located such that rainwater could accumulate in it, and shall be:
  - i. For storage areas, the volume of the largest tank or drum utilizing the system;
  - ii. For tank car or tank truck loading/unloading areas, the volume of the largest compartment in any tank car or tank truck utilizing the area;
  - iii. For buried pipes, the maximum volumetric flow rate multiplied by the maximum amount of time between the detection of a leak and the shutdown of the pipe; or

iv. For process areas, the volume of the largest piece of equipment in the area, or the volumetric flow rate through the area multiplied by the maximum amount of time between the detection of a leak and the shutdown of the system, whichever is greater;

3. All components of the secondary containment or diversion system shall be made of or lined with impermeable materials, which must be maintained in an impermeable condition. Existing systems for existing aboveground storage tanks are exempt from this requirement if the existing system:

i. Can protect ground water for the period of time needed to clean up and remove a leak, up to the entire volume of the largest tank utilizing the system;

ii. Allows the visual detection of leaks; and

iii. Is inspected daily;

4. No process area, transfer area, diked storage area or other storage area, or secondary containment or diversion system appurtenant thereto shall drain into a watercourse, or into a ditch, sewer, pipe or storm drain that leads directly or indirectly into a watercourse or public sewage treatment plant, unless provision is made to:

i. Retain, by valves or other positive means, any accumulated precipitation until its condition can be ascertained; or

ii. Intercept any leaked hazardous substances in a permitted industrial wastewater treatment or pretreatment facility or other facility operated in accordance with a valid and effective NJPDES or NPDES permit;

5. Catchment basins, lagoons, and so forth, shall not be located in a manner that would subject them to flooding;

6. Incompatible materials shall not be stored within the same containment area if there is a substantial likelihood of them mixing in the event of leakage. This restriction does not apply to process areas where the substances are brought into proximity as part of a production process; and

7. Provision shall be made for promptly removing leaked hazardous substances from a secondary containment or diversion system. Secondary containment systems shall not be used as backup storage systems nor for any other purpose that would impair their capacity to contain leaks.

(d) A major facility handling nonmiscible lighter-than-water hazardous substances, which is adjacent to, or sufficiently near a body of surface water such that a leak from the facility would be reasonably expected to become a discharge, shall maintain on site flotation boom and/or filter fences and/or sorbent materials sufficient to contain and prevent the further spread of discharges.

#### 7:1E-2.7 Marine transfer facilities

(a) All rules and regulations of the U.S. Coast Guard which apply to oil transfer facilities, in particular 33 CFR 154 and 156, are herein expressly adopted by reference, and are further made applicable as well to all marine transfer facilities which transfer in the liquid state any hazardous substances other than oil.

(b) If oil or other nonmiscible lighter-than-water hazardous substances are transferred at the facility, there shall be kept available a length of flotation boom or other containment device sufficient to totally enclose a vessel while engaged in the transfer of hazardous substances from a vessel to the facility or from the facility to a vessel.

(c) When transferring hazardous substances between vessels, the containment device shall be capable of encircling both vessels.

(d) A containment device shall be deployed prior to commencing the transfer of any nonmiscible lighter-than-water hazardous substance with a flash point in excess of 100 degrees Fahrenheit (38 degrees centigrade) as measured by the Penske-Martens closed cup flash test (ASTM D-93, incorporated herein by reference), when current and wind conditions permit the effective use of such devices and the device can be safely deployed without endangering any personnel, any vessel, or obstructing any shipping channel. This provision does not apply to the transfer of any hazardous substance to be used as a fuel or a lubricant by the vessel.

(e) When conditions prohibit the immediate deployment of a containment device, such containment device shall be maintained on a standby basis during the transfer for rapid deployment in the event of a discharge.

(f) When transferring or receiving hazardous substances where the vessel is docked parallel to the dock, the containment device is to originate at some point before the bow and terminate at some point behind the stern of the vessel so that the dock itself constitutes one side of the contained area, if the dock is capable of acting as an effective barrier.

(g) In the case of an "open pier" or a "finger dock" where the vessel is docked perpendicular to the dock, the boom is to encircle the entire vessel except for the area of the dock the vessel sits adjacent to, if the dock is capable of acting as an effective barrier.

(h) If a containment device is required by the Department to be in place during a transfer of a hazardous substance, the device shall be deployed not less than 15 feet from the vessel prior to commencement of the transfer operation, except in the case where a dock may act as part of the containment.

(i) Transfer operations shall not commence, or if commenced shall be discontinued immediately, upon detection of any of the following conditions:

1. Weather forecasts predict for the vicinity of the facility that winds will reach gale force, or that heavy rain, sleet, snow or other storm conditions will substantially reduce visibility or otherwise increase the risk of discharges, or if severe weather conditions occur after transfer operations have been commenced;

2. Fire occurs in the vicinity of the transfer operation or a nearby portion of the transfer facility unless such a transfer is necessary to prevent further endangerment of personnel, the vessel or facility;

3. At any time the transfer system is functioning contrary to the standard operating procedures of the facility;

4. A break occurs in the transfer system;

5. There is an apparent discrepancy between the quantity of hazardous substance transferred and received;

6. The communication system is not operative;

7. Hazardous substances are observed in the water near any transfer component, unless it can be ascertained that the hazardous substances are not being discharged from the vessel or the marine transfer facility involved in the transfer operation; or

8. A discharge occurs during transfer. Transfer shall not be resumed until after the discharge has been reported to the Department, and the Department or Federal on-scene coordinator under the National Contingency Plan pursuant to 40 CFR 1510 is satisfied that adequate steps have been taken to contain the discharge and to prevent further discharges. Under certain circumstances, it may be necessary to continue transfer operations even though a discharge has occurred, for example, in order to off-load the contents of a vessel which is leaking.

(j) When a containment device is deployed, prior to its removal, all discharged hazardous substances contained by the device shall be properly cleaned up and removed.

(k) Any containment device deployed shall be retrieved and properly cleaned or disposed of by the owner or operator upon completion of the transfer, or at such time as it is no longer needed to prevent the spread of or to divert a discharge.

Amended by R.1996 d.252, effective June 3, 1996.

See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### Case Notes

Commencing transfer operations of leaking gasoline in severe weather conditions that increased risk of discharge warranted civil administrative penalties. Department of Environmental Protection v. Stolt-Nielsen, 95 N.J.A.R.2d (EPE) 157.

#### 7:1E-2.8 Illumination

(a) Major facilities which transfer hazardous substances to or from vessels between the hours of sunset and sunrise shall perform all such transfers using fixed lighting that shall adequately illuminate:

1. Each transfer connection point in use at the facility;
2. Each transfer connection point in use on the vessel;
3. Each hazardous substances transfer work area at the facility; and
4. Each hazardous substances transfer work area on the vessel.

(b) Major facilities which transfer hazardous substances to or from vessels between the hours of sunset and sunrise shall perform all such transfers using fixed or portable lighting that shall adequately illuminate surface area of the water surrounding the vessel sufficient to determine that no discharge is occurring.

(c) Adequate lighting shall mean any lighting which complies with U.S. Coast Guard rules or regulations applicable to oil transfers facilities, particularly 33 CFR 154.570.

#### 7:1E-2.9 Flood hazard areas

Hazardous substances stored within the 100-year flood hazard area of any watercourse as delineated by the Department in N.J.A.C. 7:13-7.1 or stored within an area known by the owner or operator of the major facility to be subject to a high probability of flooding shall be adequately protected so as to prevent such hazardous substances from being carried off by or being discharged into flood waters.

#### 7:1E-2.10 Leak detection and monitoring

(a) All equipment and portions of the major facility in service using hazardous substances shall be visually inspected in accordance with standard operating procedures pursuant to N.J.A.C. 7:1E-2.14, in order to detect any leaks or discharges. Visual inspections shall be performed at a minimum according to the following schedule:

1. Prior to each use, all transfer area lighting, and all aboveground transfer valves, pumps, flanges and connections, unless they are not readily accessible, that are to be used in the transfer;
2. Once daily, all secondary containment systems and diversion systems for aboveground storage tanks which are not impermeable and all process areas;
3. Once weekly, all other storage areas and secondary containment or diversion systems, and all aboveground pipes;
4. Once quarterly, all other aboveground valves, pumps, flanges, connections and equipment, and all security fences and locks; and

5. Once every five years, the interior of aboveground tanks, unless the tank has an inspection and maintenance program that is in compliance with API 653. Aboveground tanks with a capacity of 2,000 gallons or less shall be exempt from this requirement.

(b) Records shall be kept for all visual inspections. These records shall document that inspections were performed, any problems found, and the subsequent correction of such problems.

(c) Unless a leak or discharge is likely to be detected by personnel, product gauging, an automatic leak detection system, or other means acceptable to the Department, the owner or operator of a major facility shall implement a ground water monitoring program approved by the Department and satisfying the requirements of N.J.A.C. 7:14A-6.

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### 7:1E-2.11 Housekeeping and maintenance

(a) Hazardous substances shall be kept in containers suitable for their storage or processing at all times except when being transferred between containers. Containers shall be compatible with the substances stored therein and resistant to chemical attack by the substances. Hazardous substances shall be kept protected from the elements and the possibility of leakage.

(b) Tanks, pipes, valves, glands, drums or other equipment leaking hazardous substances shall be promptly repaired, replaced or taken out of use following detection of a leak, unless provision is made to capture and contain leaking hazardous substances in a drip pan or other appropriate containment device. If such provision is made, the leaking item shall be repaired, replaced or taken out of use within 15 days after the leak is detected unless the shutdown of a process unit is necessary. A leak shall be repaired at the earliest period in which either the process is not in operation or the particular unit is out of service, whichever occurs first.

(c) Cleanup of all leaks or discharges of hazardous substances shall begin promptly upon detection. Loose quantities of hazardous substances shall not be allowed to persist on grounds, floors, walls or equipment, or any other places within the facility.

(d) The facility shall keep on hand, in convenient locations, adequate quantities of sorbent materials, chemical neutralizing agents or other materials as needed, sufficient to contain and clean up such small leaks or discharges as may be expected to occur in the ordinary operations of the facility.

(e) The facility shall maintain an adequate supply of protective safety equipment, such as chemically resistant coveralls, boots, or gas masks, in convenient locations for

use by any personnel who are required to clean up leaked or discharged hazardous substances. Where protective safety equipment is required by any regulation of the Federal Occupational Safety and Health Administration, compliance with such regulation shall be deemed to fulfill this requirement.

(f) Secondary containment or diversion systems shall be maintained in good repair, free of cracks through which hazardous substances could be discharged.

(g) Flexible hoses which are used to transfer hazardous substances shall be visually inspected prior to each use. Visibly damaged, deteriorated or discarded hoses shall be immediately taken out of service and removed from the work area.

#### 7:1E-2.12 Employee training

(a) Owners or operators of major facilities shall implement an appropriate program for training their employees involved in the handling of hazardous substances and shall maintain a written description of the program.

(b) The training program shall include, at the minimum, the following:

1. A written job description which includes the duties and responsibilities relating to hazardous substances for each position, and the education, experience and training necessary to qualify for the position;

2. Procedures to determine whether an employee has demonstrated the ability to carry out the duties and responsibilities of a specific position; and

3. Specified time periods of in-house training for each position covering orientation, specific hazardous substances training and on-the-job training, trainee evaluation, final qualification, and periodic refresher training. A procedure shall be established for tracking the progress of each employee at regular intervals and shall be included in the written description required by (a) above. In addition, the maximum period of time for each training program shall be established within which the employee must achieve qualified status.

(c) The training which employees will receive shall, at a minimum, include:

1. General orientation and initial training of new employees before assignment to hazardous substance operations, which shall include instruction on the general site rules and practices, safety procedures and equipment, and the DCR plan, including identification of all environmentally sensitive areas delineated in the plan;

2. Classroom training for new or newly assigned employees involved with hazardous substances. This training shall cover the details of standard operating procedures and safety training specific to a hazardous substance, including a detailed review of the hazardous substance

material safety data sheets, the safe handling practices for the hazardous substance, the hazards of the operation involving the hazardous substance, and emergency procedures regarding fires, leaks and discharges;

3. On-the-job training for newly assigned employees, including, but not limited to:

- i. Equipment familiarization;
- ii. Operating data collection and entry;
- iii. Actual equipment startup and shutdown;
- iv. Control and adjustment of operating conditions; and
- v. The application of standard operating procedures to actual conditions; and

4. Refresher training at least once a year which shall present an overview and updated information on the standard operating procedures, hazardous substances material safety data sheets, safe handling of the hazardous substances, and procedures to be followed in the event of a leak or discharge.

(d) The training program shall specify the qualifications required for the personnel responsible for training employees working with hazardous substances.

(e) Documentation of all training, evaluation and qualifying activities for each employee shall be kept at the facility and shall include identification of all personnel trained, their job titles, subjects covered and training dates.

(f) Owners or operators shall have procedures to insure that all employees utilized by outside contractors have received appropriate training.

### 7:1E-2.13 Security

(a) Major facilities shall be adequately illuminated so that personnel on the premises can detect intruders, leaks or discharges during hours of darkness.

(b) Major facilities shall have security consisting of:

1. Fencing adequate to prevent unauthorized entry (full fencing on land) of all portions or areas within which hazardous substances are stored, processed, transferred or used, with entrance gates locked and/or guarded when the facility is unattended, and either locked, guarded or under observation by personnel at all other times; or

2. All of the following:

i. Valves which will permit escape of a tank's or other container's contents to the surface securely locked in the closed position when not in use;

ii. Starter controls on all pumps locked in the "off" position when the pumps are not in use unless the controls are located at a site accessible only to authorized personnel, which site is itself attended or locked; and

iii. The open ends of all pipes securely capped or blank-flanged when not in use for an extended time.

### 7:1E-2.14 Standard operating procedures

(a) The standard operating procedures shall be written in English in a manner understandable by employees of the major facility and shall also be written in the language of fluency of employees utilizing those SOPs not fluent in English.

(b) A copy of the standard operating procedures shall be readily available to employees.

(c) A copy of material safety data sheets or fact sheets for each hazardous substance used or stored at the facility shall be readily available to employees.

(d) The standard operating procedures shall include, but not be limited to:

1. Simplified process flow sheets and a process description defining the operation and showing flows, temperatures and pressures;

2. Procedures and conditions for normal operation;

3. A description of the most common abnormal conditions, including the control and mitigating procedures to be followed to return to normal conditions;

4. A description of leak or discharge conditions which could occur, including the control and mitigation procedures to be followed to reduce the impact of the leak or discharge conditions;

5. Pre-startup procedures;

6. Startup procedures including conditions to be maintained during startup;

7. Shutdown procedures including provisions for normal and emergency shutdown and details on the condition of equipment to be maintained after shutdown;

8. A description of the type, location and purpose of containment systems and devices, leak monitoring equipment and alarms;

9. Safety procedures related to each specific operation in the standard operating procedures;

10. Procedures for visual inspection of equipment;

11. Procedures to prepare equipment for maintenance and inspection of maintenance work upon completion and prior to placement of equipment in service; and



12. Log sheets and checklists where appropriate to the operation.

(e) A generic SOP may be written when more than one piece of equipment designed to perform the same function is located at the facility. Such a generic SOP must cover all hazardous substances used by all the equipment and must delineate any special conditions associated with a specific piece of equipment or hazardous substance.

(f) Modifications to the standard operating procedures shall be incorporated into the standard operating procedures prior to their implementation.

(g) A current index of the standard operating procedures with corresponding latest dates of issue shall be maintained and readily available.

#### 7:1E-2.15 Recordkeeping

(a) The owner or operator of a major facility shall maintain records of employee training and drills for discharge prevention, hazardous substances inventories, and confirmation reports on discharges pursuant to N.J.A.C. 7:1E-5.8 for a period of 10 years.

(b) The owner or operator of a major facility shall maintain records of integrity testing, inspection, major maintenance, and major repair of all structures, equipment, and detection or monitoring, prevention or safety devices related to discharge prevention and response for the lifetime of the structure, equipment or device.

(c) All records shall be available for inspection upon the request of the Department or appropriate local agencies.

(d) Records may be retained on microfilm or microfiche or may be kept in an electronic or computerized form if they are adequately backed up.

2. The name and business address of the owner or operator's registered agent;

3. The storage capacity of any facility;

4. A description of the hazardous substances which are stored, held, handled, transferred or transported by the facility;

5. The transfer capacity and the average daily throughput, on an annual basis, of the transmission pipeline for each hazardous substance;

6. An accurate map or maps, showing the location of each of the owner or operator's pipeline facilities, storage areas, transfer areas, or other structures in or on which hazardous substances are stored or handled, the geographical features of the surrounding area, and the location at which the pipeline facility enters or leaves the State. Those maps which are currently maintained pursuant to regulations of the U.S. Department of Transportation are sufficiently accurate;

7. An inventory of all types of pipe used for the transmission of hazardous substances, including a history of major repairs, major maintenance and major leaks from all pipes; and

8. Any certifications required pursuant to N.J.A.C. 7:1E-4.11(b).

(b) Any change in the information supplied pursuant to (a) above shall be reported to the Department within 60 days.

(c) The information required by (a) or (b) above shall be sent to:

Bureau of Discharge Prevention  
New Jersey Department of Environmental Protection  
CN 424  
Trenton, New Jersey 08625-0424  
Attention: Pipeline Registration

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

### SUBCHAPTER 3. TRANSMISSION PIPELINES

#### 7:1E-3.1 Scope

This subchapter prescribes the rules of the Department for information to be submitted concerning transmission pipelines. The following rules shall govern the preparation and submission of registrations.

#### 7:1E-3.2 Registration of transmission pipelines

(a) By February 1, 1992, and by each February 1 at five year intervals thereafter, the owner or operator of a transmission pipeline shall submit the following information to the Department, on forms provided by the Department:

1. The business name(s), address and telephone number of the owner or operator of the facility;

#### 7:1E-3.3 Standards

All transmission pipelines shall conform to 49 CFR 195, "Transportation of Liquids by Pipeline", and any future supplements and amendments thereto.

#### 7:1E-3.4 Discharge cleanup information

(a) By February 1, 1992, the owner or operator of a transmission pipeline shall submit the following information to the Department at the address specified in N.J.A.C. 7:1E-3.2(c):

1. A summary of the action plan used in responding to, and minimizing health and environmental dangers

from, fires, explosions or discharges, including the deployment of personnel and equipment, the chain of command for an emergency response action, and notification procedures pursuant to N.J.A.C. 7:1E-5;

2. A list of containment and removal equipment and materials to which the transmission pipeline has access through ownership, contract or other means, including, but not limited to, vehicles, vessels, pumps, skimmers, booms, chemicals, and communications devices. If access to equipment is by contract with or membership in a discharge cleanup organization which has filed information with the Department pursuant to N.J.A.C. 7:1E-4.2, it is sufficient to supply the name of the organization in lieu of an equipment list;

3. A list of the trained personnel who are available to operate such equipment and a brief description of their qualifications. If personnel to be used for this purpose are employees of a discharge cleanup organization which has filed information with the Department pursuant to N.J.A.C. 7:1E-4.2, it is sufficient to supply the name of the organization in lieu of a personnel list. In lieu of supplying a list of names, the owner or operator may supply a list of job titles of employees who will be assigned to operate containment and removal equipment, and a statement of the minimum qualifications that will be required of each employee so assigned;

4. The name, title and 24-hour business telephone number of facility's response coordinator or other person authorized to hire contractors and release funds for discharge response, containment, cleanup and removal. A response coordinator or alternate shall be available at all times; and

5. Procedures for determining the recycling or disposal options for hazardous substances or contaminated soil, debris, and so forth gathered during cleanup and removal operations.

## SUBCHAPTER 4. REGISTRATIONS AND PLANS

### 7:1E-4.1 Scope

This subchapter prescribes the rules of the Department for information to be submitted concerning major facilities and discharge cleanup organizations. The following rules shall govern the preparation and submission of registrations, discharge prevention, containment and countermeasure plans, and discharge cleanup and removal plans.

#### Case Notes

Regulatory requirement for submission of discharge cleanup and recovery plan is at odds with Spill Compensation and Control Act where overlapping federal statutes or regulations also require submission of such a plan. *GATX Terminals Corp. v. Dept. of Environmental Protection*, 173 N.J.Super. 531, 414 A.2d 980 (App.Div.1980), reversed 86 N.J. 46, 429 A.2d 355 (1981).

Discharge cleanup and removal (DCR) plan pertains to procedures to be followed in the event of a discharge, as well as equipment available to contain and remove discharged hazardous substances. *GATX Terminals Corp. v. Dept. of Environmental Protection*, 173 N.J.Super. 531, 414 A.2d 980 (App.Div.1980), reversed 86 N.J. 46, 429 A.2d 355 (1981).

### 7:1E-4.2 Registration of discharge cleanup organizations

(a) Discharge cleanup and removal organizations, other than owners or operators of major facilities covered by DCR plans who intend to clean up only discharges from their own facilities, shall submit in writing to the Department on or before January 1 of each year the following information:

1. The name of the organization;
2. The form of the organization, such as corporation, cooperative or association;
3. Name(s) of executive officer(s);
4. The mailing address;
5. The address, telephone number, and name of the manager of each office maintained by the organization;
6. The name and address of the registered agent of the organization, if applicable;
7. A list of the containment and removal equipment owned, leased, contracted or otherwise available for immediate response by the organization, including, but not limited to, vehicles, vessels, pumps, skimmers, booms, chemicals, sorbents, hand tools and communication devices, and the location(s) of such equipment;
8. Names of the trained personnel who are available to operate such equipment and a brief description of their qualifications;
9. Areas of the State where the organization will respond to discharges;
10. Hours during which the organization will be available to respond to discharges. If other than around-the-clock, the organization shall supply the Department with at least two telephone numbers by which the organization can be reached during off-hours in an emergency;
11. A brief record of the organization's response history in New Jersey and other states for the previous two years, indicating the magnitude of discharges and the types of hazardous substances handled; and
12. Any certifications required pursuant to N.J.A.C. 7:1E-4.11.

(b) One copy of the information required by (a) above shall be sent to the Department at:

Bureau of Discharge Prevention  
New Jersey Department of Environmental Protection  
CN 424  
Trenton, New Jersey 08625-0424  
Attention: Discharge Cleanup Organization Submission

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### Case Notes

Comparison of regulation to similar federal regulations as basis for guidance in determining authority of Department of Environmental Protection. *GATX Terminals Corp. v. Dept. of Environmental Protection*, 86 N.J. 46, 429 A.2d 355 (1981).

### 7:1E-4.3 Discharge prevention, containment and countermeasure plans

(a) The owner or operator of a major facility shall prepare a DPCC plan demonstrating compliance with the standards in N.J.A.C. 7:1E-2, and shall appoint a response coordinator for each site who shall be responsible for insuring compliance with the DPCC plan, the Act, and this chapter. The response coordinator shall be responsible for submission of all reports required by this chapter to the Department.

(b) The DPCC plan shall contain the following general information:

1. The name, telephone number and location of the facility including street and mailing address, county, municipality, tax lot and block number, and the coordinate centroid in New Jersey State Plane;
2. The name(s), telephone number(s) and business address(es) of the owner or operator of the facility;
3. The name and business address of the owner's or operator's registered agent, if applicable;
4. A general site plan, which accurately reflects the current facility, showing the location of storage tanks, drum storage areas, process buildings, transfer areas, and any other structures in or on which hazardous substances are stored or handled or which are used for the prevention of discharges, and all facility fencing and gates. It shall be drawn to a scale in the range of one inch equals 30 feet to one inch equals 200 feet, such that it is sufficient to delineate all items to be mapped and is appropriate to the size of the facility, shall meet the standards contained in Appendix C, and shall be certified by a licensed land surveyor;
5. A drainage and land use map, in the format prescribed in N.J.A.C. 7:1E-4.10, which accurately reflects the current facility and the surrounding area, including the direction of surface water runoff from the site, location of all major sewers, storm sewers and all watercourses into which the surface water runoff from the

facility drains and the location of supply or monitoring wells;

6. Topographical maps, in the format prescribed in N.J.A.C. 7:1E-4.10, covering all surrounding area which could be affected by a discharge from the facility, including environmentally sensitive areas; and

7. The anticipated date on which the facility will become operational, if the facility is a new one.

(c) If the facility has experienced two or more discharge events within the previous 12 months, the DPCC plan shall include a description of each such event, corrective action taken, and plans for preventing recurrences.

(d) The DPCC plan shall include, at a minimum, the following technical information:

1. A description of all storage areas, addressing all standards under N.J.A.C. 7:1E-2.2, including, but not limited to, overfill protection measures and the schedule or criteria for scheduling integrity testing and maintenance or reconstruction. This description must also include the size and contents of storage tanks, drum storage areas, and all other storage areas;
2. A description of any tank car or tank truck loading/unloading area, pursuant to N.J.A.C. 7:1E-2.3;
3. A description of the marking of in-facility pipes and procedures for minimizing the chance of a vehicular collision with overhead pipes, pursuant to N.J.A.C. 7:1E-2.4;
4. A description of all secondary containment or diversion systems, including their capacity and materials of construction, pursuant to N.J.A.C. 7:1E-2.6;
5. A description of marine transfer areas, including materials transferred, booming operations pursuant to N.J.A.C. 7:1E-2.7, and the fixed and portable lighting in use in marine transfer areas pursuant to N.J.A.C. 7:1E-2.8;
6. A description of any flood hazard areas within the facility's boundaries, and any measures implemented to protect hazardous substances from flood waters, pursuant to N.J.A.C. 7:1E-2.9;
7. A description of all leak detection or monitoring procedures, pursuant to N.J.A.C. 7:1E-2.10;
8. An outline of the housekeeping and maintenance program, pursuant to N.J.A.C. 7:1E-2.11;
9. An outline of the personnel training program and procedures for insuring proper training of contractors, including a catalog list of all pertinent documents, pursuant to N.J.A.C. 7:1E-2.12;
10. A description of the physical security measures at the facility, pursuant to N.J.A.C. 7:1E-2.13;
11. A catalog list of all standard operating procedures that have been written pursuant to N.J.A.C. 7:1E-2.14; and

12. A description of the recordkeeping system employed by the facility, pursuant to N.J.A.C. 7:1E-2.15.

(e) The DPCC plan shall include a schedule, to be approved by the Department, for upgrading equipment or portions of the facility to meet the requirements of N.J.A.C. 7:1E-2, excluding N.J.A.C. 7:1E-2.2(a)4 and 2.2(a)5.

(f) The owner or operator shall maintain and make available for Department review, at either the facility or the Department's offices at the discretion of the Department, the following updated documentation including a catalog list of all such documents showing title, identification number and date of issue:

1. Facility inventory of hazardous substances;
2. Updated process flow and piping and instrumentation diagrams;
3. Standard operating procedures;
4. Facility emergency response plan;
5. Job classifications and job descriptions; and
6. Housekeeping and maintenance program procedures and records.

Amended by R.1996 d.252, effective June 3, 1996.

See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### 7:1E-4.4 Discharge cleanup and removal plan

(a) The owner or operator of a major facility shall prepare and implement a DCR plan containing, at a minimum, the following information:

1. A summary of the action plan used in responding to, and minimizing health and environmental dangers from, fires, explosions, or discharges of hazardous substances, including the deployment of personnel and equipment, the chain of command for an emergency response action and notification procedures, pursuant to N.J.A.C. 7:1E-5. The action plan shall provide for annual emergency response drills to determine the currency and adequacy of, and personnel familiarity with, the emergency response action plan. When possible, this annual drill can be combined with other required emergency response drills;

2. A list of containment and removal equipment and materials to which the facility has access through ownership, contract or other means, including, but not limited to, vehicles, vessels, pumps, skimmers, booms, chemicals, and communications devices. If access to equipment is by contract with or membership in a discharge cleanup organization which has filed information with the Department pursuant to N.J.A.C. 7:1E-4.2, it is sufficient to supply the name of the organization in lieu of an equipment list. A copy of all current contracts or agreements between the owner or operator and a discharge cleanup organization for emergency response service shall be maintained at the facility or with the facility's registered agent, as appropriate, and shall be available to the Department for review upon request;

3. A list of the trained personnel who are available to operate such equipment and a brief description of their qualifications. If personnel to be used for this purpose are employees of a discharge cleanup organization which has filed information with the Department pursuant to N.J.A.C. 7:1E-4.2, it is sufficient to supply the name of the organization in lieu of a personnel list. In lieu of supplying a list of names, the owner or operator may supply a list of job titles of employees who will be assigned to operate containment and removal equipment, and a statement of the minimum qualifications that will be required of each employee so assigned;

4. The name, title and 24-hour business telephone number of the facility's response coordinator or other person authorized to hire contractors and release funds for discharge response, containment, cleanup and removal. A response coordinator or alternate shall be available at all times;

5. A plan identifying priorities for the off-site deployment of personnel and equipment to protect residential, environmentally sensitive, or other areas from a discharge based on use, seasonal sensitivity, or other relevant factors;

6. An environmentally sensitive areas protection plan, pursuant to N.J.A.C. 7:1E-4.11, certified by a marine biologist or aquatic biologist or ecologist or freshwater equivalent and ornithologist acceptable to the Department, that shall:

- i. Identify all environmentally sensitive areas that could be affected by a discharge from the facility. The mapping required by N.J.A.C. 7:1E-4.3(b)6 may serve as this identification;
- ii. Identify the seasonal sensitivity of the areas;
- iii. Provide for an environmental assessment of the impact of any discharge on the identified areas; and
- iv. Provide for the protection from, and mitigation of, any potentially adverse impact on the identified areas in the event of a discharge;

7. Procedures for determining the recycling or disposal options for hazardous substances or contaminated soil, debris, and so forth, gathered during cleanup and removal operations;

8. A copy of an agreement with the local emergency planning committee or committees that coordinates the emergency responses of the parties to the agreement; and

9. A copy of all financial responsibility documents required pursuant to N.J.A.C. 7:1E-4.5 in accordance with N.J.A.C. 7:1E-4.5(e) or Appendix B.

(b) Each major facility shall have available to it, by ownership or by arrangement with a discharge cleanup organization which is registered with the Department pursuant to N.J.A.C. 7:1E-4.2, adequate equipment and personnel to clean up any discharge that occurs at the facility.

#### Case Notes

Regulation provides for preconstruction review of major facilities. *GATX Terminals Corp. v. Dept. of Environmental Protection*, 173 N.J.Super. 531, 414 A.2d 980 (App.Div.1980), reversed 86 N.J. 46, 429 A.2d 355 (1981).

#### 7:1E-4.5 Financial responsibility

(a) The owner or operator of a major facility shall demonstrate financial responsibility for cleanup and removal activities, and for the removal of any abandoned structure owned or operated, as the case may be, by the owner or operator.

(b) The owner or operator of a major facility shall demonstrate financial responsibility in the minimum amount of \$1 million per occurrence and \$2 million annual aggregate; provided, however, that if the owner or operator establishes to the satisfaction of the Department that a lesser amount will be sufficient to protect the environment and public health, safety and welfare, the Department may accept evidence of financial responsibility in such lesser amount. In determining the sufficiency of the amount of financial responsibility, the Department may consider factors including, without limitation, the nature and quantity of the hazardous substances which may be present at the facility, and the proximity and nature of environmentally sensitive areas located near the facility.

(c) The required per occurrence and annual aggregate coverage amounts do not in any way limit the liability of the owner or operator.

(d) Financial responsibility may be established by any one, or by any combination, of the following mechanisms:

1. Financial test of self-insurance;
2. Guarantee;
3. Insurance or risk retention group coverage;
4. Surety bond; or
5. Letter of credit.

(e) The owner or operator of any major facility which demonstrates financial responsibility pursuant to the requirements of the Federal Oil Pollution Act of 1990, P.L. 101-380, shall be deemed to have demonstrated financial responsibility in accordance with this chapter and the Act.

(f) An owner or operator may use self-insurance in combination with a guarantee only if, for the purposes of meeting the requirements of the financial test under this rule, the financial statements of the owner or operator are

not consolidated with the financial statements of the guarantor.

(g) To pass the financial test of self-insurance, the owner or operator or guarantor must meet the criteria of (g)1 or 2 below based on the year-end financial statements of the latest completed fiscal year and maintain onsite a letter signed by the chief financial officer worded as specified in Appendix B, incorporated herein by reference. This letter shall be updated within 120 days of the close of each financial reporting year. In addition:

1. The owner or operator or guarantor must have a tangible net worth of at least \$10 million, and the owner or operator or guarantor must:

i. Have a tangible net worth of at least 10 times the required aggregate amount in (b) above plus any other liability coverage for which the owner or operator is using the test to demonstrate financial responsibility to the State or EPA;

ii. Either file financial statements annually with the U.S. Securities and Exchange Commission, the Energy Information Administration, or the Rural Electrification Administration; or report annually the firm's tangible net worth to Dun and Bradstreet, and Dun and Bradstreet must have assigned the firm a financial strength rating of 4A or 5A; and

iii. Have year-end financial statements which do not include an adverse auditor's opinion, a disclaimer of opinion, or a "going concern" qualification; or

2. The owner or operator or guarantor must have a bond rating of AAA, AA, A or BBB from Standard and Poor's, or Aaa, Aa, A or Baa from Moody's, or net working capital of at least six times the required amount, and the owner or operator, or the guarantor, must have:

i. A tangible net worth of at least six times the applicable aggregate amount in (b) above;

ii. U.S. assets that are at least 90 percent of total assets or at least six times the required aggregate amount; and

iii. Fiscal year-end financial statements filed with U.S. Securities and Exchange Commission, Energy Information Administration, or Rural Electrification Administration, or examined by a certified public accountant accompanied by the accountant's report of the examination.

(h) If an owner or operator or guarantor using the financial test of self-insurance finds that he or she no longer meets the requirements of the financial test based on the year-end financial statements, the owner or operator must obtain alternative coverage within 150 days of the end of the year for which financial statements have been prepared.

(i) The Department may require reports of financial condition at any time from the owner or operator, or guarantor. If the Department finds, on the basis of such reports or other information, that the owner or operator, or guarantor, no longer meets the financial test requirements of (g) above, the owner or operator must obtain alternate coverage within 30 days after notification of such a finding.

(j) If the owner or operator fails to obtain alternate coverage within 150 days of finding that he or she no longer meets the requirements of the financial test based on the year-end financial statements, or within 30 days of notification by the Department that he or she no longer meets the requirements of the financial test, the owner or operator must notify the Department of such failure within 10 days.

(k) To demonstrate financial responsibility through a guarantee:

1. Within 120 days of the close of each financial reporting year, the guarantor must demonstrate that it meets the financial test criteria set forth in (g) above by completing the letter from the chief financial officer as specified in Appendix B and must deliver the letter to the owner or operator and the Department. If the guarantor fails to meet the requirements of (g) above, within 120 days of the end of that financial reporting year the guarantor shall send by certified mail, before cancellation or nonrenewal of the guarantee, notice to the owner or operator and the Department. If the Department notifies the guarantor that he or she no longer meets the requirements of (g) above, the guarantor must notify the owner or operator within 10 days of receiving such notification from the Department. In both cases, the guarantee will terminate no less than 120 days after the date the owner or operator receives the notification or 120 days after the date the Department receives the notification, whichever is later, as evidenced by the return receipt. The owner or operator must obtain alternate coverage within 30 days; and

2. The guarantee must be worded as specified in Appendix B, and a copy of the guarantee maintained at the facility at all times.

(l) To demonstrate financial responsibility through liability insurance:

1. Such insurance must be obtained from a qualified insurer or risk retention group. It may be in the form of a separate insurance policy or an endorsement to an existing insurance policy;

2. An existing insurance policy must be amended by an endorsement worded as specified in Appendix B and a separate insurance policy must be evidenced by a certificate of insurance worded as specified in Appendix B. A copy of this endorsement or certificate must be maintained at the facility at all times;

3. Cancellation or any other termination of the liability insurance by the insurer or group, except for nonpayment of premium or material misrepresentation by the insured, will be effective only upon written notice and only after the expiration of 60 days after the date on which the insured receives the written notice or 60 days after the date on which the Department receives the written notice, whichever is later. Cancellation for nonpayment of premium or material misrepresentation by the insured will be effective only upon written notice and only after the expiration of a minimum of 10 days after the date on which the insured receives the written notice or 10 days after the date on which the Department receives the written notice, whichever is later; and

4. Within 60 days of receipt of a notice of cancellation or other termination, the owner or operator shall provide alternative financial assurance as specified in this section.

(m) To demonstrate financial responsibility through a surety bond:

1. The surety company issuing the bond must be among those listed as acceptable sureties on Federal bonds in the latest Circular 570 of the U.S. Department of the Treasury;

2. The surety bond must be worded as specified in Appendix B, and a copy of the surety bond maintained at the facility at all times;

3. Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. In all cases, the surety's liability is limited to the per-occurrence and annual aggregate sums;

4. The owner or operator who uses a surety bond to meet the requirements of (a) above must establish a standby trust fund when the surety bond is acquired. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or New Jersey agency. Under the terms of the bond, all amounts paid by the surety under the bond will be deposited directly into the standby trust fund in accordance with instructions from the Department;

5. The surety(ies) may cancel the bond by sending written notice of cancellation by certified mail to the principal and the Department, provided, however, that the cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the principal or the date of receipt of the notice of cancellation by the Department, whichever is later, as evidenced by the return receipt; and

6. Within 60 days of receipt of a notice of cancellation or other termination, the owner or operator shall provide alternative financial assurance as specified in this section.



(n) To demonstrate financial responsibility through a letter of credit:

1. The issuing agency must be an entity that has the authority to issue letters of credit in the State and whose letter-of-credit operations are regulated and examined by a State agency;

2. The letter of credit must be worded as specified in Appendix B, and a copy of the letter of credit maintained at the facility at all times;

3. The owner or operator who uses a letter of credit to meet the requirements of (a) above must establish a standby trust fund when the letter of credit is acquired. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or New Jersey agency. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Department will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Department;

4. The letter of credit must be irrevocable with a term specified by the issuing institution, and must provide that credit be automatically renewed for the same term as the original term, unless, at least 120 days before the current expiration date, the issuing institution notifies the owner or operator and the Department by certified mail of its decision not to renew the letter of credit. Under the terms of the letter of credit, the 120 days will begin on the date when the owner or operator receives the notice or on the date when the Department receives the notice, whichever is later, as evidenced by the return receipt; and

5. Within 60 days of receipt of a notice of cancellation or other termination, the owner or operator shall provide alternative financial assurance as specified in this section.

(o) Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code:

1. Naming an owner or operator as debtor, the owner or operator shall notify the Department by certified mail of such commencement; or

2. Naming the provider of financial assurance as debtor, the provider shall notify the owner or operator by certified mail of such commencement, and the owner or operator shall then notify the Department.

(p) An owner or operator will be deemed to be without the required demonstration of financial responsibility in the event of commencement of bankruptcy or other incapacity of his or her provider of financial assurance. Within 30 days after receiving notice of such an event, the owner or operator shall submit to the Department an alternate demonstration of financial responsibility.

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

Deleted provisions relating to operators unable to demonstrate financial responsibility and to authority to establish alternate minimum amounts of financial responsibility.

#### Case Notes

Spill Act provision allowing injured person to bring claim directly against "the bond, the insurer, or any other person providing evidence of financial responsibility" did not authorize direct action by injured party against insurer. *Caldwell Trucking PRP Group v. Spaulding Composites, Co., Inc.*, D.N.J. 1995, 890 F. Supp. 1247.

Portion of regulation requiring a description of a facility's approach to compliance with subchapter standards invalid as to those standards involving design and construction of major facilities. *GATX Terminals Corp. v. Dept. of Environmental Protection*, 173 N.J.Super. 531, 414 A.2d 980 (App.Div.1980), reversed 86 N.J. 46, 429 A.2d 355 (1981).

#### 7:1E-4.6 Preparation and submission of plans

(a) The owner or operator of a major facility shall prepare a DPCC plan and a DCR plan in accordance with N.J.A.C. 7:1E-4.3 and 4.4. The DPCC and DCR plans shall be prepared and submitted as a single document.

(b) The owner or operator of an existing major facility shall submit a DPCC plan and a DCR plan, certified pursuant to N.J.A.C. 7:1E-4.11, to the Department at the address in (i) below. Such plans shall be submitted no later than the following dates:

1. By February 1, 1992, all facilities with a storage capacity for hazardous substances of all kinds of at least 300,000 gallons, but less than one million gallons;

2. By August 1, 1992, all facilities with a storage capacity for hazardous substances of all kinds of at least one million gallons, but less than four million gallons;

3. By February 1, 1993, all facilities with a storage capacity for hazardous substances of all kinds of four million gallons or greater;

4. By August 1, 1993, all facilities with a storage capacity for hazardous substances other than petroleum or petroleum products of at least 80,000 gallons, but less than 200,000 gallons, or for hazardous substance of all kinds of at least 200,000 gallons, but less than 300,000 gallons;

5. By February 1, 1994, all facilities with a storage capacity for hazardous substances other than petroleum or petroleum products of at least 40,000 gallons, but less than 80,000 gallons; and

6. By August 1, 1994, all facilities with a storage capacity for hazardous substances other than petroleum and petroleum products of at least 20,000 gallons, but less than 40,000 gallons.

(c) Any change in an approved DPCC plan or DCR plan necessitated by amendments to this chapter shall be incorporated into the plan when the plan is renewed pursuant to N.J.A.C. 7:1E-4.9(e).

(d) General site plans, drainage and land use maps and topographical maps delineating environmentally sensitive areas shall be revised to meet the standards contained in Appendix C only when there is a change in the information required to be depicted pursuant to N.J.A.C. 7:1E-4.3(b)4, 5 or 6.

(e) The owner or operator of a new major facility shall submit a DPCC plan and a DCR plan, certified pursuant to N.J.A.C. 7:1E-4.11, to the Department at least 180 days prior to the anticipated operational date of the facility, and shall implement the approved plans prior to operating the facility.

(f) If plans call for facilities, procedures, methods or equipment not yet fully operational, these items shall be listed separately and a schedule for installation and operational status shall be provided.

(g) Within 60 calendar days of receipt of a DPCC and a DCR plan, the Department shall notify the owner or operator in writing as to whether all information required by (a) above to begin technical review of the plans has been submitted. A list of additional information required will be included if the plans are deemed incomplete.

(h) Unless time is extended by the Department, such additional information as outlined in this subchapter as the Department may require shall be submitted within 30 days of receipt of the Department's request. If additional information requested by the Department is not submitted within the 30-day period, the Department may deny approval of the plan without prejudice to resubmission.

(i) One copy of a DPCC or DCR plan, which must include an original certification pursuant to N.J.A.C. 7:1E-4.11, shall be submitted to the Department for approval. Within 30 days of receipt of approval pursuant to N.J.A.C. 7:1E-4.7, a second copy of the approved DPCC or DCR plan shall be submitted to the Department. Copies shall be sent to:

Bureau of Discharge Prevention  
New Jersey Department of Environmental Protection  
CN 424  
Trenton, New Jersey 08625-0424  
Attention: Plan Submittal

Petition for Rulemaking: Seeking to extend deadline for submitting maps.

See: 24 N.J.R. 1122(d).

Amended by R.1996 d.252, effective June 3, 1996.

See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### Case Notes

While new major facilities must meet the standards of the discharge prevention regulations, existing facilities have a reasonable time to meet the standards. *GATX Terminals Corp. v. Dept. of Environmental Protection*, 86 N.J. 46, 429 A.2d 355 (1981).

#### 7:1E-4.7 Approval and conditional approval of plans

(a) The Department shall act to approve or deny approval of a complete submission of a DPCC or DCR plan, pursuant to N.J.A.C. 7:1E-4.6, within 180 days of receipt, or no later than the date on which the new major facility is issued treatment works approvals pursuant to N.J.A.C. 7:14A-22 which are required as conditions precedent to lawful operation of the facility, whichever is longer.

(b) If the Department finds a plan to be incomplete or denies approval of a plan, the owner or operator shall have 30 days within which to submit an acceptable plan, unless the Department extends the time for good cause shown.

(c) The Department may conditionally approve a plan if the maps required pursuant to N.J.A.C. 7:1E-4.3(b)5 or 6 are incomplete or are not in the format prescribed by N.J.A.C. 7:1E-4.10. The Department shall grant such conditional approval if the Department determines that:

1. The plan otherwise satisfies all of the requirements of this subchapter; and
2. The owner or operator is making a good faith effort to provide complete, acceptable maps.

(d) The conditional approval under (c) above shall set forth a date on which the conditional approval will expire unless the owner or operator has provided maps which satisfy the requirements of N.J.A.C. 7:1E-4.10.

(e) The owner or operator shall demonstrate financial responsibility pursuant to N.J.A.C. 7:1E-4.5 by the time the Department acts to deny or approve a DPCC or DCR plan pursuant to (a) above. If the owner or operator demonstrates to the satisfaction of the Department that none of the methods of financial responsibility set forth in N.J.A.C. 7:1E-4.5 is practicable to him or her, and that a good faith effort has been made to secure financial responsibility in the full aggregate amount, the Department shall:

1. Conditionally approve the plan; or
2. Establish an alternate minimum amount of financial responsibility pursuant to N.J.A.C. 7:1E-4.5(b).

(f) A conditional approval under (e) above shall set forth a date on which the conditional approval shall expire unless the owner or operator has demonstrated financial responsibility in compliance with the requirements of N.J.A.C. 7:1E-4.5.

(g) Implementation of the DPCC and DCR plans shall begin immediately upon receipt of the Department's approval.

(h) The Department may inspect major facilities prior to approving DPCC or DCR plans and at reasonable intervals thereafter in order to ascertain compliance with the plans.

(i) The major facility shall keep a copy of the approved or conditionally approved plan onsite at all times.

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### Case Notes

Comparison of regulation to similar federal regulations as basis for guidance in determining authority of Department of Environmental Protection. *GATX Terminals Corp. v. Dept. of Environmental Protection*, 86 N.J. 46, 429 A.2d 355 (1981).

#### 7:1E-4.8 Denial or revocation of approval of DPCC or DCR plans or amendments

(a) The Department shall state in writing its reasons for denying or revoking approval of any DPCC or DCR plans or amendments thereto.

(b) The Department may revoke its approval of a DPCC or DCR plan if the owner or operator fails to comply with an approved schedule for bringing the facility's plan into compliance with the requirements of these rules, or submits to the Department false or willfully misleading information.

(c) The owner or operator of a major facility who is aggrieved by any decision of the Department to deny or revoke approval of a DPCC or DCR plan or amendment thereto has the right to a hearing before the Department, pursuant to the procedure outlined in N.J.A.C. 7:1E-6.

#### 7:1E-4.9 Amendment of plans by owners or operators

(a) Written notice of proposed new construction or installation, substantial modification or replacement of any aboveground storage tank, other aboveground enclosed storage space, any appurtenant structures, or leak detection or other monitoring, prevention, or safety systems or devices shall be provided to the Department at least 60 days prior to the commencement of construction, installation or modification. This provision does not apply to construction, installation or modification contained in a schedule for upgrading in an approved DPCC plan.

(b) Within 30 days of any change, the owner or operator of a major facility having an approved DPCC or DCR plan shall report to the Department any change in facility design, construction, operation or maintenance which will materially affect the facility's potential for discharges of hazardous substances or the substance of existing plans. The owner or operator shall amend the DPCC or DCR plan to reflect such changes, and shall certify the amendments pursuant to N.J.A.C. 7:1E-4.11, prior to submission to the Department for approval.

(c) The Department shall act to approve or deny approval of proposed amendments within 60 days.

(d) Amendments to DPCC or DCR plans shall be implemented promptly upon approval by the Department.

(e) Notwithstanding compliance with (a) above, at least once every three years following approval or conditional approval of the DPCC and DCR plans, the owner or operator shall renew the DPCC and DCR plans. The renewal shall consist of revised plans or a certification that the existing plans on file with the Department are current. Renewals shall be accompanied by a summary of leaks and discharges at the facility since the plan approval, conditional approval, or renewal. A revised plan may be required at the time of renewal so as to incorporate into the plan all amendments adopted since the approval, conditional approval, or last renewal. All renewals shall be certified pursuant to N.J.A.C. 7:1E-4.11. Any DPCC or DCR plan which is not renewed within three years of the date of approval, conditional approval, or last renewal, shall be considered expired.

#### 7:1E-4.10 Mapping criteria

(a) Drainage and land use, and topographical maps delineating environmentally sensitive areas, required pursuant to N.J.A.C. 7:1E-4.3(b)5 and 6, shall meet the following standards:

1. All mapping shall employ current commercially available mylar orthophoto basemaps (quarterquads) or other comparable current basemaps at a scale equal to or larger than 1:12,000, such as 1:9,600.

2. Mapped information shall meet the standards contained in Appendix C.

(b) Drainage and land use maps, required pursuant to N.J.A.C. 7:1E-4.3(b)5, shall:

1. Include maps for the land area within 1,000 feet from the major facility's boundary. This boundary includes all lands owned or used by the owner or operator at a given location. The following categories of land use shall be included:

- i. Residential;
- ii. Transportation/communication/utilities;
- iii. Industrial and commercial complexes;
- iv. Industrial;
- v. Recreational land and parks;
- vi. Schools;
- vii. Hospitals and nursing care facilities;
- viii. Other urban lands not specified in (b)i through vii above;
- ix. River channels;
- x. Lakes and ponds;
- xi. Reservoirs;
- xii. Bays and estuaries;
- xiii. Cranberry bogs;

- xiv. Coastal wetlands;
- xv. Interior wetlands;
- xvi. Agricultural land;
- xvii. Beaches;
- xviii. Extractive mining;
- xix. Other barren or altered lands;
- xx. Deciduous forest;
- xxi. Coniferous forest;
- xxii. Mixed forest; and
- xxiii. Brushland and shrubland;

2. Locate and label all arterial and collector sewers, storm sewers, catchment or containment systems or basins, diversion systems, and watercourses into which surface water run-off from the facility drains; and

3. Locate and label water supply wells and wellhead protection areas which have been delineated by the Department within 1,000 feet from the major facility's boundary, and monitoring wells owned or operated by the owner or operator at the facility.

(c) Topographical maps showing environmentally sensitive areas, required pursuant to N.J.A.C. 7:1E-4.3(b)6, shall:

1. Cover that area in which the major facility is located which is downgradient or topographically lower than the highest land point within the major facility and which could be affected by a discharge as delineated in (c)2 below;

2. Extend to the maximum area of potential impact, taking into account the sizes of the tanks, containers, or vessel compartments utilized by the facility, the loss of secondary containment, consideration of containment measures in addition to secondary containment, the dispersiveness of the hazardous substance, temperature extremes, average rainfall and stream flows, tidal cycles, prevailing winds, and potential threat to the environment. This area shall be the lesser of the following:

- i. The distance and path an uncontrolled discharge would travel in 48 hours, including all floodprone areas around any surface water or wetlands features;
- ii. The distance downstream from the facility at which the concentration of the hazardous substance would fall below EPA's Quality Criteria for Water issued by EPA's Office of Water Regulations and Standards, including all floodprone areas around any surface water or wetlands features; or
- iii. Fifteen miles from the facility boundary, downgradient along the path a discharge would follow, including all floodprone areas around any surface water or wetland features; and

3. Include, at a minimum, the following types of environmentally sensitive areas:

i. Environmentally sensitive areas for which information concerning the existence and location of the area, sufficient to allow for the location of the area on the topographical map, is available from any of the following:

(1) The Department;

(2) Other government agencies and published sources listed by the Department, which lists are available from the Department upon request; or

(3) A review and interpretation of the photo base-map;

ii. Without limiting the generality of the foregoing, the Department has determined that information from the sources listed in (c)3i(1), (2) and (3) above is available for wetlands and wetland transition areas; bay islands and barrier island corridors; dunes; and areas designated as wild, scenic, recreational or developed recreational rivers; and

iii. The environmentally sensitive areas listed in (c)3iii(1) through (4) below:

(1) Of the surface waters listed in N.J.A.C. 7:1E-1.8(a)1, large rivers, medium rivers, streams, creeks, ponds, lakes and canals;

(2) Of the sources of water supply listed in N.J.A.C. 7:1E-1.8(a)2, intakes and wells;

(3) Beaches, as listed in N.J.A.C. 7:1E-1.8(a)4;

(4) Of the breeding areas and migratory stopover areas listed in N.J.A.C. 7:1E-1.8(a)7 and 8, those which are known to the ornithologist who certifies the DCR plan under N.J.A.C. 7:1E-4.11(e).

(d) All maps required by N.J.A.C. 7:1E-4.3(b)4, 5 and 6 shall be submitted in digital and paper copy form. One paper copy shall accompany the initial plan submission for approval. Within 30 days of receipt of approval pursuant to N.J.A.C. 7:1E-4.7, a second paper copy and the digital copy of the approved maps shall be submitted to the Department.

(e) An owner or operator may apply for an exemption from compliance with the mapping criteria set forth above.

1. The application shall be in writing and shall contain the following:

i. A copy of a written estimate of the cost of preparing the required maps in accordance with the criteria set forth in this section; and

ii. An affidavit, signed and sworn to by the person required to provide certifications pursuant to N.J.A.C. 7:1E-4.11(c), stating that the owner or operator is a small business and that incurring the cost of obtaining maps in compliance with this section would substantially impair the owner or operator's ability to continue as a going concern.

2. The owner or operator shall submit such certified financial statements as the Department requests.

3. The Department shall grant the exemption if it determines that the cost of obtaining maps in compliance with this section would substantially impair the owner or operator's ability to continue as a going concern. The grant of the exemption shall set forth other mapping criteria, which the Department determines will satisfactorily serve the purposes of this subchapter.

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### 7:1E-4.11 Certifications

(a) Any person who submits a discharge cleanup organization registration, summary test results, plan, plan amendment or plan renewal, or confirmation report to the Department shall include, as an integral part of the discharge cleanup organization registration, summary test results, plan, plan amendment or plan renewal, or confirmation report, the following certification, signed by the highest ranking individual with overall responsibility for the information contained in the certified documents:

"I certify under penalty of law that the information provided in this document is, to the best of my knowledge, true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fines or imprisonment or both, for submitting false, inaccurate or incomplete information."

(b) In addition to the certification in (a) above, any person who submits a plan, plan amendment, plan renewal or transmission pipeline registration to the Department shall include, as an integral part of the plan, plan amendment, plan renewal or transmission pipeline registration, the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this plan and all attached documents and, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information."

(c) The additional certification in (b) above shall be signed by the ranking official, as follows:

1. For a corporation, a principal executive officer of at least the level of vice president;

2. For a partnership or sole proprietorship, a general partner or the proprietor, respectively;

3. For a municipality, the mayor or other official authorized by the local governing body to bind the municipality;

4. For a county, the county executive or other official authorized by the board of chosen freeholders to bind the county;

5. For the State, the agency head or person designated by the agency head; or

6. For any other public agency, a principal executive officer or other official authorized by the public agency's governing body to bind the public agency.

(d) Notwithstanding the provisions of (b) above, the certification contained in (a) above shall be the only certification required if the individual required in (a) above to sign the certification is the same individual required in (c) above to sign the additional certification.

(e) Any person submitting a DCR plan containing an environmentally sensitive areas protection plan, or submitting an amendment or renewal to the environmentally sensitive areas protection plan, shall include, as an integral part of the plan, plan amendment or plan renewal, a certification, signed by a marine biologist or aquatic biologist or ecologist or freshwater equivalent and an ornithologist stating that the environmentally sensitive areas protection plan identifies those environmentally sensitive areas that could be affected by a discharge from this facility and the seasonal sensitivity of those areas, provides for protection from, and mitigation of, any potentially adverse impact on the identified areas, and for an environmental assessment in the event of a discharge.

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### Case Notes

Comparison of regulation to similar federal regulations as basis for guidance in determining authority of Department of Environmental Protection. *GATX Terminals Corp. v. Dept. of Environmental Protection*, 86 N.J. 46, 429 A.2d 355 (1981).

## SUBCHAPTER 5. DISCHARGE NOTIFICATION, RESPONSE AND REPORTING

### 7:1E-5.1 Scope

This subchapter prescribes the rules of the Department for notification and reporting of discharges of hazardous substances, the reporting of malfunctions of discharge detec-

tion systems, and response to discharges of hazardous substances. The following rules shall govern the procedures for notification of the Department, response to a discharge of a hazardous substance, and follow-up reporting.

#### 7:1E-5.2 Notification of historical discharges

(a) All persons responsible for a discharge who know or suspect that a discharge has occurred prior to January 23, 1980, or who know or suspect that a discharge has occurred between January 23, 1980 and September 12, 1991, that was not required to be reported at that time, and who have not previously reported that discharge shall conduct a diligent inquiry and shall promptly upon completion of the diligent inquiry and discovery of a discharge notify the Department in writing of such discharge at the address given at N.J.A.C. 7:1E-5.8(f).

(b) All persons responsible for a discharge pursuant to (a) above who previously reported a discharge which occurred prior to January 23, 1980, or who know or suspect that a discharge has occurred between January 23, 1980 and September 12, 1991, that was not required to be reported at that time, shall promptly correct or supplement the prior notice to the Department if any of the information in the prior notice is determined to be false, misleading or inaccurate, or if additional relevant information is discovered which has not been previously reported to the Department.

(c) All persons responsible for a discharge who are required to make a notification pursuant to (a) or (b) above and who are subject to an investigation or cleanup action under any State or Federal law, may notify the Department of the discovery of a historical discharge as part of the periodic progress reports required during the investigation or cleanup if the discovery of the historical discharge is coincident with such investigation or cleanup.

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### 7:1E-5.3 Discharge notification

(a) Immediately after a discharge commences, any person or persons responsible for a discharge who knows or reasonably should know of the discharge, shall immediately notify the Department at (609) 292-7172. In the event that this number is inoperable, any person or persons responsible for a discharge shall immediately notify the State Police at (609) 882-2000.

(b) Notification received by the Department pursuant to (a) above within 15 minutes of the time that the person responsible for a discharge knew, or reasonably should have known, of the occurrence of a discharge shall be considered immediate. It shall be presumed that notification received by the Department more than 15 minutes after the person responsible for a discharge knew, or reasonably should have known, of the discharge is not immediate. The person responsible for the discharge may rebut this presumption by satisfying the requirement of N.J.A.C. 7:1E-5.6.

(c) Any notification performed by any person responsible for a discharge pursuant to (a) and (b) above shall include, but not be limited to, the following information.

1. The name, title, affiliation, address and telephone number of the person reporting the discharge;
2. The location of the discharge, with as much specificity as the Department requests, and in any event with sufficient specificity to enable the Department to direct its agents and employees and any other person to the discharge site, including:
  - i. For discharges from sites located on land, the name of the site, the street address, the municipality, and the county;
  - ii. For discharges on, under or into water, the name of the water body, location of the discharge with reference to a fixed point or points, and a description of the area which the discharge may reach.
3. The common name of the hazardous substance(s) discharged;
4. An estimate of the quantity of each hazardous substance discharged, including best estimates if the quantities are unknown;
5. The date and time at which the discharge began, the date and time at which the discharge was discovered, and, if the discharge has ended, the date and time at which it ended;
6. The actions such person proposes to take to contain, clean up and remove the hazardous substance(s) discharged;
7. The name and address of any person responsible for the discharge.

(d) A copy of the requirements in (c) above, printed in a conspicuous format, shall be displayed by the owner or operator of any vessel which is ordinarily docked in this State in a prominent place on the bridge or pilot house of any such vessel, and by the owner or operator or any onshore facility at any transfer areas and the operations center of any such facility.

Administrative correction to (a).  
See: 24 N.J.R. 581(a).

#### Case Notes

Commencing transfer operations of leaking gasoline in severe weather conditions that increased risk of discharge warranted civil administrative penalties. Department of Environmental Protection v. Stolt-Nielsen, 95 N.J.A.R.2d (EPE) 157.

#### 7:1E-5.4 Notification of aircraft discharges

(a) In the case of a discharge of a hazardous substance used as fuel from an aircraft into the airspace over the lands or waters of New Jersey, any person responsible for a discharge shall notify the Department at (609) 292-7172. In the event that this number is inoperable, any person or persons responsible for a discharge shall immediately notify the State Police at (609) 882-2000.



(b) Any person responsible for a discharge who notifies the Department pursuant to (a) above shall report:

1. The person causing the discharge;
2. The amount of hazardous substance discharged;
3. The time the discharge occurred;
4. The location in the aircraft flight path of the discharge;
5. The wind speed and direction; and
6. The area likely to be affected by the discharge.

#### 7:1E-5.5 Notification of malfunctions in discharge detection systems

(a) The owner or operator of a major facility shall immediately notify the Department at (609) 292-7172 of any malfunction of a discharge detection or other discharge monitoring, prevention or safety system or device. In the event that this number is inoperable, any owner or operator of a major facility shall immediately notify the State Police at (609) 882-2000.

(b) Notification received by the Department pursuant to (a) above within 15 minutes of the time that the owner or operator knew, or reasonably should have known, of the occurrence of a malfunction shall be considered immediate. It shall be presumed that notification received by the Department more than 15 minutes after the owner or operator knew, or reasonably should have known, of the malfunction is not immediate. The owner or operator may rebut this presumption by satisfying the requirements of N.J.A.C. 7:1E-5.6.

(c) Within two hours of the initial notification, the owner or operator of a major facility shall notify the Department that one of the following situations exists:

1. The malfunction has been repaired;
2. An alternate discharge detection system has been activated for the equipment utilizing the malfunctioning system; or
3. The equipment protected by the discharge detection system has been taken out of service.

#### 7:1E-5.6 Justification of delay

(a) The Department, at its discretion, may determine that a period of longer than 15 minutes for initiating the notification of the Department of a discharge is immediate if the person responsible for the discharge can show, by clear and convincing evidence, that the notification of the Department was initiated as soon as possible or reasonable and that notification within 15 minutes was impossible or unreasonable because of:

1. Essential immediate response activities;

2. The circumstances under which the discharge occurred;

3. The circumstances under which the discharge was first discovered; or

4. Some other valid cause or reason.

(b) A person who does not initiate the notification of the Department of a discharge within 15 minutes and who desires to establish that the notification was as immediate as reasonably possible under the circumstances in which the discharge occurred, shall submit a sworn affidavit so attesting with the written confirmation report required by N.J.A.C. 7:1E-5.8. This affidavit shall set forth the circumstances of the discharge to establish that the notification of the Department was as immediate as reasonably possible under the circumstances in which the discharge occurred. The affidavit shall be signed by the person or persons required to sign any certifications pursuant to N.J.A.C. 7:1E-4.11, and shall include, but not be limited to, the following information:

1. The address of the facility at which the discharge occurred;

2. The date and time at which the discharge began and the date and time at which it ceased;

3. The name, job title, affiliation, business telephone number and business address of the individual who first discovered the discharge;

4. The date, the time, and the circumstances under which the discharge was first discovered;

5. The reason(s), if any, why the discharge was not immediately discovered;

6. The date and time which the discharge was first reported to the Department;

7. The name, business telephone number, and business address of the individual who first notified the Department of the discharge;

8. Any reason why initiation of notification of the Department within 15 minutes of the onset of the discharge was impossible or unreasonable; and

9. A demonstration that initiation of notification was carried out as soon as possible or reasonable.

#### 7:1E-5.7 Discharge response

(a) Any person responsible for a discharge shall take immediate action to stop the discharge and shall take all necessary and appropriate measures to contain, mitigate, cleanup and remove the discharge, or shall follow the action plan in the facility's approved DCR plan, prepared and implemented in accordance with N.J.A.C. 7:1E-4. All persons shall coordinate such actions with the Department.

(b) No person shall apply chemicals to a discharge without the prior approval of the Department or the Federal on-scene coordinator under the National Contingency Plan pursuant to 40 CFR 300, unless such application is necessary to prevent or mitigate a situation that poses a serious and imminent threat to human life. In any such situation of imminent threat to human life, the owner or operator shall make reasonable efforts to secure the approval of the Department or the Federal on-scene coordinator before applying chemicals. Approval to apply chemicals may be obtained verbally, including by telephone. Application of chemicals pursuant to a DCR plan approved by the Department shall be deemed to have prior approval. Unauthorized use of chemicals shall be regarded as a discharge in violation of N.J.A.C. 7:1E-1.11.

(c) Upon learning that a discharge of a hazardous substance has occurred, the Department may act to contain, mitigate, clean up and remove the discharge, unless it determines that such action will be done properly and expeditiously by the person responsible for the discharge, or by any other authorized person.

(d) The Department, at its discretion, may observe, supervise or participate in any aspect of containment, or cleanup and removal activities. In the exercise of its supervisory power, the Department may order any person to cease cleanup and removal activities and other discharge-related operations if it determines that the person is not capable of properly containing, cleaning up or removing a discharge, or if the Department determines that person is failing to conduct cleanup operations in a proper and expeditious manner.

#### 7:1E-5.8 Confirmation report and recordkeeping

(a) Any owner or operator of a transmission pipeline or of a major facility who has notified the Department of a discharge from a regulated portion of the transmission pipeline or from a regulated portion of the major facility pursuant to N.J.A.C. 7:1E-5.3 shall send to the Department a written confirmation report within 30 days of said notification.

(b) Any person responsible for a discharge who is not the owner or operator of a major facility or transmission pipeline, or who has experienced a discharge from a non-regulated portion of a major facility or transmission pipeline, and who has notified the Department pursuant to N.J.A.C. 7:1E-5.3, shall keep records of the cleanup and removal actions taken in accordance with the requirements of N.J.A.C. 7:26E, Technical Requirements for Site Remediation.

(c) Any person required to submit a confirmation report pursuant to (a) above shall include the following in the confirmation report:

1. The name, address and telephone number of the individual that reported the discharge pursuant to N.J.A.C. 7:1E-5.3;
2. The name, address and telephone number of the individual submitting the confirmation report if different from the individual identified in (c)1 above, and the relationship between said persons, such as employer-employee, or contractor-client;
3. The name, address and telephone number of each owner and operator of the facility at which the discharge occurred, or the vessel or vehicle from which the discharge occurred;
4. The source of the discharge, if known;
5. The location of the discharge, as follows:
  - i. For a discharge from sites located on land, the name of the site, the street address, the tax lot and block, the municipality, the county, any Department or EPA ID numbers of facilities involved, and a digital map or comma-delimited State Plane coordinates identifying the area in which the discharge occurred and the surrounding area and which meets the standards in Appendix C;
  - ii. For discharges on, under or into water, the name of the water body, the latitude and longitude of the place the discharge originated, and a map identifying the areas affected by the discharge;
6. A list of the common name and Chemical Abstract Service number of each of the hazardous substances discharged;
7. A list of the quantities of each hazardous substance discharged, including best estimates if the quantities are unknown;
8. The date and time at which the discharge began, the date and time at which the discharge was discovered, the date and time at which the discharge ended, and the date and time at which the Department was notified pursuant to N.J.A.C. 7:1E-5.3;
9. A description of the measures taken to contain, clean up and remove the discharge, and a summary of costs incurred;
10. Corrective or preventive measures taken or proposed to minimize the possibility of recurrence;
11. The name, addresses and telephone numbers of all entities involved in containment, cleanup or removal of the discharge;
12. A description of samples taken at or around the site of the discharge, whether before, during or after any containment, cleanup or removal. The samples shall be taken and analyzed in accordance with N.J.A.C. 7:26E-2. Records of the results shall be kept on-site and made available for Department review, at either the facility or the Department's offices at the discretion of the Department;

13. A certification stating that financial responsibility demonstrated pursuant to N.J.A.C. 7:1E-4.5 and submitted to the Department pursuant to N.J.A.C. 7:1E-4.4(a)9 is in full force and effect;

14. Information supplementing any information previously provided to the Department if additional relevant information is discovered, or if it is determined that the information previously provided was false, inaccurate or misleading;

15. Any other information concerning the discharge which the Department may request; and

16. A fully executed certification pursuant to N.J.A.C. 7:1E-4.11.

(d) Any person responsible for a discharge shall promptly notify the Department in writing of any additional or corrected information which becomes available after the submission of a confirmation report, within 10 days of the availability of that information. Such information shall reference the date, title and author of the confirmation report which is being supplemented.

(e) Any person required to submit a confirmation report for a discharge at a major facility or transmission pipeline shall submit the confirmation report to:

Bureau of Discharge Prevention  
New Jersey Department of Environmental Protection  
401 East State Street  
CN 424  
Trenton, New Jersey 08625-0424  
Attention: Discharge Confirmation Report

(f) Any person required to submit a written report pursuant to N.J.A.C. 7:1E-5.2, shall submit the report to:

Site Remediation Program  
Discharge Response Element  
New Jersey Department of Environmental Protection  
401 East State Street  
CN 028  
Trenton, New Jersey 08625-0028  
Attention: Discharge Report

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### Case Notes

Commencing transfer operations of leaking gasoline in severe weather conditions that increased risk of discharge warranted civil administrative penalties. Department of Environmental Protection v. Stolt-Nielsen, 95 N.J.A.R.2d (EPE) 157.

#### 7:1E-5.9 Reporting responsibilities of the Department

(a) Upon obtaining any information which leads it to suspect that a discharge has occurred in a municipality's jurisdiction, the Department shall immediately notify orally the contact persons for the governing body of the municipality and the local board of health as specified in (b) below, unless these entities have been notified previously.

(b) The governing body of the municipality and the local board of health shall provide the Department with the name, address and telephone number of a 24 hour contact point and an alternate 24 hour contact point. The governing body of the municipality and the local board of health may change the contact point and alternate contact point upon written notice to the Department. If a contact point and an alternate contact point are not specified, the local police department or local fire department shall be the points designated by the Department to receive notification pursuant to (a) above.

(c) Within 10 days of the initial oral notification required by (a) above, the Department shall issue a letter confirming and, if appropriate, expanding upon that initial oral notification.

(d) The Department shall take appropriate action to verify that a discharge has occurred as suspected, including the authorization of agent(s) or officer(s) of the municipality or local board of health by an appropriate Department official to investigate the site of the suspected discharge. Such investigation shall include conducting visual assessment of the site of the discharge and contacting any persons potentially responsible for the discharge.

(e) The agent(s) or officer(s) of the municipality shall report all findings to the Department.

#### 7:1E-5.10 Discharge reporting requirements of local officials

(a) When any governing body of a municipality or local board of health obtains information which leads it to suspect that a discharge has occurred, the governing body or local board of health shall immediately notify, as specified in (b) below, the Department, unless the Department has already been notified of the discharge.

(b) The governing body or local board of health shall provide the Department with information regarding any discharge pursuant to (a) above in the format specified at N.J.A.C. 7:1E-5.3(a).

(c) The local governing body and the local board of health shall coordinate all responses to the discharge with the Department.

#### 7:1E-5.11 Amendment of plans following a discharge

(a) Following submission of a confirmation report pursuant to N.J.A.C. 7:1E-5.8, the Department may review a

facility's DPCC and DCR plans and may require the owner or operator of the facility to amend the plans if it finds that a plan does not meet the requirements of this chapter or that amendment of the plan is necessary to prevent and contain similar discharges.

(b) Amendments required by the Department shall become part of the DPCC or DCR plan within 30 days after approval by the Department, unless the Department specifies another effective date. The owner or operator shall implement the amendment of the plan as soon as possible, in accordance with a schedule submitted by the owner or operator and approved by the Department.

## SUBCHAPTER 6. CIVIL ADMINISTRATIVE PENALTIES AND REQUESTS FOR ADJUDICATORY HEARINGS

### 7:1E-6.1 Scope

This subchapter shall govern the Department's assessment of civil administrative penalties for violation of any provision of the Act, including any rule, regulation, plan, information request, access request, order or directive promulgated or issued pursuant to the Act. This subchapter shall also govern the procedures for requesting an adjudicatory hearing on a notice of civil administrative penalty assessment, an administrative order, conditions of approval for any plan, or amendment to a plan, or a denial or revocation of approval of a plan or amendment to a plan required under the Act.

### 7:1E-6.2 Applicability

(a) The Department may assess a civil administrative penalty of not more than \$50,000 for any discharge less than 100,000 gallons, not more than \$10,000,000 for any discharge of 100,000 gallons or more, and not more than \$50,000 for each violation of the Act or of any rule, regulation, plan, information request, access request, order or directive promulgated or issued pursuant to the Act.

(b) Each violation of any provision of the Act, or any rule, regulation, plan, information request, access request, order or directive promulgated or issued pursuant thereto shall constitute a separate and distinct offense.

(c) Each day during which a violation continues shall constitute an additional, separate, and distinct offense.

(d) The Department may, in its discretion, treat an offense as a first offense solely for civil administrative penalty determination purposes, if the violator has not committed the same offense in the five years immediately preceding the date of the pending offense.

(e) Neither the assessment of a civil administrative penalty nor the payment of any such civil administrative penalty shall be deemed to affect the availability of any other enforcement provisions provided for by the Act, or any other statute, in connection with the violation for which the assessment is levied.

### 7:1E-6.3 Procedures for issuance of administrative orders and assessment, settlement and payment of civil administrative penalties

(a) In order to assess a civil administrative penalty under the Act, for violation of the Act or any rule, regulation, plan, information request, access request, order or directive promulgated or issued pursuant to the Act, the Department shall, by means of an administrative order or notice of civil administrative penalty assessment, notify the violator by certified mail (return receipt requested) or by personal service. The Department may, in its discretion, assess a civil administrative penalty for more than one offense in a single administrative order or notice of civil administrative penalty assessment or in multiple administrative orders or notices of civil administrative penalty assessment. This Administrative Order or Notice of Civil Administrative Penalty Assessment shall:

1. Identify the section of the Act, rule, plan, request, order or directive violated;
2. Concisely state the facts which constitute the violation;
3. Order such violation to cease;
4. Specify the amount of the civil administrative penalty to be imposed; and
5. Advise the violator of the right to request an adjudicatory hearing pursuant to the procedures in N.J.A.C. 7:1E-6.4.

(b) Payment of the civil administrative penalty is due upon receipt by the violator of the Department's Final Order in a contested case or when a Notice of Civil Administrative Penalty becomes a Final Order, as follows:

1. If no hearing is requested pursuant to the procedures in N.J.A.C. 7:1E-6.4, a Notice of Civil Administrative Penalty Assessment becomes a Final Order on the 21st calendar day following receipt of the Notice of Civil Administrative Penalty Assessment by the violator;
2. If the Department denies the hearing request pursuant to N.J.A.C. 7:1E-6.4(a), a Notice of Civil Administrative Penalty becomes a Final Order and is deemed received on the 21st day following receipt of the Notice of Civil Administrative Penalty Assessment by the violator;
3. If the Department denies the hearing request pursuant to N.J.A.C. 7:1E-6.4(c), a Notice of Civil Administrative Penalty Assessment becomes a Final Order upon receipt by the violator of such denial; or

4. If the Department grants the hearing request, a Notice of Civil Administrative Penalty Assessment becomes a Final Order upon receipt of a Final Order in a contested case.

(c) If a civil administrative penalty is not paid within 30 calendar days of the date of a Final Order, and the penalty is not contested pursuant to N.J.A.C. 7:1E-6.4, or any payment pursuant to a payment schedule entered into with the Department is not made, an interest charge shall accrue on the amount of the penalty from the 30th calendar day that amount was due and owing.

(d) If a civil administrative penalty is appealed pursuant to N.J.A.C. 7:1E-6.4, and the amount of the penalty is upheld, in whole or in part, a rate of interest shall be calculated on that amount as of the 30th calendar day from the date the amount was due and owing under the administrative order.

(e) The rate of interest charged on any late penalty shall be that established by the New Jersey Supreme Court for interest rates on judgments, as set forth in the Rules Governing the Courts of the State of New Jersey.

(f) The Department may assess and recover, by civil administrative order, the costs of any investigation, cleanup or removal, and the reasonable costs of preparing and successfully enforcing a civil administrative penalty. The assessment may be recovered at the same time as a civil administrative penalty, and shall be in addition to the penalty assessment.

(g) Any person who violates a provision of the Act or a Court order issued pursuant thereto, or who fails to pay a civil administrative penalty in full or to agree to a schedule of payments therefor, shall be subject to a civil penalty not to exceed \$50,000 per offense. Any penalty so incurred may be recovered with costs in a summary proceeding pursuant to N.J.S.A. 2A:58-1 et seq. in the Superior Court or a municipal court.

(h) Any conveyance used or intended for use in the willful discharge of a hazardous substance is subject to forfeiture to the State.

(i) The Department may, in its discretion, settle any Civil Administrative Penalty assessed pursuant to N.J.A.C. 7:1E-6.5, 6.6, 6.7 or 6.8 according to the following factors:

1. Mitigating or extenuating circumstances not previously considered in the Notice of Civil Administrative Penalty Assessment pursuant to N.J.A.C. 7:1E-6.8;
2. The timely implementation by the violator of measures leading to compliance not previously considered in the assessment of penalties pursuant to N.J.A.C. 7:1E-6.5 or 6.8;
3. The full payment by the violator of a specified part of the Civil Administrative Penalty assessed if made with-

in a time period established by the Department in an administrative order and provided that the violator waives the right to request an adjudicatory hearing on the Civil Administrative Penalty; or

4. Any other terms or conditions acceptable to the Department not previously considered in the assessment of penalties pursuant to N.J.A.C. 7:1E-6.5, 6.6, 6.7 or 6.8.

Amended by R.1996 d.252, effective June 3, 1996.

See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

#### **7:1E-6.4 Procedures for requesting and conducting adjudicatory hearings**

(a) If the Department does not receive a hearing request within 20 calendar days after receipt by the violator of an administrative order or notice of civil administrative penalty assessment, conditions of approval for any plan, or amendment to a plan, or denial or revocation of approval of any plan or amendment being challenged, the Department shall deny the hearing request.

(b) To request an adjudicatory hearing to contest an administrative order or notice of civil administrative penalty assessment issued pursuant to the Act, or conditions of approval for any plan, or amendment to a plan, or the denial or revocation of approval of any plan or amendment to a plan required pursuant to the Act, the violator shall submit the following information in writing to the Department of the address in (e) below:

1. The name, address, and telephone number of the violator and its authorized representative;
2. The violator's defenses to each of the Department's findings of fact in the administrative order or notice of civil administrative penalty assessment stated in short and plain terms;
3. An admission or denial of each of the Department's findings of fact in the administrative order or notice of civil administrative penalty assessment, or denial or revocation of approval of a plan or amendment to a plan. If the violator is without knowledge or information sufficient to form a belief as to the truth of a finding, the violator shall so state and this shall have the effect of a denial. A denial shall fairly meet the substance of the findings denied. When the violator intends in good faith to deny only a part or a qualification of a finding, the violator shall specify so much of it as is true and material and deny only the remainder. The violator may not generally deny all of the findings, but shall make all denials as specific denials of designated findings. For each finding the violator denies, the violator shall allege the fact or facts as the violator believes it or them to be;
4. Information supporting the request and specific reference to or copies of other written documents relied upon to support the request;



5. An estimate of the time required for the hearing (in days and/or hours); and

6. A request, if necessary, for a barrier-free hearing location for physically disabled persons.

(c) If the violator fails to include all the information required by (b) above, the Department may deny the hearing request.

(d) All adjudicatory hearings shall be conducted in accordance with the Administrative Procedures Act, N.J.S.A. 52:14B-1 et seq., and the Uniform Administrative Procedure Rules, N.J.A.C. 1:1.

(e) Requests for adjudicatory hearings shall be sent to:

Office of Legal Affairs  
New Jersey Department of Environmental Protection  
CN 402  
Trenton, New Jersey 08625-0402  
Attention: Hearing Request

#### **7:1E-6.5 Civil administrative penalty determination—general**

(a) For violations other than those set forth in N.J.A.C. 7:1E-6.6 through 6.8, the Department may assess a civil administrative penalty for offenses described in this subchapter within the following ranges:

1. Up to \$20,000 for the first offense;
2. Up to \$35,000 for the second offense; and
3. Up to \$50,000 for the third and each subsequent offense.

(b) The Department may, in its discretion, set the amount determined pursuant to (a) above to assess a civil administrative penalty on the basis of the following factors:

1. The compliance history of the violator;
2. The number, frequency and severity of the offense(s);
3. The measures taken by the violator to mitigate the effects of the current offense and to prevent future offenses;
4. The deterrent effect of the penalty; or
5. Other specific circumstances of the violator or offense.

#### **7:1E-6.6 Civil administrative penalty for submitting inaccurate or false information**

(a) The Department may assess a civil administrative penalty against each violator who submits inaccurate information or who makes a false statement, representation, or certification in any DPCC plan, DCR plan, registration, record, or other document submitted or maintained, or who falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under the Act or any rule, regulation, plan, order or directive pursuant thereto.

(b) Each time the violator submits inaccurate or false information to the Department shall be an additional, separate, and distinct offense.

(c) The Department shall determine the amount of the civil administrative penalty for offenses described in this section based on the conduct of the violator as follows:

1. For each intentional, deliberate, purposeful, knowing or willful act or omission by the violator, the civil administrative penalty, for each act or omission, is up to \$20,000 for the first offense, up to \$40,000 for the second offense, and up to \$50,000 for the third and each subsequent offense; and

2. For all other conduct, the civil administrative penalty, for each act or omission, is up to \$1,000 for the first offense, up to \$2,000 for the second offense, and up to \$5,000 for the third and each subsequent offense.

#### **7:1E-6.7 Civil administrative penalty for failure to allow lawful entry and inspection**

(a) The Department may assess a civil administrative penalty against each violator who refuses, inhibits or prohibits immediate lawful entry and inspection of any premises, building, vessel or place, except private residences, by an authorized Department representative.

(b) Each day that a violator refuses, inhibits or prohibits immediate lawful entry and inspection of any premises, building, or place, except private residences, by an authorized Department representative, shall be an additional, separate and distinct offense.

(c) The amount of the civil administrative penalty for offenses described in this section is up to \$10,000 for the first offense, up to \$20,000 for the second offense, and up to \$50,000 for the third and each subsequent offense.

#### **7:1E-6.8 Civil administrative penalties for violations of rules adopted pursuant to the Act**

(a) Civil administrative penalties for offenses described in (c)2 and 4 below shall not be assessed until the time allotted under the applicable schedule for upgrading approved by the Department has expired.

(b) Civil administrative penalties for offenses described in (c)2 and 4 below, exclusive of registration requirements, shall apply to major facilities only. All other civil administrative penalties shall apply to all persons.

(c) The Department shall determine the amount of the civil administrative penalty for offenses described in this section on the basis of the provision violated and the frequency of the violation. The number of each of the following paragraphs corresponds to the number of the corresponding subchapter in N.J.A.C. 7:1E.



1. The violations of N.J.A.C. 7:1E-1, General Provisions, and the civil administrative penalties for each violation are as set forth in the following table, unless modified by (d) below. In no case shall the assessed penalty be less than zero or more than the statutory limit.

### Citation

N.J.A.C. 7:1E-1.11(a)

### Base Penalty for each Violation

Gallons	Penalty
>0-9	\$ 500
10-55	\$ 1,000
56-499	\$ 2,000
500-999	\$ 3,000
1,000-4,999	\$ 5,000
5,000-9,999	\$ 7,500
10,000-19,999	\$ 10,000
20,000-29,999	\$ 15,000
30,000-39,999	\$ 20,000
40,000-49,999	\$ 25,000
50,000-59,999	\$ 30,000
60,000-69,999	\$ 35,000
70,000-79,999	\$ 40,000
80,000-89,999	\$ 45,000
90,000-99,999	\$ 50,000
100,000-149,999	\$ 75,000
150,000-199,999	\$ 100,000
200,000-299,999	\$ 200,000
300,000-399,999	\$ 400,000
400,000-499,999	\$ 800,000
500,000-599,999	\$ 1,000,000
600,000-699,999	\$ 2,000,000
700,000-799,999	\$ 3,000,000
800,000-899,999	\$ 4,000,000
900,000-999,999	\$ 5,000,000
1,000,000-1,999,999	\$ 6,000,000
2,000,000-2,999,999	\$ 7,000,000
3,000,000-3,999,999	\$ 8,000,000
4,000,000-4,999,999	\$ 9,000,000

Gallons  
5 million or greater

Penalty  
\$ 10,000,000

The base penalty may be reduced or increased by applying the following factors <sup>1</sup>:

### Cause of Discharge

Intentional or Gross Negligence	—50% increase from base
Accidental	—50% reduction from base
Homeowner	—75% reduction from base

Initiate Response to Discharge (from the time the discharge was detected or should have been detected):

Over 2 hours	—20% increase from base
Within 2 hours	—No change from base
Within 1 hour	—20% reduction from base
Within 15 minutes	—40% reduction from base

### Area of Impact:

Into waters of the State	—30% increase from base
Off the facility but not into waters of the State	—No change from base
Contained on the facility but not into waters of the State	—30% reduction from base

Discharge History (Number of discharges not contained on the facility within the previous 12 months):

Five or more discharges	—100% increase from base
1-4 discharges	—50% increase from base
Zero discharges	—No change from base

<sup>1</sup> The penalty for each violation is calculated by summing the base penalty and the resultant percentage of the base penalty for each of the applicable factors.

2. The violations of N.J.A.C. 7:1E-2, Prevention and Control of Discharges at Major Facilities, and the civil administrative penalty amounts for each violation are as set forth in the following table, unless revised pursuant to (d) below:

Category of Offense <sup>2</sup>	Citation	First Offense	Second Offense	Third or Subsequent Offense
No secondary containment for an above-ground storage tank	2.2(a)1	\$10,000	\$20,000	\$50,000
Failure to surface the base underlying a storage tank with impermeable material	2.2(a)2	\$ 5,000	\$10,000	\$25,000
Failure to equip a pipe with remotely activated or readily accessible valves	2.2(a)3	\$ 2,000	\$ 4,000	\$10,000
Failure to perform initial integrity testing or static head product testing	2.2(a)4			
Size of Tank (gallons)	Penalty assessed on a per tank basis			
2,001-10,000		\$ 250	\$ 500	\$ 1,250
10,001-20,000		\$ 500	\$ 1,000	\$ 2,500
20,001-50,000		\$ 1,250	\$ 2,500	\$ 6,250
50,001-100,000		\$ 2,500	\$ 5,000	\$12,500
100,001-200,000		\$ 5,000	\$10,000	\$25,000
200,001-300,000		\$ 7,500	\$15,000	\$37,500
300,001 and greater		\$10,000	\$20,000	\$50,000
Failure to perform subsequent integrity testing	2.2(a)4	\$ 2,000	\$ 4,000	\$10,000
Penalty assessed on a per tank basis				
Failure to submit summary test results	2.2(a)5	\$ 250	\$ 500	\$ 1,250
Improper design of heating coil system	2.2(c)	\$ 2,000	\$ 4,000	\$10,000
Failure to equip storage tanks with devices capable of detecting overfills and initiating shutdown mechanisms	2.2(d)	\$ 5,000	\$10,000	\$25,000

Category of Offense <sup>2</sup>	Citation	First Offense	Second Offense	Third or Subsequent Offense
Failure to direct overfill lines into appropriate holding areas	2.2(e)	\$10,000	\$20,000	\$50,000
Failure to locate mobile or portable storage tanks in areas protected by secondary containment	2.2(f)	\$ 5,000	\$10,000	\$25,000
Location of mobile or portable storage tanks in areas subject to flooding or washout	2.2(f)	\$10,000	\$20,000	\$50,000
Failure to equip drum storage areas with secondary containment	2.2(g)	\$10,000	\$20,000	\$50,000
Failure to equip a tank car or tank truck loading/unloading area with secondary containment	2.3(a)	\$10,000	\$20,000	\$50,000
Failure to inspect the lowermost drain and all outlets of a tank car or tank truck prior to filling	2.3(b)	\$ 1,000	\$ 2,000	\$ 5,000
Failure to examine for leakage during filling and secure valves on all manifolds of a tank car or tank truck prior to departure	2.3(c)	\$ 1,000	\$ 2,000	\$ 5,000
Failure to provide a physical barrier, brake interlock or similar system in a transfer area	2.3(d)	\$ 5,000	\$10,000	\$25,000
Failure to attend a tank car or tank truck during a transfer	2.3(e)	\$ 5,000	\$10,000	\$25,000
Failure to properly mark in-facility pipes	2.4(a)	\$ 5,000	\$10,000	\$25,000
Failure to double wall or have adequate secondary containment and a leak detention device for new buried in-facility pipes	2.4(b)	\$ 5,000	\$10,000	\$25,000
Failure to equip existing in-facility buried pipe with leak detection devices	2.4(c)	\$ 5,000	\$10,000	\$25,000
Failure to make necessary repairs, upgrades or replacements to exposed in-facility pipe	2.4(d)	\$10,000	\$20,000	\$50,000
Failure to cap, blank-flange or physically remove in-facility pipe removed from service	2.4(e)	\$10,000	\$20,000	\$50,000
Improper design of pipe supports	2.4(f)	\$ 2,000	\$ 4,000	\$10,000
Failure to minimize the chance of vehicular collision with in-facility pipe	2.4(g)	\$ 2,000	\$ 4,000	\$10,000
Failure to provide secondary containment for process areas	2.5(a)	\$10,000	\$20,000	\$50,000
Failure to provide for a hazardous substance which drained into process wastewater lines	2.5(b)	\$ 2,000	\$ 4,000	\$10,000
Inadequate or improper secondary containment	2.6(a), (c)	\$ 5,000	\$10,000	\$25,000
Failure to maintain adequate containment devices	2.6(d)	\$10,000	\$20,000	\$50,000
Failure to deploy or maintain a containment device on standby when required	2.7(b), (c) 2.7(d), (e)	\$10,000	\$20,000	\$50,000
Failure to properly deploy a containment device	2.7(f), (g), (h)	\$ 5,000	\$10,000	\$25,000
Commencement or continuation of transfer operations during unacceptable conditions	2.7(i)	\$15,000	\$30,000	\$50,000
Failure to properly clean up and remove a discharge prior to removing a containment device	2.7(j)	\$20,000	\$40,000	\$50,000
Failure to retrieve a containment device	2.7(k)	\$ 5,000	\$10,000	\$25,000
Improper or inadequate illumination	2.8	\$ 5,000	\$10,000	\$25,000
Failure to protect a hazardous substance from being carried off or discharged into flood waters	2.9	\$10,000	\$20,000	\$50,000
Failure to conduct visual inspections	2.10(a)	\$ 2,000	\$ 4,000	\$10,000
Failure to keep documentation of visual inspections	2.10(b)	\$ 250	\$ 500	\$ 1,250
Failure to implement a groundwater monitoring program	2.10(c)	\$10,000	\$20,000	\$50,000
Failure to keep hazardous substances in suitable containers, or protect them from the elements and the possibility of leakage	2.11(a)	\$10,000	\$20,000	\$50,000
Failure to repair, replace or take out of service any leaking equipment	2.11(b)	\$ 5,000	\$10,000	\$25,000
Failure to clean up a leak of a hazardous substance	2.11(c)	\$ 5,000	\$10,000	\$25,000
Failure to clean up a discharge of a hazardous substance	2.11(c)	\$10,000	\$20,000	\$50,000
Failure to keep adequate quantities of cleanup materials on hand	2.11(d)	\$ 2,000	\$ 4,000	\$10,000
Failure to maintain a supply of safety equipment	2.11(e)	\$ 2,000	\$ 4,000	\$10,000
Failure to maintain secondary containment or diversion systems in good repair	2.11(f)	\$10,000	\$20,000	\$50,000
Failure to remove visibly damaged hoseline	2.11(g)	\$ 5,000	\$10,000	\$25,000
Failure to implement a training program	2.12(a),	\$10,000	\$20,000	\$50,000
Inadequate training program	2.12(b), (c)	\$ 2,000	\$ 4,000	\$10,000
Failure to specify qualifications of trainers	2.12(d)	\$ 1,000	\$ 2,000	\$ 5,000
Failure to keep documentation of all training	2.12(e)	\$ 250	\$ 500	\$ 1,250
Failure to have procedures to ensure training of employees of outside contractors	2.12(f)	\$ 1,000	\$ 2,000	\$ 5,000
Failure to provide adequate security or to follow security procedures	2.13	\$ 5,000	\$10,000	\$25,000
Failure to establish standard operating procedures (SOPs)	2.14(d)	\$ 250	\$ 500	\$ 1,250

Category of Offense <sup>2</sup>	Citation	First Offense	Second Offense	Third or Subsequent Offense
Penalty assessed per SOP				
Failure to make copies of the SOPs or MSDS or fact sheets in all appropriate languages readily available	2.14(a, b, c)	\$ 250	\$ 500	\$ 1,250
Failure to incorporate modifications of procedures into the SOPs prior to implementation	2.14(f)	\$ 250	\$ 500	\$ 1,250
Failure to maintain and make available a current index of SOPs	2.14(g)	\$ 250	\$ 500	\$ 1,250
Failure to maintain required records	2.15	\$ 250	\$ 500	\$ 1,000

3. The violations of N.J.A.C. 7:1E-3, Transmission Pipelines, and the civil administrative penalty amounts for

each violation, are as set forth in the following table, unless modified pursuant to (d) below:

Category of Offense <sup>2</sup>	Citation	First Offense	Second Offense	Third or Subsequent Offense
Failure to register	3.2(a)	\$ 1,000	\$ 2,000	\$ 5,000
Failure to report a change in information	3.2(b)	\$ 100	\$ 200	\$ 500
Failure to conform to 49 CFR 195	3.3	\$ 2,000	\$ 4,000	\$10,000
Failure to submit the required information	3.4	\$ 1,000	\$ 2,000	\$ 5,000

4. The violations of N.J.A.C. 7:1E-4, Plans and Registrations, and the civil administrative penalty amounts for

each violation, are as set forth in the following table, unless modified pursuant to (d) below:

Category of Offense <sup>2</sup>	Citation	First Offense	Second Offense	Third or Subsequent Offense
Failure to register annually	4.2(a)	\$ 1,000	\$ 2,000	\$ 5,000
Failure to appoint a response coordinator	4.3(a)	\$ 1,000	\$ 2,000	\$ 5,000
Failure to maintain on-site and make available any required plans or documentation	4.3(f) 4.7(g)	\$ 1,000	\$ 2,000	\$ 5,000
Failure to have adequate cleanup equipment and personnel available	4.4(b)	\$ 5,000	\$10,000	\$25,000
Failure to demonstrate financial responsibility	4.5(a), (b)	\$ 5,000	\$10,000	\$25,000
Failure to notify of bankruptcy commencement	4.5(o)	\$ 250	\$ 500	\$ 1,000
Failure to submit a DPCC and DCR plan	4.6(a, b)			
DPCC/DCR Plan due by:				
August 1, 1994	4.6(b)6	\$ 2,000	\$ 4,000	\$10,000
February 1, 1994	4.6(b)5	\$ 4,000	\$ 8,000	\$20,000
August 1, 1993	4.6(b)4	\$ 6,000	\$12,000	\$30,000
February 1, 1992	4.6(b)1	\$ 8,000	\$16,000	\$40,000
August 1, 1992	4.6(b)2	\$10,000	\$20,000	\$50,000
February 1, 1993	4.6(b)3	\$12,000	\$24,000	\$50,000
Failure to submit a DPCC and DCR plan for a new facility	4.6(e)	\$ 6,000	\$12,000	\$30,000
Failure to submit information when requested by the Department	4.6(h)	\$ 1,000	\$ 2,000	\$ 5,000
Failure to submit copy of approved plan	4.6(i)	\$ 250	\$ 500	\$ 1,250
Failure to resubmit an acceptable plan	4.7(b)	\$ 5,000	\$10,000	\$25,000
Failure to provide notice of new construction, installation or modification	4.9(a)	\$ 1,000	\$ 4,000	\$ 5,000
Failure to submit an amendment	4.9(b)	\$ 2,000	\$ 4,000	\$10,000
Failure to renew DPCC/DCR plans	4.9(e)	\$ 2,000	\$ 4,000	\$10,000
Failure to submit copy of approved maps	4.10(d)	\$ 250	\$ 500	\$ 1,250
Failure to provide any required certification	4.11	\$ 2,000	\$ 4,000	\$10,000

5. The violations of N.J.A.C. 7:1E-5, Notification, Response and Reporting, and the civil administrative

penalty amounts for each violation, are as set forth in the following table, unless modified pursuant to (d) below:

Category of Offense	Citation	First Offense	Second Offense	Third or Subsequent Offense
Failure to promptly notify the Department of a discharge	5.2(a)	\$ 5,000	\$10,000	\$25,000
Failure to immediately notify the Department of a discharge	5.3(a)	\$ 5,000	\$10,000	\$25,000
Failure to provide all required information upon notification	5.2(b) 5.3(c) 5.4(b)	\$ 250	\$ 500	\$ 1,250
Failure to prominently display notification requirements	5.3(d)	\$ 500	\$ 1,000	\$ 2,500

Category of Offense	Citation	First Offense	Second Offense	Third or Subsequent Offense
Failure to notify the Department of a discharge of aircraft fuel	5.4(a)	\$ 3,000	\$ 6,000	\$15,000
Failure to notify the Department of a malfunction in a discharge detection system	5.5(a)	\$ 2,000	\$ 4,000	\$10,000
Failure to notify the Department of the status of a malfunctioning discharge detection system	5.5(c)	\$ 1,000	\$ 2,000	\$ 5,000
Failure to attempt to stop and contain a discharge or to follow the DCR action plan	5.7(a)	\$20,000	\$40,000	\$50,000
Failure to submit a confirmation report	5.8(a)	\$ 2,000	\$ 4,000	\$10,000
Failure to include all required information in a confirmation report	5.8 (c), (d)	\$ 250	\$ 500	\$ 1,250
Failure to coordinate any remedial action with the Department	5.7(a)	\$ 5,000	\$10,000	\$25,000
Failure to file a requested amendment following a discharge	5.11(a)	\$ 2,000	\$ 4,000	\$10,000

<sup>2</sup> The column headed "Category of Offense" is descriptive in nature and to be used for easy reference only. The rule language cited in the column headed "Citation" shall determine the specific violation.

(d) The Department may modify the amount of a civil administrative penalty under (c) above, based upon any or all of the following:

1. Mitigating or extenuating circumstances;
2. The implementation of prevention measures in addition to those minimally required by applicable statute or rule;
3. The full payment by the violator of a specified part of the civil administrative penalty assessed if made within a time period established by the Department in an administrative order or notice of civil administrative penalty assessment and provided that the violator waives the right to request an adjudicatory hearing on the civil administrative penalty; or
4. Any other circumstances or conditions acceptable to the Department.

Amended by R.1996 d.252, effective June 3, 1996.  
See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

## SUBCHAPTER 7. CONFIDENTIALITY CLAIMS

### Source and Effective Date

R.1992 d.186, effective April 20, 1992.  
See: 23 N.J.R. 2848(a), 24 N.J.R. 1484(a).

### 7:1E-7.1 Procedure for making a claim

(a) Any person required to submit information to the Department under this chapter, or allow the Department to obtain such information, which such person believes in good faith to constitute confidential information, may assert a confidentiality claim by following the procedures set forth in this subchapter.

(b) A claimant shall submit to the Department (at the address provided in N.J.A.C. 7:1E-7.3) a confidential copy and, upon the Department's request, a preliminary public copy of any record containing assertedly confidential information. The preliminary public copy shall carry a notation stating that confidential information has been deleted. The Department may disclose the preliminary public copy to any person, without restriction or limitation.

(c) The claimant shall label the first page of the confidential copy "CONFIDENTIAL COPY." At the top of each page of the confidential copy, which page contains information that the claimant asserts is confidential information, the claimant shall place a boldface heading reading "CONFIDENTIAL." The claimant shall clearly underscore or highlight all information in the confidential copy which the claimant asserts to be confidential, in a manner which shall be clearly visible on photocopies of the confidential copy.

(d) The claimant shall seal the confidential copy in an envelope displaying the word "CONFIDENTIAL" in bold type or stamp on both sides. This envelope shall be enclosed in another envelope for transmittal to the Department. The outer envelope shall bear no markings indicating the confidential nature of the contents.

(e) The claimant shall send the package containing the confidential copy to the Department by certified mail, return receipt requested, or by other means providing a receipt for delivery.

(f) The claimant shall include in the package a written designation of a person to receive notices pursuant to N.J.A.C. 7:1E-7.2.

**7:1E-7.2 Designation by claimant of an addressee for notices and inquiries**

A claimant shall designate a person as the proper addressee of communications from the Department under N.J.A.C. 7:1E-7, 8, 9 and 10. To designate such a person, the claimant shall submit the following information to the Department in writing: the name and address of the claimant; the name, address, and telephone number of the designated person; and a request that all Department inquiries and communications (oral and written), including without limitation the inquiries and notices listed in N.J.A.C. 7:1E-7.3(a), be directed to the designee.

**7:1E-7.3 Correspondence, inquiries and notices**

(a) The Department shall direct all correspondence, inquiries and notices to the person designated by the claimant pursuant to N.J.A.C. 7:1E-7.2, including without limitation the following:

1. Notices requesting substantiation of claims, under N.J.A.C. 7:1E-8.2(a)1ii;
2. Notices of denial of confidentiality claims and proposed disclosure of information, under N.J.A.C. 7:1E-8.5(a)1;
3. Notices concerning shortened comment and/or waiting periods under N.J.A.C. 7:1E-9.3(a);
4. Notices of disclosure under N.J.A.C. 7:1E-9.4; and
5. Notices of proposed use of confidential information in administrative proceedings, under N.J.A.C. 7:1E-9.7.

(b) A claimant shall direct all correspondence, inquiries, notices and submissions concerning confidentiality claims under this chapter to the Department at the following address:

Bureau of Discharge Prevention  
New Jersey Department of Environmental Protection  
CN 027  
Trenton, New Jersey 08625-0027

**SUBCHAPTER 8. CONFIDENTIALITY DETERMINATIONS****Source and Effective Date**

R.1992 d.186, effective April 20, 1992.  
See: 23 N.J.R. 2848(a), 24 N.J.R. 1484(a).

**7:1E-8.1 Time for making confidentiality determinations**

(a) The Department shall make a confidentiality determination:

1. If the Department receives a request, by a person to whom the Department is restricted from disclosing

confidential information pursuant to N.J.A.C. 7:1E-10, to inspect or copy records containing assertedly confidential information which is the subject of a confidentiality claim; or

2. Before taking any action which is inconsistent with requirements for treatment of confidential information set forth in N.J.A.C. 7:1E-10.

(b) The Department may, in its discretion, make a confidentiality determination at any time.

**7:1E-8.2 Notice of initial confidentiality determination, and of requirement to submit substantiation of claim**

(a) If the Department initially determines that any of the assertedly confidential information may be confidential information, the Department shall:

1. Notify each claimant who is known to have asserted a claim applicable to such information, and who has not previously been furnished with notice with regard to the information in question, of the following:

- i. That the Department is in the process of making a confidentiality determination with respect to the claimant's claim;
- ii. That the claimant is required to substantiate the claim as required by N.J.A.C. 7:1E-8.3;
- iii. The address of the office to which the claimant's substantiation must be addressed;
- iv. The time allowed for submission of substantiation, pursuant to N.J.A.C. 7:1E-8.4;
- v. The method for requesting a time extension under N.J.A.C. 7:1E-8.4(b); and
- vi. That a claimant's failure to furnish substantiation within the time allocated in N.J.A.C. 7:1E-8.4 shall operate as a waiver of the claimant's claim.

2. Furnish, to any requester whose request for inspection or copying of the information is pending, notice that:

- i. The information which is the subject of the request may be confidential information;
- ii. The Department must undertake further inquiry before granting or denying the requester's request; and
- iii. After the Department has made a confidentiality determination concerning the information which is the subject of the request, the Department will grant or deny the request.

(b) The Department shall send the notice required by paragraphs (a)1 and 2 above by certified mail, return receipt requested, or by other means providing a receipt for delivery.

(c) If the Department is able to determine whether all of the assertedly confidential information is or is not confidential information, without the need for submission of substantiation under N.J.A.C. 7:1E-8.3, such determination shall have the effect of a final confidentiality determination pursuant to N.J.A.C. 7:1E-8.5. The Department shall provide such notices of the determination as are required by N.J.A.C. 7:1E-8.5.

### 7:1E-8.3 Substantiation of confidentiality claims

(a) If the Department has determined that any assertedly confidential information may be confidential information, and notified the claimant pursuant to N.J.A.C. 7:1E-8.2(a) and (b), the claimant shall substantiate the confidentiality claim by submitting information to the Department in the following areas within the time allotted in N.J.A.C. 7:1E-8.4:

1. Measures taken by the claimant to prevent disclosure of the information to others;
2. The extent to which the information has been disclosed to others, and the precautions taken to prevent further disclosure;
3. If the Department, EPA or any other agency has previously made a confidentiality determination relevant to the pending confidentiality claim, copies of all such confidentiality determinations;
4. A description of any substantial harmful effects which disclosure would have upon the claimant's competitive position, an explanation of why such harmful effects are substantial, and an explanation of the causal relationship between disclosure and such harmful effects;
5. The period of time for which the claimant desires that the Department treat the assertedly confidential information as confidential information; and
6. Any other substantiation which is relevant in establishing that the assertedly confidential information is confidential information.

(b) The claimant may assert a confidentiality claim for any information submitted to the Department by the claimant as part of his or her substantiation pursuant to this section. If the claimant fails to assert a confidentiality claim for such information at the time of submission, the claimant shall be deemed to have waived all such claims with respect to the information.

### 7:1E-8.4 Time for submission of substantiation

(a) The claimant shall submit substantiation within 30 days after the date of the claimant's receipt of the written notice provided under N.J.A.C. 7:1E-8.2(a)1.

(b) The Department may, in its discretion, extend the time allotted for submission of substantiation pursuant to (a) above if, before the expiration of the allotted time, the claimant submits a written request for the extension of such allotted time, provided, however, that except in extraordinary circumstances, the Department shall not approve such an extension of time in connection with a request to inspect or copy assertedly confidential information pursuant to N.J.S.A. 47:1A-1 et seq. without the consent of any person whose request to inspect or copy the allegedly confidential information under N.J.S.A. 47:1A-1 et seq. is pending.

(c) If a claimant fails to submit substantiation within the time allotted pursuant to this section, the claimant shall be deemed to have waived all confidentiality claims with respect to the information for which the substantiation was required.

### 7:1E-8.5 Final confidentiality determination

(a) If, after review of all the information submitted pursuant to N.J.A.C. 7:1E-8.2 and 8.3, the Department determines that the assertedly confidential information is not confidential information, the Department shall take the following actions:

1. The Department shall so notify the claimant by certified mail, return receipt requested. The notice shall state the basis for the determination, that it constitutes final agency action concerning the confidentiality claim, and that the Department shall make the information available to the public on the 14th day following receipt by the claimant of the written notice. The notice shall include a copy of the final public copy to be made available to the public.
2. On or after the 14th day following receipt by the claimant of the written notice required by (a)1 above, the Department shall send written notice of the determination to any requester with a pending request to inspect or copy the information which was the subject of the confidentiality claim. The Department shall send the notice by certified mail, return receipt requested.

(b) If, after review of the substantiation submitted pursuant to N.J.A.C. 7:1E-8.3, the Department determines that the assertedly confidential information is confidential information, the Department shall treat such information as confidential information in accordance with N.J.A.C. 7:1E-10. The Department shall send written notice of the determination to the claimant and to any requester with a pending request to inspect or copy the information which was the subject of the confidentiality claim. The notice shall state the basis for the determination and that it constitutes final agency action. The Department shall send the notice by certified mail, return receipt requested.



**7:1E-8.6 Treatment of information pending confidentiality determination**

The Department shall treat assertedly confidential information as confidential information, until the Department has made a final determination that the assertedly confidential information is not confidential information.

**7:1E-8.7 Availability of information to the public after determination that information is not confidential**

If the Department determines that assertedly confidential information is not confidential information pursuant to N.J.A.C. 7:1E-8.5(a), the Department may disclose such information to any person on the date which is 14 days after the claimant's receipt of the written notice of the confidentiality determination.

**7:1E-8.8 Preparation of final public copy**

After the Department makes a final confidentiality determination that a record contains confidential information, the Department shall prepare a final public copy of the record based upon the final confidentiality determination. The Department may disclose the final public copy to any person, without restriction or limitation.

**7:1E-8.9 Class confidentiality determinations**

(a) The Department may make a class confidentiality determination if the Department finds that the items of information within the class share one or more characteristics, which characteristics would cause the Department to determine consistently that such information is or is not confidential information.

(b) A class confidentiality determination shall clearly identify the class of information to which it applies. Such identification shall include a list of the common characteristics shared by all information within the class.

(c) A class confidentiality determination shall state that all of the information in the class is or is not confidential information.

**7:1E-8.10 Classes of information which are not confidential information**

(a) Without limiting the ability of the Department to determine that information not listed in this section is not confidential information, the following types of information are not confidential information:

1. The name, address and business telephone number of the owner or operator of a transmission pipeline, or of the registered agent of such owner or operator;
2. The name, address and business telephone number of a facility and of its owner or operator and the registered agent of such owner or operator;

3. Schedules of integrity testing for aboveground storage tanks required to be submitted under N.J.A.C. 7:1E-2.2(a)4, and information concerning the methods of testing;

4. Test reports for aboveground storage tanks required to be submitted under N.J.A.C. 7:1E-2.2(a)5;

5. Information contained in documentation of employee training, evaluation and qualifying activities required to be maintained under N.J.A.C. 7:1E-2.12(d);

6. The storage capacity of a facility, the transfer capacity of a facility, and the types of hazardous substances present at a facility;

7. Discharge cleanup information required to be submitted under N.J.A.C. 7:1E-3.4;

8. All information required to be submitted by discharge cleanup organizations under N.J.A.C. 7:1E-4.2;

9. Lists of standard operating procedures required to be submitted under N.J.A.C. 7:1E-4.3(d)10;

10. Summaries of action plans required to be submitted under N.J.A.C. 7:1E-4.4(a)1;

11. Information concerning procedures for mobilizing equipment in the event of a discharge;

12. Names and titles of response coordinators and other persons authorized to hire contractors and release funds for discharge response, containment, cleanup and removal;

13. Information concerning proposed methods of disposal of material gathered during cleanups;

14. Housekeeping and maintenance records required to be made available under N.J.A.C. 7:1E-4.3(f)6;

15. The locations of environmentally sensitive areas;

16. Certifications required under N.J.A.C. 7:1E-4.11, and the identity of any person signing such a certification;

17. Information which the Department is required to report under N.J.A.C. 7:1E-5.9; and

18. Information contained in an administrative order or notice of civil administrative penalty assessment under N.J.A.C. 7:1E-6.3.

**SUBCHAPTER 9. DISCLOSURE AND USE OF CONFIDENTIAL INFORMATION****Source and Effective Date**

R.1992 d.186, effective April 20, 1992.

See: 23 N.J.R. 2848(a), 24 N.J.R. 1484(a).

**7:1E-9.1 Disclosure of confidential information to other public agencies**

(a) The Department may disclose confidential information to any other state agency or to a Federal agency if:

1. The Department receives a written request for disclosure of the information from a duly authorized officer or employee of the requesting agency;

2. The Department notifies the other agency of any pending confidentiality claim concerning the requested information, or of any confidentiality determination regarding the requested information;

3. The other agency has furnished to the Department a written opinion from the agency's chief legal officer or counsel stating that under applicable law the agency has the authority to compel the person who submitted the information to the Department (or allowed the Department to obtain such information) to disclose such information to the requesting agency;

4. The other agency has adopted regulations or operates under statutory authority that will allow it to preserve confidential information from unauthorized disclosure, and agrees in writing to refrain from disclosure and to safeguard the information in accordance with the requirements of N.J.A.C. 7:1E-10.1 and 10.2, unless:

i. The requesting agency has statutory authority both to compel production of the information and to disclose it; or

ii. The claimant has consented to disclosure of the information by the requesting agency; and

5. The requesting agency agrees not to disclose the information further unless:

i. The requesting agency has statutory authority both to compel production of the information and to make the proposed disclosure; or

ii. The claimant has consented to disclosure of the information by the requesting agency.

#### **7:1E-9.2 Disclosure of confidential information to contractors**

(a) The Department may disclose confidential information to a contractor, if it complies with the procedure established under (b) below, and if:

1. The Department determines that such disclosure is necessary in order for the contractor to perform the work required by the contract;

2. The contract provides that the contractor and the contractor's employees shall use the confidential information only for the purpose of performing the duties required by the contract, shall refrain from disclosing the confidential information to anyone other than the Department, shall store all records containing the confidential information in locked cabinets in secure rooms, and shall return to the Department all originals and all copies of the information (and any abstracts or extracts therefrom, or any records containing any of the confidential information) when the confidential information is no longer necessary to enable the contractor to perform obligations under the contract, or at any time upon the request of the Department; and

3. If the claimant so requests, the contractor contracts with the claimant to refrain from further disclosure of the confidential information.

(b) Before disclosing confidential information to a contractor under (a) above, the Department shall notify the claimant of the proposed disclosure in writing, delivered by certified mail, return receipt requested, at least 14 days before making the disclosure. The notice shall state the information to be provided, the identity of the contractor, and the scheduled date of disclosure. If, at least three working days before the scheduled date of disclosure, the claimant delivers to the Department information sufficient to establish that the proposed disclosure would be likely to cause more than nominal damage either to the claimant's competitive position or to national security, the Department shall refrain from making the disclosure.

#### **7:1E-9.3 Disclosure to alleviate an imminent and substantial danger**

(a) If the Department finds that disclosure of confidential information would serve to alleviate an imminent and substantial danger to public health, safety or the environment, the Department may, in its discretion, take one or more of the following actions:

1. Reduce the time allotted for providing substantiation pursuant to N.J.A.C. 7:1E-8.4, and notify the claimant of such reduction;

2. Advance the date on which the Department may disclose information which the Department has determined is not confidential information, pursuant to N.J.A.C. 7:1E-8.5(a), and notify the claimant of such advance; or

3. Immediately disclose the confidential information to any person whose role in alleviating the danger to public health and the environment makes such disclosure necessary. Any disclosure pursuant to this paragraph shall be limited to information necessary to enable the person to whom it is disclosed to carry out the activities in alleviating the danger. Any disclosure made pursuant to this paragraph shall not be deemed a waiver of a confidentiality claim and shall not be grounds for any determination that information is no longer confidential information.

#### **7:1E-9.4 Notice to claimants of disclosure of confidential information**

(a) Promptly after the Department discloses confidential information pursuant to N.J.A.C. 7:1E-9.1, 9.2 or 9.3, the Department shall notify any claimant from whom the Department has obtained confidential information of the disclosure. Such notice shall be in writing, and shall contain the following information:

1. The date on which disclosure was made;

2. The name of the agency or other person to which the Department disclosed the confidential information; and

3. A description of the confidential information disclosed.

#### **7:1E-9.5 Disclosure by consent**

(a) The Department may disclose confidential information in accordance with the written consent of the claimant.

(b) A claimant's consent to a particular disclosure shall not operate as a waiver of a confidentiality claim with regard to further disclosures, unless the authorized disclosure is of such nature that the disclosed information is no longer confidential information.

#### **7:1E-9.6 Incorporation of confidential information into cumulations of data**

Nothing in this chapter shall be construed as prohibiting the incorporation of confidential information into cumulations of data subject to disclosure as public records, provided that after consultation with the claimant, the Department has determined that such disclosure is not in a form that would foreseeably allow persons, not otherwise having knowledge of such confidential information, to deduce from it the confidential information or the identity of the person who supplied it to the Department.

#### **7:1E-9.7 Disclosure of confidential information in rulemaking, permitting, and enforcement proceedings**

(a) Notwithstanding any other provision of this subchapter, the Department may disclose confidential information in rulemaking, permitting and enforcement proceedings.

(b) The following procedures shall apply to the disclosure of confidential information by the Department in rulemaking, permitting and enforcement proceedings:

1. The Department may disclose confidential information in an adjudicatory hearing, subject to the protection from making the information available to the public which the administrative law judge may impose under the Uniform Administrative Procedure Rules, N.J.A.C. 1:1 including without limitation N.J.A.C. 1:1-14.1.

2. The Department may disclose confidential information in any enforcement, permitting, or rulemaking proceeding which does not involve an adjudicatory hearing, pursuant to the following procedure:

i. The Department shall inform the claimant that the Department is considering using the information in connection with the proceeding and shall afford the claimant a reasonable period for comment;

ii. The claimant shall submit comments to the Department within the time allotted pursuant to (b)2i above, concerning the proposed uses of confidential

information, including comments which may support a determination that the confidential information is not relevant to the proceeding, or that the disclosure of the confidential information in the proceeding is not necessary to serve the public interest;

iii. The Department may disclose the confidential information in the proceeding if, upon consideration of comments submitted pursuant to (b)2ii above, the Department determines that the information is relevant to the subject of the proceeding, that the use of the information in the proceeding will serve the public interest, and that it materially impairs such service of the public interest to limit the use of the information to a manner which preserves its confidentiality; and

iv. The Department shall give the affected person at least five days notice prior to using the information in the proceeding in a manner which may result in the information being made available to the public.

#### **7:1E-9.8 Hearing before disclosure of information for which a confidentiality claim has been made**

(a) A claimant may request an adjudicatory hearing to contest disclosure of any information for which a confidentiality claim has been made, at any time before disclosure. The request shall be in accordance with the requirements of N.J.A.C. 7:1E-6.4(b), and shall be delivered to the Department at the following address:

Department of Environmental Protection  
Office of Legal Affairs  
Attention—Adjudicatory Hearing Requests—  
DPCC Confidentiality  
401 East State Street  
CN 402  
Trenton, New Jersey 08625-0402

(b) The Department may deny a request for an adjudicatory hearing under (a) above if:

1. The claimant fails to provide all information required under N.J.A.C. 7:1E-6.4(b);

2. The Department receives the request after disclosure of the assertedly confidential information occurs;

3. The Department has been ordered to disclose the information by a court of competent jurisdiction, or by any other person or entity with the power and authority to compel disclosure; or

4. The Department determines that disclosure is necessary to alleviate an imminent danger to the environment or to public health or safety, as provided in N.J.A.C. 7:1E-9.3.

(d) All adjudicatory hearings shall be conducted in accordance with the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq., and the Uniform Administrative Procedure Rules, N.J.A.C. 1:1.

(e) At the adjudicatory hearing, the respondent shall have the burden of showing that the proposed disclosure is not in accordance with this chapter.

(f) Pending the completion of the adjudicatory hearing, the Department will refrain from disclosing the assertedly confidential information, unless:

1. The Department has been ordered to disclose the information by a court of competent jurisdiction, or by any other person or entity with the power and authority to compel disclosure; or

2. The Department determines that disclosure is necessary to alleviate an imminent danger to the environment or to public health or safety.

## SUBCHAPTER 10. TREATMENT OF CONFIDENTIAL INFORMATION

### Source and Effective Date

R.1992 d.186, effective April 20, 1992.  
See: 23 N.J.R. 2848(a), 24 N.J.R. 1484(a).

### 7:1E-10.1 Nondisclosure of confidential information

Unless specifically required by any Federal or State law, regulation or order, court order, or applicable court rule, the Department shall not disclose confidential information to any person other than as provided in N.J.A.C. 7:1E-9.

### 7:1E-10.2 Safeguarding of confidential information

(a) Submissions to the Department required under this chapter will be opened only by persons authorized by the Department to be engaged in administering this chapter.

(b) Only those Department employees whose activities necessitate access to information for which a confidentiality claim has been made may open any envelope which is marked "CONFIDENTIAL".

(c) The Department shall store any records containing confidential information only in locked cabinets in secure rooms; provided, however, that if such records are in a form which is not amenable to such storage, the Department shall store such records in a manner which similarly restricts access by persons to whom disclosure of the confidential information in question is restricted.

(d) Any records made, possessed, or controlled by the Department or its contractors, and containing confidential information, shall contain indicators identifying the confidential information.

(e) Every Department employee, representative, and contractor who has custody or possession of confidential information shall take appropriate measures to safeguard such information and to protect against its improper disclosure.

### 7:1E-10.3 Confidentiality agreements

The provisions of this chapter shall supersede the provisions of any agreement imposing any duties of confidentiality or nondisclosure upon the Department or any employee, contractor or agent thereof. Such provisions imposing confidentiality or nondisclosure duties upon the Department of any employee, contractor or agent thereof shall be of no force or effect.

### 7:1E-10.4 Wrongful access or disclosure; penalties

(a) No person shall disclose, obtain or have possession of any confidential information, except as authorized by this chapter.

(b) Except in accordance with this chapter, no Department employee, representative, or contractor shall disclose any confidential information which came into his or her possession, or to which he or she gained access, by virtue of his or her official position of employment or contractual relationship with the Department. No such person shall use any such information for his or her private gain or advantage, except as permitted by a contract between such person and the Department. If a contractor discloses confidential information in violation of this chapter or of contractual provisions restricting disclosure, such disclosure shall constitute grounds for debarment or suspension as provided in N.J.A.C. 7:1-5, Debarment, Suspension and Disqualification from Department Contracting.

(c) If the Department finds that any person has violated the provisions of this subchapter, it may:

1. Commence civil action in Superior Court for a restraining order and an injunction barring that person from further disclosing confidential information; and/or
2. Pursue any other remedy available at law or equity.

(d) In addition to any other penalty that may be sought by the Department, violation of this subchapter by a Department employee shall constitute grounds for dismissal, suspension, fine or other adverse personnel action.

(e) Use of any of the remedies specified under this section shall not preclude the use of any other remedy.

## APPENDIX A

### NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION LIST OF HAZARDOUS SUBSTANCES (ALPHABETICAL LISTING)

Name	CAS Number
Bottom sludge generated from the processing, blending, and treatment of waste oil in waste oil processing facilities.	

Name	CAS Number	Name	CAS Number
Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.	—	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	—
Cyanidation wastewater tailing pond sediment from mineral metals recovery operations.	—	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	—
Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulation containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)	—	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	—
Leachate resulting from the treatment, storage, or disposal of wastes classified by more than one waste code under Subpart D, or from a mixture of wastes classified under Subparts C and D of this part. (Leachate resulting from the management of one or more of the following EPA Hazardous Wastes and no other hazardous wastes retains its hazardous waste code(s): F020, F021, F022, F023, F026, F027 and/or F028.)	—	The following spent non-halogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	—
Oil spill cleanup residue which: A. is contaminated beyond saturation; or B. the generator fails to demonstrate that the spill material was not one of the listed hazardous waste oils.	—	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	—
Plating sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process.	—	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	—
Processes wastes, including but not limited to, distillation, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in 261.31 or 261.32.)	—	The following used and unused waste oils: metal working oils; turbine lubricating oils; diesel lubricating oils; and quenching oils.	—
Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	—		
Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.	—		
Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.	—		
Spent cyanide bath solutions from mineral metals recovery operations.	—		
Spent cyanide plating bath solutions from electroplating operations.	—		
Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	—		

Name	CAS Number	Name	CAS Number
Waste automotive crankcase and lubricating oils from automotive service and gasoline stations, truck terminals, and garages.	—	3-(alpha-acetonyl benzyl)-4-hydroxy-coumarin and salts	81-81-2
Waste oil and bottom sludge generated by gasoline stations when gasoline and oil tanks are tested, cleaned, or replaced.	—	Acetophenone	98-86-2
Waste oil and bottom sludge generated from tank cleanouts from residential/commercial fuel oil tanks.	—	2-Acetylaminofluorene	53-96-3
Waste petroleum oil generated when tank trucks or other vehicles or mobile vessels are cleaned, including, but not limited to, oily ballast water from product transport units of boats, barges, ships, or other vessels.	—	Acetyl bromide	506-96-7
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	—	Acetyl chloride	75-36-5
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	—	1-Acetyl-2-thiourea	591-08-2
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	—	Acrolein	107-02-8
Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating carbon steel, and (6) chemical etching and milling of aluminum.	—	Acrylamide	79-06-1
Wastewater treatment sludges from chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.	—	Acrylic acid	79-10-7
Acenaphthene	83-32-9	Acrylonitrile	107-13-1
Acenaphthylene	208-96-8	Acrylyl chloride	814-68-6
Acetaldehyde	75-07-0	Adipic acid	124-04-9
Acetamide	60-35-5	Adiponitrile	111-69-3
Acetic acid	64-19-7	Alachlor	15972-60-8
Acetic anhydride	108-24-7	Alanine, 3-[p-bis(2-chlorethyl)amino]phenyl]-L-]	148-82-3
Acetone	67-64-1	Alar	1596-84-5
Acetone cyanohydrin	75-86-5	Aldicarb	116-06-3
Acetone thiosemicarbazide	1752-30-3	Aldrin	309-00-2
Acetonitrile	75-05-8	Allyl alcohol	107-18-6
		Allyl chloride	107-05-1
		Aluminum (fume or dust)	7429-90-5
		Aluminum oxide fibrous forms	1344-28-1
		Aluminum phosphide	20859-73-8
		Aluminum sulfate	10043-01-3
		2-Aminoanthraquinone	117-79-3
		4-Aminoazobenzene	60-09-3
		4-Aminobiphenyl	92-67-1
		1-Amino-2-methylanthraquinone	82-28-0
		2-Amino-1-methylbenzene	95-53-4
		4-Amino-1-methylbenzene	106-49-0
		5-(Aminomethyl)-3-isoxazolol	2763-96-4
		p-Aminopropiophenone	70-69-9
		Aminopterin	54-62-6
		4-Aminopyridine	504-24-5
		N-Aminothioxomethyl acetamide	591-08-2
		Amiton	78-53-5
		Amiton oxalate	3734-97-2
		Amitraz	33089-61-1
		Amitrole	61-82-5
		Ammonia	7664-41-7
		Ammonium acetate	631-61-8
		Ammonium benzoate	1863-63-4
		Ammonium bicarbonate	1066-33-7
		Ammonium bichromate	7789-09-5
		Ammonium bifluoride	1341-49-7
		Ammonium bisulfite	10192-30-0
		Ammonium carbamate	1111-78-0
		Ammonium carbonate	506-87-6
		Ammonium chloride	12125-02-9
		Ammonium chromate	7788-98-9
		Ammonium citrate, dibasic	3012-65-5
		Ammonium fluoborate	13826-83-0
		Ammonium fluoride	12125-01-8
		Ammonium hydroxide	1336-21-6
		Ammonium hypophosphite	7803-65-8
		Ammonium nitrate	6484-52-2
		Ammonium nitrate (solution)	6484-52-2
		Ammonium oxalate	1113-38-8
		Ammonium persulfate	7727-54-0
		Ammonium picrate	131-74-8
		Ammonium silicofluoride	16919-19-0
		Ammonium sulfamate	7773-06-0
		Ammonium sulfate (solution)	7783-20-2
		Ammonium sulfide	12135-76-1



Name	CAS Number	Name	CAS Number
Ammonium sulfite	10196-04-0	Benzenamine	62-53-3
Ammonium tartrate	3164-29-2	Benzenamine, 4,4'-carbonimidoylbis(N,N-dimethyl-	492-80-8
Ammonium thiocyanate	1762-95-4	Benzenamine, 4-chloro- 2-methyl-, hydrochloride	3165-93-3
Ammonium thiosulfate	7783-18-8	Benzenamine, 2-methyl-	95-53-4
Ammonium vanadate	7803-55-6	Benzenamine, 4-methyl-	106-49-0
Amphetamine	300-62-9	Benzenamine, 2-methyl-hydrochloride	636-21-5
Amyl acetate	628-63-7	Benzenamine, 4-nitro-	100-01-6
iso-Amyl acetate	123-92-2	Benzenamine, 3-(trifluoromethyl)-	98-16-8
sec-Amyl acetate	626-38-0	Benzene	71-43-2
tert-Amyl acetate	625-16-1	Benzenearsonic acid	98-05-5
Aniline	62-53-3	Benzene, 1-(chloromethyl)-4-nitro-	100-14-1
Aniline, 2,4,6-trimethyl-	88-05-1	Benzenediamine, ar-methyl-	95-80-7
o-Anisidine	90-04-0		496-72-0
p-Anisidine	104-94-9		823-40-5
o-Anisidine hydrochloride	134-29-2		25376-45-8
Anthracene	120-12-7	1,2-Benzenedicarboxylic acid anhydride	85-44-9
Antimony	7440-36-0	1,2-Benzenedicarboxylic acid, di-n-octyl ester	117-84-0
Antimony compounds	—	Benzene, 1,1'-(2,2-dichloroethylidene) bis[4-chloro-	72-54-8
Antimony pentachloride	7647-18-9	1,3-Benzenediol	108-46-3
Antimony pentafluoride	7783-70-2	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino) ethyl]-	51-43-4
Antimony potassium tartrate	28300-74-5	Benzenecethanamine, alpha, alpha-dimethyl-	122-09-8
Antimony tribromide	7789-61-9	Benzene, hexahydro	110-82-7
Antimony trichloride	10025-91-9	Benzene, 1-methyl-1,2,4-dinitro-	—
Antimony trifluoride	7783-56-4	Benzene, 1-methyl-2,4-dinitro-	121-14-2
Antimony trioxide	1309-64-4	Benzene, 1-methyl-2,6-dinitro-	606-20-2
Antimycin A	1397-94-0	Benzene, 1,2-methylenedioxy-4-allyl-	94-59-7
Antu	86-88-4	Benzene, 1,2-methylenedioxy-4-propenyl-	94-58-6
Aroclor 1016	12674-11-2	Benzene, 1,2-methylenedioxy-4-propyl	—
Aroclor 1221	11104-28-2	Benzenesulfonyl chloride	98-09-9
Aroclor 1232	11141-16-5	Benzenethiol	108-98-5
Aroclor 1242	53469-21-9	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-	72-43-5
Aroclor 1248	12672-29-6	Benzidine	92-87-5
Aroclor 1254	11097-69-1	Benzimidazole, 4,5-dichloro-2-(trifluoromethyl)-	3615-21-2
Aroclor 1260	11096-82-5	1,2-Benzisothiazolin-3-one, 1,1-dioxide	81-07-2
Arsenic	7440-38-2	1,2-Benzisothiazolin-3-one, 1,1-dioxide, and salts	—
Arsenic acid	7778-39-4	Benzo[a] anthracene	56-55-3
Arsenic compounds	—	1,3-Benzodioxole, 5-(2-propenyl)-	94-59-7
Arsenic disulfide	1303-32-8	1,3-Benzodioxole, 5-propyl-	94-58-6
Arsenic (III) oxide	1303-36-2	Benzo(b)fluoranthene	205-99-2
Arsenic pentoxide	1303-28-2	Benzo(k)fluoranthene	207-08-9
Arsenic trioxide	1327-53-3	Benzo[j,k]fluorene	206-44-0
Arsenic trisulfide	1303-33-9	Benzoic acid	65-85-0
Arsenous trichloride	7784-34-1	Benzonitrile	100-47-0
Arsine	7784-42-1	Benzo[rs]pentaphene	189-55-9
Arsonous dichloride, phenyl-	696-28-6	Benzo[ghi]perylene	191-24-2
Asbestos	1332-21-4	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, and salts, when present at concentrations greater than 0.3%	81-81-2
Auramine	492-80-8	Benzo[a]pyrene	50-32-8
Avitrol	504-24-5	p-Benzoquinone	106-51-4
Azaserine	115-02-6	Benzotrichloride	98-07-7
Azinphos-ethyl	2642-71-9	Benzoyl chloride	98-88-4
Azinphos-methyl	86-50-0	Benzoyl peroxide	94-36-0
Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[ (aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl,[1aS-(1aalpha,8beta,8aalpha,8balph)]-	50-07-7	1,2-Benzphenanthrene	218-01-9
Barium	7440-39-3	Benzyl chloride	100-44-7
Barium cyanide	542-62-1	Benzyl cyanide	140-29-4
Bendiocarb (conc. above 15%)	22781-23-3	Beryllium	7440-41-7
Benomyl	17804-35-2	Beryllium chloride	7787-47-5
3,4-Benzacridine	225-51-4	Beryllium compounds	7440-41-7
Benz[c]acridine	225-51-4		
Benzal chloride	98-87-3		
Benzamide	55-21-0		
1,2-Benzanthracene	56-55-3		
Benz[a]anthracene	56-55-3		

Name	CAS Number	Name	CAS Number
Beryllium dust	7440-41-7	C.I. Acid Green 3	4680-78-8
Beryllium fluoride	7787-49-7	C.I. Basic Green 4	569-64-2
Beryllium nitrate	13597-99-4	C.I. Basic Red 1	989-38-8
BHC	608-73-1	C.I. Direct Black 38	1937-37-7
alpha-BHC	319-84-6	C.I. Direct Blue 6	2602-46-2
beta-BHC	319-85-7	C.I. Direct Brown 95	16071-86-6
delta-BHC	319-86-8	C.I. Disperse Yellow 3	2832-40-8
gamma-BHC	58-89-9	C.I. Food Red 5	3761-53-3
Bicyclo[2.2.1]heptane-2-carbonitrile, 5-chloro-6-(((methylethyl)oxy)methyl)-	15271-41-7	C.I. Food Red 15	81-88-9
Biphenyl	92-52-4	C.I. Solvent Orange 7	3118-97-6
Bis(2-chloroethoxy) methane	111-91-1	C.I. Solvent Yellow 1	60-09-3
Bis(2-chloroisopropyl) ether	108-60-1	C.I. Solvent Yellow 14	842-07-9
Bis(chloromethyl) ether	542-88-1	C.I. Solvent Yellow 3	97-56-3
Bis(2-chloro-1-methylethyl) ether	108-60-1	C.I. Solvent Yellow 34	492-80-8
Bis(chloromethyl) ketone	534-07-6	C.I. Vat Yellow 4	128-66-5
Bis(2-ethylhexyl) adipate	103-23-1	Cacodylic acid	75-60-5
Bis(2-ethylhexyl) phthalate	117-81-7	Cadmium	7440-43-9
Bithionol	97-18-7	Cadmium acetate	543-90-8
Bitoscanate	4044-65-9	Cadmium bromide	7789-42-6
2,2'-Bloxirane	1464-53-5	Cadmium chloride	10108-64-2
Bomyl (conc. above 1%)	122-10-1	Cadmium compounds	—
Boron trichloride	10294-34-5	Cadmium oxide	1306-19-0
Boron trifluoride	7637-07-2	Cadmium products	7440-43-9
Boron trifluoride (conc. above 0.005%) (compound with methyl ether (1:1))	353-42-4	Cadmium stearate	2223-93-0
Brodifacoum	56073-10-0	Calcium arsenate	7778-44-1
Bromadiolone	28772-56-7	Calcium arsenite	52740-16-6
Bromine	7726-95-6	Calcium carbide	75-20-7
Bromine cyanide	506-68-3	Calcium chromate	13765-19-0
Bromoacetone	598-31-2	Calcium cyanamide	156-62-7
Bromoform	75-25-2	Calcium cyanide	592-01-8
4-Bromophenyl phenyl ether	101-55-3	Calcium dodecylbenzenesulfonate	26264-06-2
Bromoxynil	1689-84-5	Calcium hypochlorite	7778-54-3
Bromoxynil butyrate	3861-41-4	Camphchlor	8001-35-2
Brucine	357-57-3	Camphene, octachloro-	8001-35-2
1,3-Butadiene	106-99-0	Cantharidin	56-25-7
Butanoic acid, 4-[bis(2-chloroethyl)]	—	Captadol	2939-80-2
2-Butanone	78-93-3	Captan	133-06-2
2-Butanone, 3,3-dimethyl-1-(methylthio)-, 0-[methylamino] carbonyl] oxime	39196-18-4	Carbachol chloride	51-83-2
2-Butanone peroxide	1338-23-4	Carbamic acid, methyl-, 0-(((2,4-dimethyl-1,3-dithiolan-2-yl	26419-73-8
2-Butenal	4170-30-3	Carbamic acid, methylnitroso-, ethyl ester	615-53-2
2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy] methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-(1alpha(Z), 72S*, 3R*), 7aalpha]]-	303-34-4	Carbamide, N-ethyl-N-nitroso-	759-73-9
Butyl acetate	123-86-4	Carbamide, N-methyl-N-nitroso-	684-93-5
iso-Butyl acetate	110-19-0	Carbamide, thio-	62-56-6
sec-Butyl acetate	105-46-4	Carbamimidoseleonic acid	—
tert-Butyl acetate	540-88-5	Carbaryl	63-25-2
Butyl acrylate	141-32-2	Carbofuran	1563-66-2
n-Butyl alcohol	71-36-3	Carbon bisulfide	75-15-0
sec-Butyl alcohol	78-92-2	Carbon disulfide	75-15-0
tert-Butyl alcohol	75-65-0	Carbonic acid, dithallium(I) salt	6533-73-9
Butylamine	109-73-9	Carbonic dichloride	75-44-5
iso-Butylamine	78-81-9	Carbonic difluoride	353-50-4
sec-Butylamine	13952-84-6	Carbon oxyfluoride	353-50-4
tert-Butylamine	75-64-9	Carbon tetrachloride	56-23-5
Butyl benzyl phthalate	85-68-7	Carbonyl chloride	75-44-5
1,2-Butylene oxide	106-88-7	Carbonyl fluoride	353-50-4
n-Butyl phthalate	84-74-2	Carbonyl sulfide	463-58-1
Butyraldehyde	123-72-8	Carbophenothion	786-19-6
Butyric acid	107-92-6	Catechol	120-80-9
iso-Butyric acid	79-31-2	Chloramben	133-90-4
		Chlorambucil	305-03-3
		Chloranil	116-29-0
		Chlordane	57-74-9
		Chlordane (Technical Mixture and Metabolites)	57-74-9
		Chlordane, alpha & gamma isomers	57-74-9
		Chlordane, technical	—

Name	CAS Number	Name	CAS Number
Chlordimeform	6164-98-3	Copper arsenate	10103-61-4
Chlorfenvinfos	470-90-6	Copper compounds	—
Chlorinated benzenes	—	Copper cyanide	544-92-3
Chlorinated ethanes	—	Coumafuryl (conc. above 3%)	117-52-2
Chlorinated naphthalene	—	Coumaphos	56-72-4
Chlorinated phenols	—	Coumatetralyl	5836-29-3
Chlorine	7882-50-5	Creosote	8001-58-9
Chlorine cyanide	506-77-4	p-Cresidine	120-71-8
Chlorine dioxide	10049-04-4	Cresol(s)	1319-77-3
Chlormephos	24934-91-6	m-Cresol	108-39-4
Chlormequat chloride	999-81-5	Cresol (mixed isomers)	1319-77-3
Chlornaphazine	494-03-1	o-Cresol	95-48-7
Chloroacetaldehyde	107-20-0	p-Cresol	106-44-5
Chloroacetic acid	79-11-8	Crimidine	535-89-7
2-Chloroacetophenone	532-27-4	Crotonaldehyde	4170-30-3
Chloroalkyl Ethers	—	Cumene	98-82-8
p-Chloroaniline	106-47-8	Cumene hydroperoxide	80-15-9
Chlorobenzene	108-90-7	Cupferron	135-20-6
Chlorobenzilate	510-15-6	Cupric acetate	142-71-2
2-Chloro-1,3-butadiene	126-99-8	Cupric acetoarsenite	12002-03-8
4-Chloro-m-cresol epoxy-	—	Cupric chloride	7447-39-4
4-Chloro-m-cresol	59-50-7	Cupric nitrate	3251-23-8
p-Chloro-m-cresol	59-50-7	Cupric oxalate	5893-66-3
Chlorodibromomethane	124-48-1	Cupric sulfate	7758-98-7
Chloroethane	75-00-3	Cupric sulfate, ammoniated	10380-29-7
Chloroethyl chloroformate	627-11-2	Cupric tartrate	815-82-7
2-Chloroethyl vinyl ether	110-75-8	Cyanazine	21725-46-2
Chloroform	67-66-3	Cyanide	57-12-5
Chloromethyl ether	542-88-1	Cyanide compounds	—
Chloromethyl methyl ether	107-30-2	Cyanides (soluble salts and complexes), not otherwise specified	—
2-Chloronaphthalene	91-58-7	Cyanogen	460-19-5
Chlorophacinone	3691-35-8	Cyanogen bromide	506-68-3
o-Chlorophenol	95-57-8	Cyanogen chloride	506-77-4
4-Chlorophenyl phenyl ether	7005-72-3	Cyanogen iodide	506-78-5
1-(o-Chlorophenyl)thiourea	5344-82-1	Cyanophos	2636-26-2
Chloroprene	126-99-8	Cyanuric fluoride	675-14-9
3-Chloropropionitrile	542-76-7	1,4-Cyclohexadienedione	—
Chlorosulfonic acid	7790-94-5	2,5-Cyclohexadiene-1,4-dione	106-51-4
Chlorothalonil	1897-45-6	Cyclohexane	110-82-7
4-Chloro-o-toluidine hydrochloride	3165-93-3	Cyclohexanone	108-94-1
Chloroxuron	1982-47-4	Cycloheximide	66-81-9
Chlorpyrifos	2921-88-2	Cyclohexylamine	108-91-8
Chlorthiophos	21923-23-9	2-Cyclohexyl-4,6-dinitrophenol	131-89-5
Chromic acetate	1066-30-4	Cyclophosphamide	50-18-0
Chromic acid	1333-82-0	Cyhexatin	13121-70-5
Chromic acid, calcium salt	13765-19-0	2,4-D Esters	94-11-1
Chromic chloride	10025-73-7		94-79-1
Chromic sulfate	10101-53-8		94-80-4
Chromium	7440-47-3		1320-18-9
Chromium compounds	—		1928-38-7
Chromous chloride	10049-05-5		1928-61-6
Chrysene	218-01-9		1929-73-3
Cobalt	7440-48-4		2971-38-2
Cobalt carbonyl	10210-68-1		25168-26-7
Cobalt, ((2,2'-(1,2-ethanediylbis (nitrilomethyl- dyne))bis(6-	62207-76-5	2,4-D, salts and esters	53467-11-1
Cobaltous bromide	7789-43-7	2,4-D butoxyethanol ester (conc. above 20%)	1929-73-3
Cobaltous formate	544-18-3	2,4-D Diethanolamine salt (conc. above 20%)	5742-19-18
Cobaltous sulfamate	14017-41-5	2,4-D Dimethylamine salt (conc. above 20%)	2008-39-1
Coke Oven Emissions	—	2,4-D Ethyl ester	533-23-3
Coking: ammonia still lime sludge from coking operations	—	2,4-D 2-ethylhexyl ester	1928-43-4
Coking: decanter tank far sludge from coking operations	—	2,4-D isooctyl ester (conc. above 20%)	25168-26-7
Colchicine	64-86-8	2,4-D, isopropyl ester	94-11-1
Copper	7440-50-8	2,4-D Methyl ester	1928-38-71
		2,4-D, mixed butyl esters	94-80-4

Name	CAS Number	Name	CAS Number
2,4-D mixed isobutyl esters	1713-15-1	Dichloromethylphenylsilane	149-74-6
2,4-D, Propylene glycol butyl ether esters (conc. above 20%)	1928-45-6	2,4-Dichlorophenol	120-83-2
2,4-D Sodium salt (conc. above 20%)	2702-72-9	2,6-Dichlorophenol	87-65-0
Daminozide	1596-84-5	(2,4-Dichlorophenoxy) acetic acid	94-75-7
Daunomycin	20830-81-3	2,4-Dichlorophenoxyacetic acid, salts and esters	—
DDE	72-55-9	Dichlorophenylarsine	696-28-6
11,17-Dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-methyl ester, (3Beta, 16beta, 17alpha, 18beta, 20alpha)-yohim-ban-16-carboxylic acid	50-55-5	Dichloropropane	26638-19-7
DDT metabolites	—	1,1-Dichloropropane	78-99-9
Decaborane(14)	17702-41-9	1,3-Dichloropropane	142-28-9
Decabromodiphenyl oxide	1163-19-5	n-2,3 Dichloropropanol	616-23-9
Demeton	8065-48-3	Dichloropropene	542-75-6
Dialifor	10311-84-9	Dichloropropene(s) (mixtures)	26952-23-8
Di-allate	2303-16-4	1,3-Dichloropropene	542-75-6
Diamine	302-01-2	2,3-Dichloropropene	78-88-6
2,4-Diaminoanisole	615-05-4	Dichloropropene-Dichloropropene (mixture)	8003-19-8
2,4-Diaminoanisole sulfate	39156-41-7	2,2-Dichloropropionic acid	75-99-0
4,4'-Diaminodiphenyl ether	101-80-4	1,3-Dichloropropylene	542-75-6
2,4-Diaminotoluene	95-80-7	Dichlorvos	62-73-7
Diaminotoluene (mixed isomers)	25376-45-8	Dicofol	115-32-2
Diazinon	333-41-5	Dicrotophos	141-66-2
Diazomethane	334-88-3	Dieldrin	60-57-1
1,2:5,6-Dibenzanthracene	53-70-3	1,2,3,4-Diepoxybutane	1464-53-5
Dibenz[a,h]anthracene	53-70-3	Diepoxybutane	1464-53-5
Dibenzo[a,h]anthracene	53-70-3	Diethanolamine	111-42-2
Dibenzofuran	132-64-9	Diethylamine	109-89-7
1,2:7,8-Dibenzopyrene	189-55-9	Diethylarsine	692-42-2
Dibenz[a,i]pyrene	189-55-9	Diethylcarbamazine citrate	1642-54-2
Diborane	19287-45-7	Diethyl chlorophosphate	814-49-3
1,2-Dibromo-3-chloropropane	96-12-8	N,N'-Diethylhydrazine	1615-80-1
di-n-butyl phthalate	84-74-2	O,O-Diethyl S-methyl dithiophosphate	3288-58-2
Dicamba	1918-00-9	Diethyl-p-nitrophenyl phosphate	311-45-5
Dichlobenil	1194-65-6	Diethyl phthalate	84-66-2
Dichlone	117-80-6	O,O-Diethyl O-pyrazinyl phosphorothioate	297-97-2
m-Dichlorobenzene	541-73-1	Diethylstilbestrol	56-53-1
S-(2,3-Dichloroallyl)diisopropylthiocarbamate	2303-16-4	Diethyl sulfate	64-67-5
Dichlorobenzene	25321-22-6	Digitoxin	71-63-6
1,2-Dichlorobenzene	95-50-1	Diglycidyl ether	2238-07-5
1,3-Dichlorobenzene	541-73-1	Digoxin	20830-75-5
1,4-Dichlorobenzene	106-46-7	1,2-Dihydro-3,6-pyrazinedione	123-33-1
m-Dichlorobenzene	—	Dihydrosafrole	94-58-6
Dichlorobenzene (mixed isomers)	25321-22-6	Dimefox	115-26-4
o-Dichlorobenzene	95-50-1	Dimethoate	60-51-5
p-Dichlorobenzene	106-46-7	3,3'-Dimethoxybenzidine	119-90-4
Dichlorobenzidine	91-94-1	Dimethylamine	124-40-3
Dichlorobromomethane	75-27-4	Dimethylaminoazobenzene	60-11-7
1,4-Dichloro-2-butene	764-41-0	N,N-Dimethylaniline	121-69-7
Dichlorodifluoromethane	75-71-8	7,12-Dimethylbenz[a]anthracene	57-97-6
3,5-Dichloro-N (1,1-dimethyl-2-propynyl) benzamide	23950-58-5	3,3'-Dimethylbenzidine	119-93-7
Dichlorodiphenyldichloroethane	72-54-8	alpha, alpha-Dimethylbenzylhydroperoxide	80-15-9
Dichloro diphenyl trichloroethane	50-29-3	Dimethylcarbaryl chloride	79-44-7
1,1-Dichloroethane	75-34-3	Dimethyldichlorosilane	75-78-5
1,2-Dichloroethane	107-06-2	Dimethylhydrazine	57-14-7
1,1-Dichloroethylene	75-35-4	1,2-Dimethylhydrazine	540-73-8
1,2-Dichloroethylene	540-59-0	3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino) carbonyl] oxime	39196-18-4
1,2-Dichloroethylene (E)	156-60-5	Dimethylnitrosamine	62-75-9
Dichloroethylenes (mixture)	25323-30-2	alpha, alpha-Dimethylphenethylamine	122-09-8
Dichloroethyl ether	111-44-4	2,4-Dimethylphenol	105-67-9
Dichloroisopropyl ether	108-60-1	Dimethyl-p-phenylenediamine	99-98-9
Dichloromethane	75-09-2	Dimethyl phosphorochloridothioate	2524-03-0
Dichloromethoxy ethane	111-91-1	Dimethyl phthalate	131-11-3
Dichloromethyl ether	542-88-1	Dimethyl sulfate	77-78-1
		Dimetilan	644-64-4
		Dinitrobenzene (mixed isomers)	25154-54-5
		m-Dinitrobenzene	99-65-0
		o-Dinitrobenzene	528-29-0

Name	CAS Number	Name	CAS Number
p-Dinitrobenzene	100-25-4	N-4-Ethoxyphenyl acetamid	62-44-2
4,6-Dinitro-o-cresol	534-52-1	Ethyl acetate	141-78-6
4,6-Dinitro-o-cresol and salts	—	Ethyl acrylate	140-88-5
Dinitrophenol	25550-58-7	Ethylbenzene	100-41-4
2,4-Dinitrophenol	51-28-5	Ethylbis(2-chloroethyl)amine	538-07-8
2,5-Dinitrophenol	329-71-5	Ethyl carbamate	51-79-6
2,6-Dinitrophenol	573-56-8	Ethyl chloroformate	541-41-3
Dinitrotoluene	25321-14-6	Ethyl cyanide	107-12-0
2,4-Dinitrotoluene	121-14-2	Ethylenebis(dithiocarbamic acid)	—
2,6-Dinitrotoluene	606-20-2	Ethylenebisdithiocarbamic acid, salts & esters	111-54-6
3,4-Dinitrotoluene	610-39-9	Ethylenediamine	107-15-3
Dinocap	39300-45-3	Ethylenediamine-tetraacetic acid (EDTA)	60-00-4
Dinoseb	88-85-7	Ethylene dibromide	106-93-4
Dinoterb	1420-07-1	Ethylene dichloride	107-06-2
Di-n-octyl phthalate	117-84-0	Ethylene fluorohydrin	371-62-0
1,4-Dioxane	123-91-1	Ethylene glycol	107-21-1
Dioxathion	78-34-2	Ethylene oxide	75-21-8
Diphacinone	82-66-6	Ethylenimine	151-56-4
Diphenylamine	122-39-4	Ethyl ether	60-29-7
Diphenylhydrazine	122-66-7	Ethylidene dichloride	75-34-3
1,2-Diphenylhydrazine	122-66-7	Ethyl methacrylate	97-63-2
Diphosphoric acid, tetraethyl ester	107-49-3	Ethyl methanesulfonate	62-50-0
Dipropylamine	142-84-7	Ethylthiocyanate	542-90-5
Di-n-propylnitrosamine	621-64-7	Explosives: pink/red water from TNT operation	—
Diquat	85-00-7	Explosives: spent carbon from the treatment of wastewater containing explosives	—
Disulfoton	298-04-4	Explosives: wastewater treatment sludges from the manufacturing and processing of explosives	—
Dithiazanine iodide	514-73-8	Explosives: wastewater treatment sludges from the manufacturing formulation and loading of lead-based initiating compounds	—
Dithiobiuret	541-53-7	Famphur	52-85-7
2,4-Dithiobiuret	32976-88-8	Fenaminosulf (conc. above 5%)	140-56-7
Dithiopyrophosphoric acid, tetraethyl ester	—	Fenamiphos	22224-92-6
Diuron	330-54-1	Fenitrothion	122-14-5
Dodecylbenzenesulfonic acid	27176-87-0	Fensulfothion	115-90-2
EBDCs	—	Fenthion (conc. above 0.5%)	55-38-9
Emetine, dihydrochloride	316-42-7	Ferric ammonium citrate	1185-57-5
Endosulfan	115-29-7	Ferric ammonium oxalate	2944-67-4
alpha-Endosulfan	959-98-8	Ferric chloride	55488-87-4
beta-Endosulfan	33213-65-9	Ferric dextran	7705-08-0
Endosulfan metabolites	—	Ferric fluoride	9004-66-4
Endosulfan sulfate	1031-07-8	Ferric nitrate	7783-50-8
Endothall	145-73-3	Ferric sulfate	10421-48-4
Endothion	2778-04-3	Ferroalloys: emission control dust or sludge from ferrochromium production	10028-22-5
Endrin	72-20-8	Ferroalloys: emission control dust or sludge from ferrochromiumsiron	—
Endrin aldehyde	7421-93-4	Ferrous ammonium sulfate	10045-89-3
Endrin metabolites	—	Ferrous chloride	7758-94-3
Epichlorohydrin	106-89-8	Ferrous sulfate	7720-78-7
Epinephrine	51-43-4	Fluometuron	4301-50-2
EPN	2104-64-5	Fluoranthene	—
2,3-Epoxy-1-propanol	556-52-5	N-2-Fluorenylacetamide	2164-17-2
Ergocalciferol	50-14-6	Fluorene	206-44-0
Ergotamine tartrate	379-79-3	Fluorine	53-96-3
Ethanal	75-07-0	Fluoroacetamide	86-73-7
Ethanamine, 1,1-dimethyl-2-phenyl-	122-09-8	Fluoroacetic acid	7782-41-4
Ethanedinitrile	460-19-5	Fluoroacetic acid, sodium salt	640-19-7
1,2-Ethanedithiolbiscarbamodithioic acid	—	Fluoroacetic acid, sodium salt	144-49-0
Ethane, 1,1'-(methylenebis(oxy)) bis(2-chloro-	111-91-1	Fluoroacetyl chloride	62-74-8
Ethanimine	75-05-8	Fluorouracil	359-06-8
Ethanesulfonyl chloride, 2-chloro-	1622-32-8	Fonofos	51-21-8
Ethanedithioamide	62-55-5		944-22-9
Ethanol, 1,2-dichloro-, acetate	10140-87-1		
Ethanol, 2,2'-(nitrosoimino)bis-	1116-54-7		
Ethanoyl chloride	75-36-5		
Ethenamine, N-methyl-N-nitroso-	—		
Ethene, trans-1,1-dichloro-	—		
Ethion	563-12-2		
Ethoprophos	13194-48-4		
2-Ethoxyethanol	110-80-5		

Name	CAS Number	Name	CAS Number
Formaldehyde	50-00-0	Inorganic chemicals: brine purification muds from the mercury cell process in chlorine production where separately prepurified brine is not used	—
Formaldehyde cyanohydrin	107-16-4	Inorganic chemicals: chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production	—
Formetanate hydrochloride	23422-53-9	Inorganic chemicals: wastewater treatment sludge from the mercury cell process in chlorine production	—
Formic acid	64-18-6	Inorganic pigments: oven residue from the production of chrome oxide green pigments	—
Formothion	2540-82-1	Inorganic pigments: wastewater treatment sludge from the production of chrome green pigments	—
Formparanate	17702-57-7	Inorganic pigments: wastewater treatment sludge from the production of chrome yellow and orange pigments	—
Fosthietan	21548-32-3	Inorganic pigments: wastewater treatment sludge from the production of iron blue pigments	—
Freon 113	76-13-1	Inorganic pigments: wastewater treatment sludge from the production of molybdate orange pigments	—
Fuberidazole	3878-19-1	Inorganic pigments: wastewater treatment sludge from the production of zinc yellow pigments	—
Fulminic acid, mercury(II) salt	628-86-4	Iron and steel: emission control dust/sludge from the primary production of steel in electric furnaces	—
Fumaric acid	110-17-8	Iron and steel: spent pickle liquor generated by steel finishing operations of facilities with the iron and steel industry (SIC Codes 331 and 332)	—
Furan	110-00-9	Iron dextran	9004-66-4
2-Furancarbo-carboxaldehyde	—	Iron, pentacarbonyl-	13463-40-6
2-Furancarboxaldehyde	98-01-1	Isobenzan	297-78-9
Furfural	98-01-1	Isobutyl alcohol	78-83-1
Furfuran	110-00-9	Isobutylaldehyde	78-84-2
Gallium trichloride	13450-90-3	Isobutyronitrile	78-82-0
Glycidylaldehyde	765-34-4	Isocyanic acid, 3,4-dichlorophenyl ester	102-36-3
Haloethers	—	Isocyanic acid, methylester	624-83-9
Halomethanes	—	Isodrin	465-73-6
Heptachlor	76-44-8	Isofluorophate	55-91-4
Heptachlor (and epoxide)	76-44-8	Isophorone	78-59-1
Heptachlor epoxide	1024-57-3	Isophorone diisocyanate	4098-71-9
Heptachlor metabolites	—	Isoprene	78-79-5
Hexachlorobenzene	118-74-1	Isopropanolamine dodecylbenzene sulfonate	42504-46-1
Hexachloro-1,3-butadiene	87-68-3	Isopropyl alcohol (mfg-strong acid process)	67-63-0
Hexachlorobutadiene	87-68-3	Isopropyl chloroformate	108-23-6
Hexachlorocyclohexane (all isomers)	606-73-1	4,4'-Isopropylidenediphenol	80-05-7
Hexachlorocyclohexane (gamma isomer)	58-89-9	Isopropylmethylpyrazolyl dimethylcarbamate	119-38-0
Hexachlorocyclopentadiene	77-47-4	Isosafrole	120-58-1
Hexachloroethane	67-72-1	3(2H)-isoxazolone, 5-(aminomethyl)-	2763-96-4
Hexachlorohexahydro-exo, exodimethanonaphthalene	—	Kelthane	115-32-2
Hexachloronaphthalene	1335-87-1	Kepone	143-50-0
Hexachlorophene	70-30-4	Lactonitrile	78-97-7
Hexachloropropene	1888-71-7	Lasiocarpine	303-34-4
Hexaethyl tetraphosphate	757-58-4	Lead	7439-92-1
Hexamethylenediamine, N,N'-dibutyl-	4835-11-4	Lead acetate	301-04-2
Hexamethylphosphoramide	680-31-9	Lead acetic acid	301-04-2
Hydrazine	302-01-2	Lead arsenate	10102-48-4
Hydrazine sulfate	10034-93-2	Lead, bis(acetato-O)tetrahydroxytn-	1335-32-6
Hydrochloric acid	7647-01-0	Lead chloride	7758-95-4
Hydrocyanic acid	74-90-8	Lead compounds	—
Hydrofluoric acid	7664-39-3		
Hydrogen chloride	7647-01-0		
Hydrogen cyanide	74-90-8		
Hydrogen fluoride	7664-39-3		
Hydrogen peroxide (Conc. > 52%)	7722-84-1		
Hydrogen phosphide	7803-51-2		
Hydrogen selenide	7783-07-5		
Hydrogen sulfide	7783-06-4		
Hydroperoxide, 1-methyl-1-phenylethyl-	80-15-9		
Hydroquinone	123-31-9		
Hydroxylamine	7803-49-8		
2-Imidazolidinethione	96-45-7		
Indeno(1,2,3-cd)pyrene	193-39-5		
Ink formulation: solvent washes & sludges, caustic wastes & sludges or water washes & sludges from cleaning tubs & equipment used in the formulation of ink from pigments/driers/soaps & stabilizers containing CR & Pb	—		
Inorganic arsenic	7440-38-2		
Inorganic arsenicals (above 0.5% of active ingredients)	—		



Name	CAS Number	Name	CAS Number
Lead fluoborate	13814-96-5		96-33-3
Lead fluoride	7783-46-2	2-Methylaziridine	75-55-8
Lead iodide	10101-63-0	Methyl bromide	74-83-9
Lead nitrate	10099-74-8	1-Methylbutadiene	504-60-9
Lead phosphate	7446-27-7	Methyl chloride	74-87-3
Lead stearate	1072-35-1	Methyl 2-chloroacrylate	80-63-7
	7428-48-0	Methyl chlorocarbonate	79-22-1
	52652-59-2	Methylchloroform	71-55-6
	56189-09-4	3-Methylcholanthrene	56-49-5
Lead subacetate	1335-32-6	Methyl demeton	919-86-8
Lead sulfate	7446-14-2	4,4'-Methylenebis(2-chloroaniline)	101-14-4
Lead sulfide	1314-87-0	4,4'-Methylenebis(N,N-dimethyl)benzenamine	101-61-1
Lead thiocyanate	592-87-0	Methylenebis(phenylisocyanate)	101-68-8
Leptophos	21609-90-5	2,2'-Methylenebis(3,4,6-trichlorophenol)	70-30-4
Lethane 384 (conc. above 10%)	112-56-1	Methylene bromide	74-95-3
Lewisite	541-25-3	Methylene chloride	75-09-2
Lindane	58-89-9	4,4'-Methylenedianiline	101-77-9
Lithium chromate	14307-35-8	Methylene oxide	50-00-0
Lithium hydride	7580-67-8	Methyl ethyl ketone	78-93-3
Malathion	121-75-5	Methyl ethyl ketone peroxide	1338-23-4
Maleic acid	110-16-7	Methyl hydrazine	60-34-4
Maleic anhydride	108-31-6	Methyl iodide	74-88-4
Maleic hydrazide	123-33-1	Methyl isobutyl ketone	108-10-1
Malononitrile	109-77-3	Methyl isocyanate	624-83-9
Maneb	12427-38-2	Methyl isothiocyanate	556-61-6
Manganese	7439-96-5	2-Methylactonitrile	75-84-5
Manganese, tricarbonyl methylcyclopentadienyl	12108-13-3	Methyl mercaptan	74-93-1
Mechlorethamine	51-75-2	Methylmercuric dicyanamide	502-39-6
Melphalan	148-82-3	N-Methyl-N'-nitro-N-nitrosoguanidine	70-25-7
Mephosfolan	950-10-7	Methyl parathion	298-00-0
Mercaptodimethur	2032-65-7	Methyl phenkapton	3735-23-7
Mercuric acetate	1600-27-7	Methyl phosphonic dichloride	676-97-1
Mercuric chloride	7487-94-7	Methyl tert-butyl ether	1634-04-4
Mercuric cyanide	592-04-1	Methyl thiocyanate	556-64-9
Mercuric nitrate	10045-94-0	Methylthiouracil	56-04-2
Mercuric oxide	21908-53-2	Methyltrichlorosilane	75-79-6
Mercuric sulfate	7783-35-9	Methyl vinyl ketone	78-94-4
Mercuric thiocyanate	592-85-8	Metolcarb	1129-41-5
Mercurous nitrate	10415-75-5	Mevinphos	7786-34-7
Mercury	7439-97-6	Mexacarbate	315-18-4
Mercury compounds	7439-97-6	Michler's ketone	90-94-8
Mercury fulminate	628-86-4	Mirex	2385-85-5
Metaldehyde	108-62-3	Mitomycin C	50-07-7
Methacrolein diacetate	10476-95-6	Molybdenum trioxide	1313-27-5
Methacrylic anhydride	760-93-0	Monocrotophos	6923-22-4
Methacrylonitrile	126-98-7	Monoethylamine	75-04-7
Methacryloyl chloride	920-46-7	Monomethylamine	74-89-5
Methacryloyloxyethyl isocyanate	30674-80-7	Muscimol	2763-96-4
Methamidophos	10265-92-6	Mustard gas	505-60-2
Methane, isocyanato-	624-83-9	Naled	300-76-5
Methane, oxybis (chloro)-	542-88-1	Naphthalene	91-20-3
Methanesulfonyl fluoride	558-25-8	Naphthalene compounds	—
Methanethiol	74-93-1	1,4-Naphthalenedione	130-15-4
Methane, trichloro-	67-66-3	Naphthenic acid	1338-24-5
Methanoic acid	64-18-6	1,4-Naphthoquinone	130-15-4
4,7-Methano-1 H-indene,1,4,5,6,7,8,8-hepte-		Naphthylamine	91-29-3
chloro-3a,4,7,7a-tetrahydro-	76-44-8	1-Naphthylamine	134-32-7
Methanol	67-56-1	2-Naphtylamine	91-59-8
Methapyrilene	91-80-5	alpha-Naphthylthiourea	86-88-4
Methidathion	950-37-8	Nickel	7440-02-0
Methiocarb	2032-65-7	Nickel ammonium sulfate	15699-18-0
Methomyl	16752-77-5	Nickel carbonyl	13463-39-3
Methoxychlor	72-43-5	Nickel chloride	7718-54-9
2-Methoxyethanol	109-86-4	Nickel compounds	—
Methoxyethylmercuric acetate	151-38-2	Nickel cyanide	557-19-7
Methyl acrylate	96-33-3	Nickel hydroxide	12054-48-7

Name	CAS Number	Name	CAS Number
Nickel nitrate	14216-75-2	Organic chemicals: bottom stream from the wastewater stripper in the production of acrylonitrile	—
Nickel sulfate	7786-81-4	Organic chemicals: bottoms from the acetonitrile purification column in the production of acrylonitrile	—
Nickel tetracarbonyl	13463-39-3	Organic chemicals: centrifuge and distillation residues from toluene diisocyanate production	—
Nicotine	54-11-5	Organic chemicals: column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDHM) from carboxylic acid hydrazines	—
Nicotine salts	—	Organic chemicals: column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene	—
Nicotine sulfate	65-30-5	Organic chemicals: combined wastewater streams generated from nitrobenzene/aniline production	—
Nitric acid	7697-37-2	Organic chemicals: condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	—
Nitric acid, thallium(1 +) salt	10102-45-1	Organic chemicals: condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDHM) from carboxylic acid hydrazines	—
Nitric oxide	10102-43-9	Organic chemicals: condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitro-toluene	—
Nitrilotriacetic acid	139-13-9	Organic chemicals: distillation bottom tars from the production of phenol/acetone from cumene	—
p-Nitroaniline	100-01-6	Organic chemicals: distillation bottoms from aniline production	—
5-Nitro-o-anisidine	99-59-2	Organic chemicals: distillation bottoms from the production of 1,1,1-trichloroethane	—
Nitrobenzene	98-95-3	Organic chemicals: distillation bottoms from the production of acetaldehyde from ethylene	—
4-Nitrobiphenyl	92-93-3	Organic chemicals: distillation bottoms from the production of anhydride from ortho-xylene	—
Nitrocyclohexane	1122-60-7	Organic chemicals: distillation bottoms from the production of nitrobenzene by the nitration of benzene	—
Nitrofen	1836-75-5	Organic chemicals: distillation bottoms from the production of phthalic anhydride from naphthalene	—
Nitrogen dioxide	10102-44-0	Organic chemicals: distillation light ends from the production of phthalic anhydride from naphthalene	—
Nitrogen mustard	51-75-2	Organic chemicals: distillation of light ends from the production of phthalic anhydride from ortho-xylene	—
Nitrogen oxide	10102-43-9	Organic chemicals: distillation or fractionation column bottoms from the production of chlorobenzenes	—
Nitrogen (II) oxide	—	Organic chemicals: distillation side cuts from the production of acetaldehyde from ethylene	—
Nitrogen (IV) oxide	—	Organic chemicals: heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	—
Nitrogen oxide NO2	10544-72-6	Organic chemicals: heavy ends (still bottoms) from the purification column in the production of epichlorohydrin	—
Nitroglycerin	55-63-0		
Nitrophenol (mixed isomers)	25154-55-6		
2-Nitrophenol	88-75-5		
m-Nitrophenol	554-84-7		
o-Nitrophenol	88-75-5		
p-Nitrophenol	100-02-7		
Nitrophenols	—		
2-Nitropropane	79-46-9		
Nitrosamines	—		
N-Nitrosodi-n-butylamine	924-16-3		
N-Nitrosodiethanolamine	1116-54-7		
N-Nitrosodiethylamine	55-18-5		
Nitrosodimethylamine	62-75-9		
N-Nitrosodiphenylamine	86-30-6		
p-Nitrosodiphenylamine	156-10-5		
N-Nitrosodi-n-propylamine	621-64-7		
N-Nitroso-N-ethylurea	759-73-9		
N-Nitroso-N-methylurea	684-93-5		
N-Nitroso-N-methylurethane	615-53-2		
N-Nitrosomethylvinylamine	4549-40-0		
N-Nitrosomorpholine	59-89-2		
N-Nitrosornicotine	16543-55-8		
N-Nitrosopiperidine	100-75-4		
N-Nitroso-N-propylamine	—		
N-Nitrosopyrrolidine	930-55-2		
Nitrotoluene	1321-12-6		
m-Nitrotoluene	99-08-1		
o-Nitrotoluene	88-72-2		
p-Nitrotoluene	99-99-0		
5-Nitro-o-toluidine	99-55-8		
Norbormide	991-42-4		
5-Norbornene-2, 3-dimethanol, 1,4,5,6,7,7-hexachloro, cyclic sulfite	—		
Octachloronaphthalene	2234-13-1		
Octamethyl pyrophosphoramidate	152-16-9		
Organic chemicals: heavy ends from the fractionation column in ethyl chloride production	—		
Organic chemicals: aqueous spent antimony catalyst waste from fluoromethanes production	—		
Organic chemicals: bottom stream from the acetonitrile column in the production of acrylonitrile	—		

Name	CAS Number	Name	CAS Number
Organic chemicals: heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	—	2H-1,3,2-Oxazaphosphorine, 2 [bis (2-chlorethyl) amino] benzene-	—
Organic chemicals: heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	—	Oxetane, 3,3-bis(chloromethyl)-	78-71-7
Organic chemicals: heavy ends from the heavy ends column from the product of 1,1,1-trichloroethane	—	Oxirane	75-21-8
Organic chemicals: heavy ends or distillation residues from the production of carbon tetrachloride	—	Oxiranecarboxyaldehyde	765-34-4
Organic chemicals: organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine	—	10, 10'-Oxybisphenoxarsine	58-36-6
Organic chemicals: process residues from aniline extraction from the production of aniline	—	Oxydisulfoton	2497-07-6
Organic chemicals: product washwaters from the production of dinitrotoluene via nitration of toluene	—	Oxyfluorfen	42874-03-3
Organic chemicals: reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene	—	Ozone	10028-15-6
Organic chemicals: separated aqueous stream from the reactor product washing step in the production of chlorobenzenes	—	Paraformaldehyde	30525-89-4
Organic chemicals: spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	—	Paraldehyde	123-63-7
Organic chemicals: spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane	—	Paraquat	1910-42-5
Organic chemicals: spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	—	Paraquat methosulfate	2074-50-2
Organic chemicals: still bottoms from the distillation of benzyl chloride	—	Parathion	56-38-2
Organic chemicals: still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	—	Paris green	12002-03-8
Organic chemicals: stripping still tails from the production of methy ethyl pyridines	—	Pentaborane	19624-22-7
Organic chemicals: vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	—	Pentachlorobenzene	608-93-5
Organic chemicals: waste from the product stream stripper in the production of 1,1,1-trichloroethane	—	Pentachloroethane	76-01-7
Organic chemicals: wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene	—	Pentachloronitrobenzene	82-68-8
Organorhodium Complex (PMN-82-147)	—	Pentachlorophenol	87-86-5
Osmium oxide	12036-02-1	Pentadecylamine	2570-26-5
Osmium oxide (T-4)-	20816-12-0	1,3-Pentadiene	504-60-9
Osmium tetroxide	20816-12-0	Peracetic acid	79-21-0
Ouabain	630-60-4	Perchloroethylene	127-18-4
Oxamyl	23135-22-0	Perchloromethylmercaptan	594-42-3
1,2-Oxathiolane, 2,2-dioxide	1120-71-4	Pesticides: 2,6-Dichlorophenol waste from the production of 2,4-D	—
		Pesticides: baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts	—
		Pesticides: by-product salts generated in the production of MSMA and cacodylic acid	—
		Pesticides: filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate	—
		Pesticides: filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane	—
		Pesticides: filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts	—
		Pesticides: heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	—
		Pesticides: process wastewater (including supermates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt	—
		Pesticides: reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts	—
		Pesticides: spent absorbent and wastewater separator solids from the production of methyl bromide	—
		Pesticides: still bottoms from toluene reclamation distillation in the production of disulfoton	—
		Pesticides: untreated process wastewater from the production of toxaphene	—
		Pesticides: untreated wastewater from the production of 2,4-D	—
		Pesticides: vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	—

Name	CAS Number	Name	CAS Number
Pesticides: wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane	—	Phosphorothioic acid, O,O-dimethyl-O-[p-((dimethyl-amino)-sulfonyl)phenyl] ester	52-85-7
Pesticides: wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide	—	Phosphorothioic acid, O,O-dimethyl-5-(2-(methylthio)ethyl)es	2587-90-8
Pesticides: wastewater from the washing and stripping of phorate production	—	Phosphorus	7723-14-0
Pesticides: wastewater treatment sludge from the production of chlordane	—	Phosphorus oxychloride	10025-87-3
Pesticides: wastewater treatment sludge from the production of phorate	—	Phosphorus pentachloride	10026-13-8
Pesticides: wastewater treatment sludge from the production of toxaphene	—	Phosphorus pentasulfide	1314-80-3
Pesticides: wastewater treatment sludges from the production of disulfoton	—	Phosphorus pentoxide	1314-56-3
Pesticides: wastewater treatment sludges generated in the production of creosote	—	Phosphorus sulfide	1314-80-3
Petroleum refining: API separator sludge from the petroleum refining industry	—	Phosphorus trichloride	7719-12-2
Petroleum refining: dissolved air flotation (DAF) float from the petroleum refining industry	—	Phthalate esters	—
Petroleum refining: heat exchanger bundle cleaning sludge from the petroleum refining industry	—	Phthalic anhydride	85-44-9
Petroleum refining: slop oil emulsion solids from the petroleum refining industry	—	Physostigmine	57-47-6
Petroleum refining: tank bottoms (lead) from the petroleum refining industry	—	Physostigmine, salicylate (1:1)	57-64-7
Phenacetin	62-44-2	2-Picoline	109-06-8
Phenanthrene	85-01-8	Picric acid	88-89-1
Phenarsazine chloride	578-94-9	Picrotoxin	124-87-8
Phenol	108-95-2	Pindone (conc. above 12%)	83-26-1
Phenol, 2,4-dinitro-6-(1-methylpropyl)	88-85-7	Piperidine	110-89-4
Phenol, 2,4-dinitro-6-methyl- salts	—	Pirimicarb (conc. above 15%)	23103-98-2
Phenol, methyl-	1319-77-3	Pirimifos-ethyl	23505-41-1
Phenol, 3-(1-methylethyl)-, methylcarbamate	64-00-6	Polychlorinated biphenyls (PCBs)	—
Phenol, 2-(1-methylpropyl)-4,6-dinitro	88-85-7		1336-36-3
Phenol, 2,2'-thiobis[4-chloro-6-methyl-	4418-66-0		11096-82-5
Phenyl dichloroarsine	696-28-6		11097-69-1
p-Phenylenediamine	106-50-3		11104-28-2
1,10-(1,2-Phenylene)pyrene	193-39-5		11141-16-5
Phenylhydrazine hydrochloride	59-88-1		12672-29-6
Phenylmercuric acetate	62-38-4		12674-11-2
2-Phenylphenol	90-43-7		53469-21-9
Phenylsilatrane	2097-19-0	Polychlorinated terphenyls	—
Phenylthiourea	103-85-5	Polynuclear aromatic hydrocarbons	—
Phorate	298-02-2	Potassium arsenate	7784-41-0
Phosacetim	4104-14-7	Potassium arsenite	10124-50-2
Phosalone (conc. above 13%)	2310-17-0	Potassium bichromate	7778-50-9
Phosfolan	947-02-4	Potassium chromate	7789-00-6
Phosgene	75-44-5	Potassium cyanide	151-50-8
Phosmet	732-11-6	Potassium hydroxide	1310-58-3
Phosphamidon	13171-21-6	Potassium permanganate	7722-64-7
Phosphine	7803-51-2	Potassium silver cyanide	506-61-6
Phosphonothioic acid, methyl-, S-(2-(bis(1-methylethyl)amino	50782-69-9	Primary aluminum: spent potliners from primary aluminum reduction	—
Phosphonothioic acid, methyl-, O-ethyl O-(4-methylthio)phen	2703-13-1	Primary copper: acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production	—
Phosphonothioic acid, methyl-, O-(4-nitrophenyl) O-phenyl es	2665-30-7	Primary lead: surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities	—
Phosphoric acid	7664-38-2	Primary zinc: sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production	—
Phosphoric acid, dimethyl 4-(methylthio) phenyl ester	3254-63-5	Promecarb	2631-37-0
Phosphoric acid, lead salt	7446-27-7	Pronamide	23950-58-5
		1-Propanamine	107-10-8
		Propanedinitrile	109-77-3
		Propanenitrile	107-12-0
		Propanenitrile, 3-chloro-	542-76-7
		Propane, 2,2'-oxybis(2-chloro-	108-60-1
		1,3-Propane sultone	1120-71-4
		1,Propanol,2,3-dibromo-, phosphate (3:1)	126-72-7
		2-Propanone	67-64-1
		Propargite	2312-35-8
		Propargyl alcohol	107-19-7
		Propargyl bromide	106-96-7

Name	CAS Number	Name	CAS Number
2-Propenenitrile	107-13-1	Silver cyanide	506-64-9
2-Propenenitrile, 2-methyl-	126-98-7	Silver nitrate	7761-88-8
2-Propenoic acid, ethyl ester	140-88-5	Silvex	93-72-1
2-Propenoic acid, 2-methyl-, ethyl ester	97-63-2	Sodium	7440-23-5
2-Propen-1-ol	107-18-6	Sodium arsenate	7631-89-2
beta-Propiolactone	57-57-8	Sodium arsenite	7784-46-5
Propionaldehyde	123-38-6	Sodium azide	26628-22-8
Propionic acid	79-09-4	Sodium bichromate	10588-01-9
Propionic anhydride	123-62-6	Sodium bifluoride	1333-83-1
Propoxur	114-26-1	Sodium bisulfite	7631-90-5
n-Propylamine	107-10-8	Sodium cacodylate	124-65-2
Propyl chloroformate	109-61-5	Sodium chlorate (conc. above 7%)	7775-09-9
Propylene (Propene)	115-07-1	Sodium chromate	7775-11-3
Propylene dichloride	78-87-5	Sodium cyanide	143-33-9
Propyleneimine	75-55-8	Sodium dodecylbenzenesulfonate	25155-30-0
Propylene oxide	75-56-9	Sodium flouride	7681-49-4
1,2-Propylenimine	75-55-8	Sodium fluoroacetate	62-74-8
Prothoate	2275-18-5	Sodium hydrosulfide	16721-80-5
2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloro-ethyl)amino]-	66-75-1	Sodium hydroxide	1310-73-2
Pyrene	129-00-0	Sodium hypochlorite	7681-52-9
Pyrenthrins	121-21-1	Sodium methylate	124-41-4
	121-29-9	Sodium monofluoroacetate	62-74-8
	8003-34-7	Sodium nitrite	7632-00-0
4-Pyridinamine	504-24-5	Sodium phosphate, dibasic	7558-79-4
Pyridine	110-86-1	Sodium phosphate, tribasic	7601-54-9
Pyridine, 2-[(2-dimethylamino)-2-thenylamino]-	—	Sodium selenate	13410-01-0
Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)	54-11-5	Sodium selenite	10102-18-8
Pyridine, 2-methyl-5-vinyl-	140-76-1	Sodium sulfide	1313-82-8
Pyridine, 4-nitro,-1-oxide	1124-33-0	Sodium tellurite	10102-20-2
Pyriminil	53558-25-1	Stannane, acetoxytriphenyl-	900-95-8
Pyrophosphoric acid, tetraethyl ester	—	Stannous flouride	7783-47-3
Pyrrole, tetrahydro-N-nitroso-	107-49-3	4,4'-Stilbenediol, alpha, alpha'-diethyl-	56-33-1
Pyrrolidine, 1-nitroso	930-55-2	Streptozotocin	18883-66-4
Quaternary ammonium compounds	—	Strobane	8001-50-1
Quinoline	91-22-5	Strontium sulfide	1314-96-1
Quinone	106-51-4	Strontium chromate	7789-06-2
Quintozene	82-68-8	Strychnidin-10-one-and salt	57-24-9
Radionuclides	—	Strychnine	57-24-9
Red squill (conc. above 30%)	507-60-8	Strychnine salts	—
Reserpine	50-55-5	Strychnine, sulfate	60-41-3
Resorcinol	108-46-3	Styrene	100-42-5
Saccharin and salts	81-07-2	Styrene oxide	96-09-3
Safrole	94-59-7	Sulfotep	3689-24-5
Salcomine	14167-18-1	Sulfoxide, 3-chloropropyl octyl	3569-57-1
Sarin	107-44-8	Sulfur dioxide	7446-09-5
Secondary lead: emission control dust/sludge from secondary lead smelting	—	Sulfuric acid	7664-93-9
Secondary lead: waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting	—	Sulfuric acid, dithallium(1+) salt	7446-18-6
Selenious acid	7783-00-8		10031-59-1
Selenious acid, dithallium(1+) salt	12039-52-0	Sulfuric acid, thallium(I) salt	7446-18-6
Selenium	7782-49-2	Sulfur monochloride	12771-08-3
Selenium compounds	—	Sulfur phosphide	1314-80-3
Selenium dioxide	7446-08-4	Sulfur selenide	7446-34-6
Selenium disulfide	7488-56-4	Sulfur tetrafluoride	7783-60-0
Selenium oxide	7446-08-4	Sulfur trioxide	7446-11-9
Selenium oxychloride	7791-23-3	2,4,5-T amines	1319-72-8
Selenium sulfide	7488-56-4		2008-46-0
Selenourea	630-10-4	2,4,5-T esters	3813-14-7
Semicarbazide hydrochloride	563-41-7		6369-96-6
Silane, (4-aminobutyl)diethoxymethyl-	3037-72-7		6369-97-7
Silver	7440-22-4	2,4,5-T salts	1928-47-8
Silver compounds	—	Tabun	2545-59-7
			27168-15-4
			61792-07-2
			13560-99-1
			77-81-6

Name	CAS Number	Name	CAS Number
2,3,6-TBA and related polychlorobenzoic acids, dimethylamine salts	50-31-7	2,4,5-TP	110-57-6
Tellurium	13494-80-9	Trans-1,4-dichlorobutene	1031-47-6
Tellurium hexafluoride	7783-80-4	Triamiphos	68-76-8
Terbufos	13071-79-9	Triaziquone	24017-47-8
Terephthalic acid	100-21-0	Triazofos	75-25-2
1,2,4,5-Tetrachlorobenzene	95-94-3	Tribromomethane	56-35-9
2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	Tributyltin	52-68-6
1,1,2,2-Tetrachloroethane	79-34-5	Trichlorfon	75-87-6
1,1,1,2-Tetrachloroethane	630-20-6	Trichloroacetaldehyde	76-02-8
Tetrachloroethylene	127-18-4	Trichloroacetyl chloride	120-82-1
2,3,4,6-Tetrachlorophenol	58-90-2	Trichloro(chloromethyl)silane	1558-25-4
Tetrachlorvinphos	961-11-5	Trichloro(dichlorophenyl)silane	27137-85-5
Tetraethyldithiopyrophosphate	3689-24-5	1,1,1-Trichloroethane	71-55-6
Tetraethyllead	78-00-2	1,1,2-Trichloroethane	79-00-5
Tetraethylpyrophosphate	107-49-3	Trichloroethene	79-01-6
Tetraethyltin	597-64-8	Trichloroethylene	79-01-6
Tetrahydrofuran	109-99-9	Trichloroethylsilane	115-21-9
Tetramethyllead	75-74-1	Trichloromethanesulfenyl chloride	594-42-3
Tetranitromethane	509-14-8	Trichloromethanethiol	75-70-7
Tetraphosphoric acid, hexaethyl ester	757-58-4	Trichloromonofluoromethane	75-69-4
Thallic oxide	1314-32-5	Trichloronate	327-98-0
Thallium(I) acetate	563-68-8	Trichlorophenol	25167-82-2
Thallium(I) acetic acid, salt	563-68-8	2,3,4-Trichlorophenol	15950-66-0
Thallium(I) carbonate	6533-73-9	2,3,5-Trichlorophenol	933-78-8
Thallium chloride	7791-12-0	2,3,6-Trichlorophenol	933-75-5
Thallium	7440-28-0	2,4,5-Trichlorophenol	95-95-4
Thallium compounds	—		88-06-2
Thallium(I) nitrate	10102-45-1	2,4,6-Trichlorophenol	88-06-2
Thallium oxide	1314-32-5	3,4,5-Trichlorophenol	609-19-8
Thallium(I) selenide	12039-52-0	(2,4,5-Trichlorophenoxy)acetic acid	93-76-5
Thallium selenite	12039-52-0	(2,4,5-Trichlorophenoxy)acetic acid esters	93-79-8
Thallium sulfate	7446-18-6	Trichlorophenylsilane	98-13-5
	10031-59-1	1,2,3-Trichloropropane	96-18-4
Thallos carbonate	6533-73-9	Triethanolamine dodecylbenzene sulfonate	27323-41-7
Thallos chloride	7791-12-0	Triethoxysilane	998-30-1
Thallos malonate	2757-18-8	Triethylamine	121-44-8
Thallos sulfate	7446-18-6	Trifluralin	1582-09-8
Thioacetamide	62-55-5	Trimethylamine	75-50-3
Thiocarbazine	2231-57-4	1,2,4-Trimethylbenzene	95-63-6
4,4'-Thiodianiline	139-65-1	Trimethylchlorosilane	75-77-4
Thiodiphosphoric acid, tetraethyl ester	3689-24-5	Trimethylolpropane phosphite	824-11-3
Thiofanox	39196-18-4	Trimethyltin chloride	1066-45-1
Thioimidodicarbonic diamide	541-53-7	sym-Trinitrobenzene	99-35-4
Thiomethanol	74-93-1	1,3,5-Trioxane, 2,4,6-Trimethyl-	123-63-7
Thionazin	297-97-2	Triphenyltin chloride	639-58-7
Thiophenol	108-98-5	Triphenyltin hydroxide (conc. above 10%)	76-87-9
Thiosemicarbazide	79-19-6	Tris(2-chloroethyl)amine	555-77-1
Thiourea	62-56-6	Tris(2,3-dibromopropyl) phosphate	126-72-7
Thiourea, (2-methylphenyl)-	614-78-8	Trypan blue	72-57-1
Thiram	137-26-8	Uracil mustard	66-75-1
Thorium dioxide	1314-20-1	Uranium peroxide	19525-15-6
Titanium tetrachloride	7550-45-0	Uranyl acetate	541-09-3
TOK (2,4 dichlorophenyl-p-nitrophenyl)	1836-75-5	Uranyl nitrate	36478-76-9
Toluene	108-88-3	Uranyl sulfate	1314-64-3
Toluenediamine	95-80-7	Urea, N-ethyl-N-nitroso-	759-73-9
	496-72-0	Urea, N-methyl-N-nitroso-	684-93-5
	823-40-5	Urethane	51-79-6
	25376-45-8	Valinomycin	2001-95-8
Toluene-2,4-diisocyanate	584-84-9	Vanadic acid, ammonium salt	7803-55-6
Toluene-2,6-diisocyanate	91-08-7	Vanadium (fume or dust)	7440-62-2
o-Toluidine hydrochloride	636-21-5	Vanadium oxide	1314-62-1
o-Toluidine	95-53-4	Vanadium pentoxide	1314-62-1
p-Toluidine	106-49-0	Vanadyl sulfate	27774-13-6
Toxaphene	8001-35-2		
2,4,5-TP esters	32534-95-5	Veterinary pharmaceuticals: distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds	—



Name	CAS Number	CAS Number	Name
Veterinary pharmaceuticals: residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	—	—	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.
Veterinary pharmaceuticals: wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	—	—	Cyanidation wastewater tailing pond sediment from mineral metals recovery operations.
Vinyl acetate	108-05-4	—	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulation containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)
Vinyl acetate monomer	108-05-4	—	Leachate resulting from the treatment, storage, or disposal of wastes classified by more than one waste code under Subpart D, or from a mixture of wastes classified under Subparts C and D of this part. (Leachate resulting from the management of one or more of the following EPA Hazardous Wastes and no other hazardous wastes retains its hazardous waste code(s): F020, F021, F022, F023, F026, F027 and/or F028.)
Vinyl chloride	75-01-4	—	Oil spill cleanup residue which: A. is contaminated beyond saturation; or B. the generator fails to demonstrate that the spill material was not one of the listed hazardous waste oils.
Vinylidene chloride	75-35-4	—	Plating sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process.
Warfarin	81-81-2	—	Process wastes, including but not limited to, distillation, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in 261.31 or 261.32).
Warfarin sodium	129-06-6	—	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.
Wood preservation: bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosole and/or pentachlorophenol	—	—	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.
Xylene	1330-20-7	—	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.
Xylene (mixed isomers)	1330-20-7	—	Spent cyanide bath solutions from mineral metals recovery operations.
m-Xylene	108-38-3	—	Spent cyanide plating bath solutions from electroplating operations.
o-Xylene	95-47-6	—	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.
p-Xylene	106-42-3	—	
Xylenes	1330-20-7	—	
Xylenol	1300-71-6	—	
2,6-Xyldine	87-62-7	—	
Xylylene dichloride	28347-13-9	—	
Zinc (fume and dust)	7440-66-6	—	
Zinc acetate	557-34-6	—	
Zinc ammonium chloride	14639-97-5	—	
	14639-98-6	—	
	52628-25-8	—	
Zinc and compounds	—	—	
Zinc borate	1332-07-6	—	
Zinc bromide	7699-45-8	—	
Zinc carbonate	3486-35-9	—	
Zinc chloride	7646-85-7	—	
Zinc cyanide	557-21-1	—	
Zinc, dichloro(4,4-dimethyl-5((((methylamino)carbonyl)oxy)im	58270-08-9	—	
Zinc fluoride	7783-49-5	—	
Zinc formate	557-41-5	—	
Zinc hydrosulfite	7779-86-4	—	
Zinc nitrate	7779-88-6	—	
Zinc phenolsulfonate	127-82-2	—	
Zinc phosphide	1314-84-7	—	
Zinc phosphide, when present at concentration greater than 10 percent	1314-84-7	—	
Zinc silicofluoride	16871-71-9	—	
Zinc sulfate	7733-02-0	—	
Zineb	12122-67-7	—	
Zirconium nitrate	13746-89-9	—	
Zirconium potassium fluoride	16923-95-8	—	
Zirconium sulfate	14644-61-2	—	
Zirconium tetrachloride	10026-11-6	—	
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION			
LIST OF HAZARDOUS SUBSTANCES			
(LISTED BY CAS NUMBER)			
CAS Number	Name		
—	Bottom sludge generated from the processing, blending, and treatment of waste oil in waste oil processing facilities	—	

CAS Number	Name	CAS Number	Name
—	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	—	Waste automotive crankcase and lubricating oils from automotive service and gasoline stations, truck terminals, and garages
—	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of 10 percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004 and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	—	Waste oil and bottom sludge generated by gasoline stations when gasoline and oil tanks are tested, cleaned, or replaced
—	The following spent halogenated solvents; tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of 10 percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	—	Waste oil and bottom sludge generated from tank cleanouts from residential/commercial fuel oil tanks
—	The following spent non-halogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of 10 percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	—	Waste petroleum oil generated when tank trucks or other vehicles or mobile vessels are cleaned, including, but not limited to, oily ballast water from product transport units of boats, barges, ships, or other vessels
—	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of 10 percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	—	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.
—	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of 10 percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	—	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)
—	The following used and unused waste oils: metal working oils; turbine lubricating oils; diesel lubricating oils; and quenching oils	—	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)
		—	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating carbon steel, and (6) chemical etching and milling of aluminum.
		—	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.
		—	3-(alpha-acetonyl benzyl)-4-hydroxy-coumarin and salts
		—	Antimony compounds
		—	Arsenic compounds
		—	Benzene, 1-methyl-1,2,4-dinitro-
		—	Benzene, 1,2-methylenedioxy-4-propyl
		—	1,2-Benzisothiazolin-3-one, 1,1-dioxide, and salts
		—	Butanoic acid, 4-[bis(2-chloroethyl)]
		—	Cadmium compounds
		—	Carbamimidoseleonic acid

CAS Number	Name	CAS Number	Name
—	Chlordane, technical	—	Inorganic chemicals: chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production
—	Chlorinated benzenes	—	Inorganic chemicals: wastewater treatment sludge from the mercury cell process in chlorine production
—	Chlorinated ethanes	—	Inorganic pigments: oven residue from the production of chrome oxide green pigments
—	Chlorinated naphthalene	—	Inorganic pigments: wastewater treatment sludge from the production of chrome green pigments
—	Chlorinated phenols	—	Inorganic pigments: wastewater treatment sludge from the production of chrome yellow and orange pigments
—	Chloroalkyl Ethers	—	Inorganic pigments: wastewater treatment sludge from the production of iron blue pigments
—	4-Chloro-m-cresol epoxy-	—	Inorganic pigments: wastewater treatment sludge from the production of molybdate orange pigments
—	Chromium compounds	—	Inorganic pigments: wastewater treatment sludge from the production of zinc yellow pigments
—	Coke Oven Emissions	—	Iron and steel: emission control dust/sludge from the primary production of steel in electric furnaces
—	Coking: ammonia still lime sludge from coking operations	—	Iron and steel: spent pickle liquor generated by steel finishing operations of facilities with the iron and steel industry (SIC Codes 331 and 332)
—	Coking: decanter tank far sludge from coking operations	—	Lead compounds
—	Copper compounds	—	Methylchloroform
—	Cresol	—	Naphthalene compounds
—	Cresols	—	Nickel compounds
—	Cyanide compounds	—	Nicotine salts
—	Cyanides (soluble salts and complexes), not otherwise specified	—	Nitrogen (II) oxide
—	1,4-Cyclohexadienedione	—	Nitrogen (IV) oxide
—	2,4-D, salts and esters	—	Nitrophenols
—	DDT metabolites	—	Nitrosamines
—	m-Dichlorobenzene	—	N-Nitroso-N-propylamine
—	2,4-Dichlorophenoxyacetic acid, salts and esters	—	5-Norbornene-2, 3-dimethanol, 1,4,5,6,7,7-hexachloro, cyclic sulfite
—	4,6-Dinitro-o-cresol and salts	—	Organic chemicals: heavy ends from the fractionation column in ethyl chloride production
—	Dithiopyrophosphoric acid, tetraethyl ester	—	Organic chemicals: aqueous spent animony catalyst waste from fluoromethanes production
—	EBDCs	—	Organic chemicals: bottom stream from the acetonitrile column in the production of acrylonitrile
—	Endosulfan metabolites	—	Organic chemicals: bottom stream from the wastewater stripper in the production of acrylonitrile
—	Endrin metabolites	—	Organic chemicals: bottoms from the acetonitrile purification column in the production of acrylonitrile
—	1,2-Ethanedithiylbiscarbamodithioic acid	—	Organic chemicals: centrifuge and distillation residues from toluene diisocyanate production
—	Ethenamine, N-methyl-N-nitroso-	—	Organic chemicals: column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDHM) from carboxylic acid hydrazines
—	Ethene, trans-1,1-dichloro-	—	Organic chemicals: column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene
—	Ethylenebis(dithiocarbamic acid)		
—	Explosives: pink/red water from TNT operations		
—	Explosives: spent carbon from the treatment of wastewater containing explosives		
—	Explosives: wastewater treatment sludges from the manufacturing and processing of explosives		
—	Explosives: wastewater treatment sludges from the manufacturing formulation and loading of lead-based initiating compounds		
—	Ferroalloys: emission control dust or sludge from ferrochromium production		
—	Ferroalloys: emission control dust or sludge from ferrochromiumsilicon		
—	Fluminic acid, mercury (III) salt		
—	2-Furancarbo-carboxaldehyde		
—	Haloethers		
—	Halomethanes		
—	Heptachlor metabolites		
—	Hexachlorohexahydro-exo,exo-dimethanonaphthalene		
—	Ink formulation: solvent washes & sludges, caustic wastes & sludges or water washes & sludges from cleaning tubs & equipment used in the formulation of ink from pigments/driers/soaps & stabilizers containing Cr & Pb		
—	Inorganic arsenicals (above 0.5% active ingredients)		
—	Inorganic chemicals: brine purification muds from the mercury cell process in chlorine production where separately prepurified brine is not used.		

CAS Number	Name	CAS Number	Name
—	Organic chemicals: combined wastewater streams generated from nitrobenzene/aniline production	—	Organic chemicals: organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine
—	Organic chemicals: condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	—	Organic chemicals: process residues from aniline extraction from the production of aniline
—	Organic chemicals: condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDHM) from carboxylic acid hydrazides	—	Organic chemicals: product washwaters from the production of dinitrotoluene via nitration of toluene
—	Organic chemicals: condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	—	Organic chemicals: reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene
—	Organic chemicals: distillation bottom tars from the production of phenol/acetone from cumene	—	Organic chemicals: separated gaseous stream from the reactor product washing step in the production of chlorobenzenes
—	Organic chemicals: distillation bottoms from aniline production	—	Organic chemicals: spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene
—	Organic chemicals: distillation bottoms from the production of 1,1,1-trichloroethane	—	Organic chemicals: spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane
—	Organic chemicals: distillation bottoms from the production of acetaldehyde from ethylene	—	Organic chemicals: spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides
—	Organic chemicals: distillation bottoms from the production of anhydride from ortho-xylene	—	Organic chemicals: still bottoms from the distillation of benzyl chloride
—	Organic chemicals: distillation bottoms from the production of nitrobenzene by the nitration of benzene	—	Organic chemicals: still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene
—	Organic chemicals: distillation bottoms from the production of phthalic anhydride from naphthalene	—	Organic chemicals: stripping still tails from the production of methyl ethyl pyridines
—	Organic chemicals: distillation light ends from the production of phthalic anhydride from naphthalene	—	Organic chemicals: vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene
—	Organic chemicals: distillation of light ends from the production of phthalic anhydride from ortho-xylene	—	Organic chemicals: waste from the product stream stripper in the production of 1,1,1-trichloroethane
—	Organic chemicals: distillation or fractionation column bottoms from the production of chlorobenzenes	—	Organic chemicals: wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene
—	Organic chemicals: distillation side cuts from the production of acetaldehyde from ethylene	—	Organorhodium Complex (PMN-82-147)
—	Organic chemicals: heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	—	2H-1,3,2-Oxazaphosphorine, 2 [bis (2-chloroethyl) amino] benzene-
—	Organic chemicals: heavy ends (still bottoms) from the purification column in the production of epichlorohydrin	—	Pesticides: 2,6-Dichlorophenol waste from the production of 2,4-D
—	Organic chemicals: heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	—	Pesticides: baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts
—	Organic chemicals: heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	—	Pesticides: by-product salts generated in the production of MSMA and cacodylic acid
—	Organic chemicals: heavy ends from the heavy ends column from the product of 1,1,1-trichloroethane	—	Pesticides: filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate
—	Organic chemicals: heavy ends or distillation residues from the production of carbon tetrachloride	—	Pesticides: filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane
		—	Pesticides: filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts

CAS Number	Name	CAS Number	Name
—	Pesticides: heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	—	Primary lead: surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities
—	Pesticides: process wastewater (including supernates, filtrates, and washwaters), from the production of ethylenebisdithiocarbamic acid and its salt	—	Primary zinc: sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production
—	Pesticides: reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts	—	Pyridine, 2-[(2-dimethylamino)-2-thenylamino]-
—	Pesticides: spent absorbent and wastewater separator solids from the production of methyl bromide	—	Pyrophosphoric acid, tetraethyl ester
—	Pesticides: still bottoms from toluene reclamation distillation in the production of disulfoton	—	Quaternary ammonium compounds
—	Pesticides: untreated process wastewater from the production of toxaphene	—	Radionuclides
—	Pesticides: untreated wastewater from the production of 2,4-D	—	Secondary lead: emission control dust/sludge from secondary lead smelting
—	Pesticides: vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	—	Secondary lead: waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting
—	Pesticides: wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane	—	Selenium compounds
—	Pesticides: wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide	—	Silver compounds
—	Pesticides: wastewater from the washing and stripping of phorate production	—	Strychnine salts
—	Pesticides: wastewater treatment sludge from the production of chlordane	—	Thallium compounds
—	Pesticides: wastewater treatment sludge from the production of phorate	—	2,4,5-TP
—	Pesticides: wastewater treatment sludge from the production of toxaphene	—	Veterinary pharmaceuticals: distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds
—	Pesticides: wastewater treatment sludges from the production of disulfoton	—	Veterinary pharmaceuticals: residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds
—	Pesticides: wastewater treatment sludges generated in the production of creosote	—	Veterinary pharmaceuticals: wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds
—	Petroleum refining: API separator sludge from the petroleum refining industry	—	Wood preservation: bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosole and/or pentachlorophenol
—	Petroleum refining: dissolved air flotation (DAF) float from the petroleum refining industry	50-00-0	Zinc and compounds
—	Petroleum refining: heat exchanger bundle cleaning sludge from the petroleum refining industry	50-00-0	Formaldehyde
—	Petroleum refining: slop oil emulsion solids from the petroleum refining industry	50-07-7	Methylene oxide
—	Petroleum refining: tank bottoms (lead) from the petroleum refining industry	—	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl,[1aS-(1aalpha,8beta,-8aalpha,8balpha)]-
—	Phenol,2,4-dinitro-6-methyl-salts	50-07-7	Mitomycin C
—	Phthalate esters	50-14-6	Ergocalciferol
—	Polychlorinated biphenyls (PCBs)	50-18-0	Cyclophosphamide
—	Polychlorinated terphenyls	50-29-3	Dichloro diphenyl trichloroethane
—	Polynuclear aromatic hydrocarbons	50-31-7	2,3,6-TBA and related polychlorobenzoic acid, dimethylamine salts
—	Primary aluminum: spent potliners from primary aluminum reduction	50-32-8	Benzo[a]pyrene
—	Primary copper: acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production	50-55-5	11,17-Dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-methyl ester, (3beta,16beta,17alpha,18beta,20alpha)-yohimban-16-carboxylic acid
		50-55-5	Reserpine
		51-21-8	Fluorouracil
		51-28-5	2,4-Dinitrophenol
		51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino) ethyl]-
		51-43-4	Epinephrine
		51-75-2	Mechlorethamine
		51-75-2	Nitrogen mustard
		51-79-6	Ethyl carbamate
		51-79-6	Urethane

CAS Number	Name	CAS Number	Name
51-83-2	Carbachol chloride	62-53-3	Benzenamine
52-68-6	Trichlorfon	62-55-5	Ethanethioamide
52-85-7	Famphur	62-55-5	Thioacetamide
52-85-7	Phosphorothioic acid, O,O-dimethyl-O-[p-((di-methylamino)-sulfonyl)phenyl]ester	62-56-6	Carbamide, thio-
53-70-3	1,2:5,6-Dibenzanthracene	62-56-6	Thiourea
53-70-3	Dibenz[a,h]anthracene	62-73-7	Dichlorvos
53-70-3	Dibenzo[a,h]anthracene	62-74-8	Fluoroacetic acid, sodium salt
53-96-3	2-Acetylaminofluorene	62-74-8	Sodium fluoroacetate
53-96-3	N-2-Fluorenylacetamide	62-74-8	Sodium monofluoroacetate
54-11-5	Nicotine	62-75-9	Dimethylnitrosamine
54-11-5	Pyridine, (s)-3-(1-methyl-2-pyrrolidinyl)	62-75-9	Nitrosodimethylamine
54-62-6	Aminopterin	63-25-2	Carbaryl
55-18-5	N-Nitrosodiethylamine	64-00-6	Phenol, 3-(1-methylethyl)-, methylcarbamate
55-21-0	Benzamide	64-18-6	Formic acid
55-38-9	Fenthion (conc. above 0.5%)	64-18-6	Methanoic acid
55-63-0	Nitroglycerin	64-19-7	Acetic acid
55-91-4	Isoflurophate	64-67-5	Diethyl sulfate
56-04-2	Methylthiouracil	64-86-8	Colchicine
56-23-5	Carbon tetrachloride	65-30-5	Nicotine sulfate
56-25-7	Cantharidin	65-85-0	Benzoic acid
56-33-1	4,4'-Stilbenediol, alpha, alpha'-diethyl-	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloro-ethyl)amino]-
56-35-9	Tributyltin	66-75-1	Uracil mustard
56-38-2	Parathion	66-81-9	Cycloheximide
56-49-5	3-Methylcholanthrene	67-56-1	Methanol
56-53-1	Diethylstilbestrol	67-63-0	Isopropyl alcohol (mfg-strong acid process)
56-55-3	1,2-Benzanthracene	67-64-1	Acetone
56-55-3	Benz[a]anthracene	67-64-1	2-Propanone
56-55-3	Benzo[a]anthracene	67-66-3	Chloroform
56-72-4	Coumephos	67-66-3	Methane, trichloro-
57-12-5	Cyanide	67-72-1	Hexachloroethane
57-14-7	Dimethylhydrazine	68-76-8	Triaziquone
57-24-9	Strychnidin-10-one-and salt	70-25-7	N-Methyl-N'-nitro-N-nitrosoguanidine
57-24-9	Strychnine	70-30-4	Hexachlorophene
57-47-6	Physostigmine	70-30-4	2,2'-Methylenebis (3,4,6-trichlorophenol)
57-57-8	beta-Propiolactone	70-69-9	p-Aminopropiophenone
57-64-7	Physostigmine, salicylate (1:1)	71-36-3	n-Butyl alcohol
57-74-9	Chlordane	71-43-2	Benzene
57-74-9	Chlordane (Technical Mixture and Metabolites)	71-55-6	1,1,1-Trichloroethane
57-74-9	Chlordane, alpha & gamma isomers	71-63-6	Digitoxin
57-97-6	7,12-Dimethylbenz[a]anthracene	72-20-8	Endrin
58-36-6	10, 10'-Oxybisphenoxarsine	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-
58-89-9	gamma-BHC	72-43-5	Methoxychlor
58-89-9	Hexachlorocyclohexane (gamma isomer)	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-
58-89-9	Lindane	72-54-8	Dichlorodiphenyldichloroethane
58-90-2	2,3,4,6-Tetrachlorophenol	72-55-9	DDE (1,1 Dichloro-2,2-bis(p-chlorophenyl)ethylene)
59-50-7	4-Chloro-m-cresol	72-57-1	Trypan blue
59-50-7	P-Chloro-m-cresol	74-83-9	Methyl bromide
59-88-1	Phenylhydrazine hydrochloride	74-87-3	Methyl chloride
59-89-2	N-Nitrosomorpholine	74-88-4	Methyl iodide
60-00-4	Ethylenediamine-tetraacetic acid (EDTA)	74-89-5	Monomethylamine
60-09-3	4-Aminoazobenzene	74-90-8	Hydrocyanic acid
60-09-3	C.I. Solvent Yellow 1	74-90-8	Hydrogen cyanide
60-11-7	Dimethylaminoazobenzene	74-93-1	Methanethiol
60-29-7	Ethyl ether	74-93-1	Methyl mercaptan
60-34-4	Methyl hydrazine	74-93-1	Thiomethanol
60-35-5	Acetamide	74-95-3	Methylene bromide
60-41-3	Strychnine, sulfate	75-00-3	Chloroethane
60-51-5	Dimethoate	75-01-4	Vinyl chloride
60-57-1	Dieldrin	75-04-7	Monoethylamine
61-82-5	Amitrole	75-05-8	Acetonitrile
62-38-4	Phenylmercuric acetate	75-05-8	Ethanenitrile
62-44-2	N-4-Ethoxyphenyl acetamide	75-07-0	Acetaldehyde
62-44-2	Phenacetin		
62-50-0	Ethyl methanesulfonate		
62-53-3	Aniline		



CAS Number	Name	CAS Number	Name
75-07-0	Ethanal	78-97-7	Lactonitrile
75-09-2	Dichloromethane	78-99-9	1,1-Dichloropropane
75-09-2	Methylene chloride	79-00-5	1,1,2-Trichloroethane
75-15-0	Carbon bisulfide	79-01-6	Trichloroethene
75-15-0	Carbon disulfide	79-01-6	Trichloroethylene
75-20-7	Calcium carbide	79-06-1	Acrylamide
75-21-8	Ethylene oxide	79-09-4	Propionic acid
75-21-8	Oxirane	79-10-7	Acrylic acid
75-25-2	Bromoform	79-11-8	Chloroacetic acid
75-25-2	Tribromomethane	79-19-6	Thiosemicarbazide
75-27-4	Dichlorobromomethane	79-21-0	Peracetic acid
75-34-3	1,1-Dichloroethane	79-22-1	Methyl chlorocarbonate
75-34-3	Ethylidene dichloride	79-31-2	iso-Butyric acid
75-35-4	1,1-Dichloroethylene	79-34-5	1,1,2,2-Tetrachloroethane
75-35-4	Vinylidene chloride	79-44-7	Dimethylcarbamyl chloride
75-36-5	Acetyl chloride	79-46-9	2-Nitropropane
75-36-5	Ethanoyl chloride	80-05-7	4,4'-Isopropylidenediphenol
75-44-5	Carbonic dichloride	80-15-9	Cumene hydroperoxide
75-44-5	Carbonyl chloride	80-15-9	alpha, alpha-Dimethylbenzylhydroperoxide
75-44-5	Phosgene	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-
75-50-3	Trimethylamine	80-62-6	Methyl acrylate
75-55-8	2-Methylaziridine	80-63-7	Methyl 2-chloroacrylate
75-55-8	Propyleneimine	81-07-2	1,2-Benzisothiazolin-3-one, 1,1-dioxide
75-55-8	1,2-Propylenimine	81-07-2	Saccharin and salts
75-56-9	Propylene oxide	81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3(3-oxo-1-phenyl-butyl)-, and salts, when present at concentrations greater than 0.3%
75-60-5	Cacodylic acid		
75-64-9	tert-Butylamine	81-81-2	Warfarin
75-65-0	tert-Butyl alcohol	81-88-9	C.I. Food Red 15
75-69-4	Trichloromonofluoromethane	82-28-0	1-Amino-2-methylantraquinone
75-70-7	Trichloromethanethiol	82-66-6	Diphacinone
75-71-8	Dichlorodifluoromethane	82-68-8	Pentachloronitrobenzene
75-74-1	Tetramethyllead	82-68-8	Quintozone
75-77-4	Trimethylchlorosilane	83-26-1	Pindone (conc. above 3%)
75-78-5	Dimethyldichlorosilane	83-32-9	Acenaphthene
75-79-6	Methyltrichlorosilane	84-66-2	Diethyl phthalate
75-86-5	Acetone cyanohydrin	84-74-2	n-Butyl phthalate
75-86-5	2-Methylactonitrile	84-74-2	di-n-butyl phthalate
75-87-6	Trichloroacetaldehyde	85-00-7	Diquat
75-99-0	2,2-Dichloropropionic acid	85-01-8	Phenanthrene
76-01-7	Pentachloroethane	85-44-9	1,2-Benzenedicarboxylic acid anhydride
76-02-8	Trichloroacetyl chloride	85-44-9	Phthalic anhydride
76-13-1	Freon 113	85-68-7	Butyl benzyl phthalate
76-44-8	Heptachlor	86-30-6	N-Nitrosodiphenylamine
76-44-8	Heptachlor (and epoxide)	86-50-0	Azinphos-methyl
76-44-8	4,7-Methano-1 H-indene,1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	86-73-7	Fluorene
76-87-9	Triphenyltin hydroxide (conc. above 10%)	86-88-4	Antu
77-47-4	Hexachlorocyclopentadiene	86-88-4	alpha-Naphthylthiourea
77-78-1	Dimethyl sulfate	87-62-7	2,6-Xylidine
77-81-6	Tabun	87-65-0	2,6-Dichlorophenol
78-00-2	Tetraethyllead	87-68-3	Hexachloro-1,3-butadiene
78-34-2	Dioxathion	87-68-3	Hexachlorobutadiene
78-53-5	Amiton	87-68-5	Pentachlorophenol
78-59-1	Isophorone	88-05-1	Aniline, 2,4,6-trimethyl-
78-71-7	Oxetane, 3,3-bis(chloromethyl)-	88-06-2	2,4,5-Trichlorophenol
78-79-5	Isoprene	88-06-2	2,4,6-Trichlorophenol
78-81-9	iso-Butylamine	88-72-2	o-Nitrotoluene
78-82-0	Isobutyronitrile	88-75-5	2-Nitrophenol
78-83-1	Isobutyl alcohol	88-75-5	o-Nitrophenol
78-84-2	Isobutyraldehyde	88-85-7	Dinoseb
78-87-5	Propylene dichloride	88-85-7	Phenol, 2,4-dinitro-6-(1-methylpropyl)
78-88-6	2,3-Dichloropropene	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro
78-92-2	sec-Butyl alcohol	88-89-1	Picric acid
78-93-3	2-Butanone	90-04-0	o-Anisidine
78-93-3	Methyl ethyl ketone	90-43-7	2-Phenylphenol
78-93-4	Methyl vinyl ketone	90-94-8	Michler's ketone

CAS Number	Name	CAS Number	Name
91-08-7	Toluene-2,6-diisocyanate	99-59-2	5-Nitro-o-anisidine
91-20-3	Naphthalene	99-65-0	m-Dinitrobenzene
91-22-5	Quinoline	99-98-9	Dimethyl-p-phenylenediamine
91-29-3	Naphthylamine	99-99-0	p-Nitrotoluene
91-58-7	2-Chloronaphthalene	100-01-6	Benzenamine, 4-nitro-
91-59-8	2-Naphthylamine	100-01-6	p-Nitroaniline
91-80-5	Methapyrilene	100-02-7	p-Nitrophenol
91-94-1	Dichlorobenzidine	100-14-1	Benzene, 1-(chloromethyl)-4-nitro-
92-52-4	Biphenyl	100-21-0	Terephthalic acid
92-67-1	4-Aminobiphenyl	100-25-4	p-Dinitrobenzene
92-87-5	Benzidine	100-41-4	Ethylbenzene
92-93-3	4-Nitrobiphenyl	100-42-5	Styrene
93-72-1	Silvex	100-44-7	Benzyl chloride
93-76-5	(2,4,5-Trichlorophenoxy)acetic acid	100-47-0	Benzonitrile
93-79-8	(2,4,5-Trichlorophenoxy)acetic acid esters	100-75-4	N-Nitrosopiperidine
94-11-1	2,4-D Esters	101-14-4	4,4'-Methylenebis(2-chloroaniline)
94-11-1	2,4-D, isopropyl ester	101-55-3	4-Bromophenyl phenyl ester
94-36-0	Benzoyl peroxide	101-61-1	4,4'-Methylenebis(N,N-dimethyl)benzenamine
94-58-6	Benzene, 1,2-methylenedioxy-4-propenyl-	101-68-8	Methylenebis(phenylisocyanate)
94-58-6	1,3-Benzodioxole, 5-propyl-	101-77-9	4,4'-Methylenedianiline
94-58-6	Dihydrosafrole	101-80-4	4,4'-Diaminodiphenyl ether
94-59-7	Benzene, 1,2-methylenedioxy-4-allyl-	102-36-3	Isocyanic acid, 3,4-dichlorophenyl ester
94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-	103-23-1	Bis(2-ethylhexyl) adipate
94-59-7	Safrole	103-85-5	Phenylthiourea
94-75-7	(2,4-Dichlorophenoxy)acetic acid	104-94-9	p-Anisidine
94-79-1	2,4-D Esters	105-46-4	sec-Butyl acetate
94-80-4		105-67-9	2,4-Dimethylphenol
94-80-4	2,4-D, mixed butyl esters	106-42-3	p-Xylene
95-47-6	o-Xylene	106-44-5	p-Cresol
95-48-7	o-Cresol	106-46-7	1,4-Dichlorobenzene
95-50-1	1,2-Dichlorobenzene	106-46-7	p-Dichlorobenzene
95-50-1	o-Dichlorobenzene	106-47-8	p-Chloroaniline
95-53-4	2-Amino-1-methylbenzene	106-49-0	4-Amino-1-methylbenzene
95-53-4	Benzenamine, 2-methyl-	106-49-0	Benzenamine, 4-methyl-
95-53-4	o-Toluidine	106-49-0	p-Toluidine
95-57-8	o-Chlorophenol	106-50-3	p-Phenylenediamine
95-63-6	1,2,4-Trimethylbenzene	106-51-4	p-Benzoquinone
95-80-7	Benzenediamine, ar-methyl-	106-51-4	2,5-Cyclohexadiene-1,4-dione
95-80-7	2,4-Diaminotoluene	106-51-4	Quinone
95-80-7	Toluenediamine	106-88-7	1,2-Butylene oxide
95-94-3	1,2,4,5-Tetrachlorobenzene	106-89-8	Epichlorohydrin
95-95-4	2,4,5-Trichlorophenol	106-93-4	Ethylene dibromide
96-09-3	Styrene oxide	106-96-7	Propargyl bromide
96-12-8	1,2-Dibromo-3-chloropropane	106-99-0	1,3-Butadiene
96-18-4	1,2,3-Trichloropropane	107-02-8	Acrolein
96-33-3	Methyl acrylate	107-05-1	Allyl chloride
96-45-7	2-Imidazolidinethione	107-06-2	1,2-Dichloroethane
97-18-7	Bithionol	107-06-2	Ethylene dichloride
97-56-3	C.I. Solvent Yellow 3	107-10-8	1-Propanamine
97-63-2	Ethyl Methacrylate	107-10-8	n-Propylamine
97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester	107-12-0	Ethyl cyanide
98-01-1	2-Furancarboxaldehyde	107-12-0	Propanenitrile
98-01-1	Furfural	107-13-1	Acrylonitrile
98-05-5	Benzenearsonic acid	107-13-1	2-Propenenitrile
98-07-7	Benzotrichloride	107-15-3	Ethylenediamine
98-09-9	Benzenesulfonyl chloride	107-16-4	Formaldehyde cyanohydrin
98-13-5	Trichlorophenylsilane	107-18-6	Allyl alcohol
98-16-8	Benzenamine, 3-(trifluoromethyl)-	107-18-6	2-Propen-1-ol
98-82-8	Cumene	107-19-7	Propargyl alcohol
98-86-2	Acetophenone	107-20-0	Chloroacetaldehyde
98-87-3	Benzal chloride	107-21-1	Ethylene glycol
98-88-4	Benzoyl chloride	107-30-2	Chloromethyl methyl ether
98-95-3	Nitrobenzene	107-44-8	Sarin
99-08-01	m-Nitrotoluene	107-49-3	Diphosphoric acid, tetraethyl ester
99-35-4	sym-Trinitrobenzene	107-49-3	Pyrrrole, tetrahydro-N-nitroso-
99-55-8	5-Nitro-o-toluidine	107-49-3	Tetraethylpyrophosphate

CAS Number	Name	CAS Number	Name
107-92-6	Butyric acid	117-84-0	1,2-Benzenedicarboxylic acid, di-n-octyl ester
108-05-4	Vinyl acetate	117-84-0	Di-n-octyl phthalate
108-05-4	Vinyl acetate monomer	118-74-1	Hexachlorobenzene
108-10-1	Methyl isobutyl ketone	119-38-0	Isopropylmethylpyrazolyl dimethylcarbamate
108-23-6	Isopropyl chloroformate	119-90-4	3,3'-Dimethoxybenzidine
108-24-7	Acetic anhydride	119-93-7	3,3'-Dimethylbenzidine
108-31-6	Maleic anhydride	120-12-7	Anthracene
108-38-3	m-Xylene	120-58-1	Isosafrole
108-39-4	m-Cresol	120-71-8	p-Cresidine
108-46-3	1,3-Benzenediol	120-80-9	Catechol
108-46-3	Resorcinol	120-82-1	1,2,4-Trichlorobenzene
108-60-1	Bis(2-chloroisopropyl)ether	120-83-2	2,4-Dichlorophenol
108-60-1	Bis(2-chloro-1-methylethyl)ether	121-14-2	Benzene, 1-methyl-2,4-dinitro-
108-60-1	Dichloroisopropyl ether	121-14-2	2,4-Dinitrotoluene
108-60-1	Propane, 2,2'-oxybis(2-chloro-	121-21-1	Pyrethrins
108-62-3	Metaldehyde	121-29-9	
108-88-3	Toluene	121-44-8	Triethylamine
108-90-7	Chlorobenzene	121-69-7	N,N-Dimethylaniline
108-91-8	Cyclohexylamine	121-75-5	Malathion
108-94-1	Cyclohexanone	122-09-8	Benzeneethanamine, alpha, alpha-dimethyl
108-95-2	Phenol	122-09-8	alpha, alpha-Dimethylphenethylamine
108-98-5	Benzenethiol	122-09-08	Ethanamine, 1,1-dimethyl-2-phenyl-
109-98-5	Thiophenol	122-10-1	Bomyl (conc. above 1%)
109-06-8	2-Picoline	122-14-5	Fenitrothion
109-61-5	Propyl chloroformate	122-39-4	Diphenylamine
109-73-9	Butylamine	122-66-7	Diphenylhydrazine
109-77-3	Melonitrile	122-66-7	1,2-Diphenylhydrazine
109-77-3	Propanedinitrile	123-31-9	Hydroquinone
109-86-4	2-Methoxyethanol	123-33-1	1,2-Dihydro-3,6-pyrazinedione
109-89-7	Diethylamine	123-33-1	Maleic hydrazide
109-99-9	Tetrahydrofuran	123-38-6	Propionaldehyde
110-00-9	Furan	123-62-6	Propionic anhydride
110-00-9	Furfuran	123-63-7	Paraldehyde
110-16-7	Maleic acid	123-63-7	1,3,5-Trioxane, 2,4,6-Trimethyl-
110-17-8	Fumaric acid	123-72-8	Butyraldehyde
110-19-0	iso-Butyl acetate	123-86-4	Butyl acetate
110-57-6	Trans-1,4-dichlorobutene	123-91-1	1,4-Dioxane
110-75-8	2-Chloroethyl vinyl ether	123-92-2	iso-Amyl acetate
110-80-5	2-Ethoxyethanol	124-04-9	Adipic acid
110-82-7	Benzene, hexahydro	124-40-3	Dimethylamine
110-82-7	Cyclohexane	124-41-4	Sodium methylate
110-86-1	Pyridine	124-48-1	Chlorodibromomethane
110-89-4	Piperidine	124-65-2	Sodium cacodylate
111-42-2	Diethanolamine	124-87-8	Picrotoxin
111-44-4	Dichloroethyl ether	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
111-54-6	Ethylenebisdithiocarbamic acid, salts & esters	126-72-7	Tris(2,3-dibromopropyl) phosphate
111-69-3	Adiponitrile	126-98-7	Methacrylonitrile
111-91-1	Bis(2-chloroethoxy) methane	126-98-7	2-Propenitrile, 2-methyl-
111-91-1	Dichloromethoxy ethane	126-99-8	2-Chloro, 1,3-butadiene
111-91-1	Ethane, 1,1'-[methylenebis(oxy)] (2-chloro-	126-99-8	Chloroprene
112-56-1	Lethane 384 (conc. above 10%)	127-18-4	Perchloroethylene
114-26-1	Propoxur	127-18-4	Tetrachloroethylene
115-02-6	Azaserine	127-82-2	Zinc phenolsulfonate
115-07-1	Propylene (Propene)	128-66-5	C.I. Vat Yellow 4
115-21-9	Trichloroethylsilane	129-00-0	Pyrene
115-26-4	Dimefox	129-06-6	Warfarin sodium
115-29-7	Endosulfan	130-15-4	1,4-Naphthalenedione
115-32-2	Dicofol	130-15-4	1,4-Naphthoquinone
115-32-2	Kelthane	131-11-3	Dimethyl phthalate
115-90-2	Fensulfthion	131-74-8	Ammonium picrate
116-06-3	Aldicarb	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
116-29-0	Chloranil	132-64-9	Dibenzofuran
117-52-2	Coumafuryl (conc. above 3%)	133-06-2	Captan
117-79-3	2-Aminoanthraquinone	133-90-4	Chloramben
117-80-6	Dichlone	134-29-2	o-Anisidine hydrochloride
117-81-7	Bis(2-ethylhexyl)phthalate	134-32-7	1-Naphthylamine

CAS Number	Name	CAS Number	Name
135-20-6	Cupferron	309-00-2	Aldrin
137-26-8	Thiram	311-45-5	Diethyl-p-nitrophenyl phosphate
139-13-9	Nitrilotriacetic acid	315-18-4	Mexacarbate
139-65-1	4,4'-Thiodianiline	316-42-7	Emetine, dihydrochloride
140-29-4	Benzyl cyanide	319-84-6	alpha-BHC
140-56-7	Fenaminosulf (conc. above 5%)	319-85-7	beta-BHC
140-76-1	Pyridine, 2-methyl-5-vinyl-	319-86-8	delta-BHC
140-88-5	Ethyl acrylate	327-98-0	Trichloronate
140-88-5	2-Propenoic acid, ethyl ester	329-71-5	2,5-Dinitrophenol
141-32-2	Butyl acrylate	330-54-1	Diuron
141-66-2	Dicrotophos	333-41-5	Diazinon
141-78-6	Ethyl acetate	334-88-3	Diazomethane
142-28-9	1,3-Dichloropropane	353-42-4	Boron trifluoride compound with methyl ether (1:1)
142-71-2	Cupric acetate	353-50-4	Carbonic difluoride
142-84-7	Dipropylamine	353-50-4	Carbon oxyfluoride
143-33-9	Sodium cyanide	353-50-4	Carbonyl fluoride
143-50-0	Kepone	357-57-3	Brucine
144-49-0	Fluoroacetic acid	359-06-8	Fluoroacetyl chloride
140-56-7	Fenaminosulf	371-62-0	Ethylene fluorohydrin
145-73-3	Endothall	379-79-3	Ergotamine tartrate
148-82-3	Alanine, 3-[p-bis(-chloroethyl) amino] phenyl]-, L-	460-19-5	Cyanogen
148-82-3	Melphalan	460-19-5	Ethanedinitrile
149-74-6	Dichloromethylphenylsilane	463-58-1	Carbonyl sulfide
151-38-2	Methoxyethylmercuric acetate	465-73-6	Isodrin
151-50-8	Potassium cyanide	470-90-6	Chlorfenvinfos
151-56-4	Ethylenimine	492-80-8	Auramine
152-16-9	Octamethyl pyrophosphoramidate	492-80-8	Benzenamine, 4,4'- carbonimidoylbis(N,N-dimethyl-
156-10-5	p-Nitrosodiphenylamine	492-80-8	C.I.Solvent Yellow 34
156-60-5	1,2-Dichloroethylene (E)	494-03-1	Chlornaphazine
156-62-7	Calcium cyanamide	496-72-0	Benzenediamine, ar-methyl-
189-55-9	Benzo[rst]pentaphene	496-72-0	Toluenediamine
189-55-9	1,2:7,8-Dibenzopyrene	502-39-6	Methylmercuric dicyanamide
189-55-9	Dibenz[a,i]pyrene	504-24-5	4-Aminopyridine
191-24-2	Benzo[ghi]perylene	504-24-5	Avitrol
193-39-5	Indeno(1,2,3-cd)pyrene	504-24-5	4-Pyridinamine
193-39-5	1,10-(1,2-Phenylene)pyrene	504-60-9	1-Methylbutadiene
205-99-2	Benzo(b)fluoranthene	504-60-9	1,3-Pentadiene
206-44-0	Benzo[j,k]fluorene	505-60-2	Mustard gas
206-44-0	Fluorathene	506-61-6	Potassium silver cyanide
207-08-9	Benzo(k) fluoranthene	506-64-9	Silver cyanide
208-96-8	Acenaphthylene	506-68-3	Bromine cyanide
218-01-9	1,2-Benzphenanthrene	506-68-3	Cyanogen bromide
218-01-9	Chrysene	506-77-4	Chlorine cyanide
225-51-4	3,4-Benzacridine	506-77-4	Cyanogen chloride
225-51-4	Benz[c]acridine	506-78-5	Cyanogen iodide
2310-17-0	Phosalone	506-87-6	Ammonium carbonate
297-78-9	Isobenzan	506-96-7	Acetyl bromide
297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate	507-60-8	Red squill (conc. above 30%)
297-97-2	Thionazin	509-14-8	Tetranitromethane
298-00-0	Methyl parathion	510-15-6	Chlorobenzilate
298-02-2	Phorate	514-73-8	Dithiazanine iodide
298-04-4	Disulfoton	528-29-0	o-Dinitrobenzene
300-62-9	Amphetamine	532-27-4	2-Chloroacetophenone
300-76-5	Naled	533-23-3	2,4-D Ethyl ester
301-04-2	Lead acetate	534-07-6	Bis(chloromethyl) ketone
301-04-2	Lead acetic acid	534-52-1	4,6-Dinitro-o-cresol
302-01-2	Diamine	535-89-7	Crimidine
302-01-2	Hydrazine	538-07-8	Ethylbis(2-chloroethyl)amine
303-34-4	2-Butenoic acid, 2-methyl-, 7-[[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy] methyl]-2,3,5,7a-tetrahydro-1H-pyrroliz in-1-yl ester, [1S (1alpha-(Z),72s,3R), 7aal-pha]]-	540-59-0	1,2-Dichloroethylene
303-34-4	Lasiocarpine	540-73-8	1,2-Dimethylhydrazine
305-03-3	Chlorambucil	540-88-5	tert-Butyl acetate
		541-09-3	Uranyl acetate
		541-25-3	Lewisite
		541-41-3	Ethyl chloroformate

CAS Number	Name	CAS Number	Name
541-53-7	Dithiobiuret	628-63-7	Amyl acetate
541-53-7	Thioimidodicarbonic diamide	628-86-4	Fulminic acid, mercury(II) salt
541-73-1	m-Dichlorobenzene	628-86-4	Mercury fulminate
541-73-1	1,3-Dichlorobenzene	630-10-4	Selenourea
542-62-1	Barium cyanide	630-20-6	1,1,1,2-Tetrachloroethane
542-75-6	Dichloropropene	630-60-4	Ouabain
542-75-6	1,3-Dichloropropene	631-61-8	Ammonium acetate
542-75-6	1,3-Dichloropropylene	636-21-5	Benzenamine, 2-methyl- hydrochloride
542-76-7	3-Chloropropionitrile	636-21-5	o-Toluidine hydrochloride
542-76-7	Propanenitrile, 3-chloro-	639-58-7	Triphenyltin chloride
542-88-1	Bis(chloromethyl) ether	640-19-7	Fluoroacetamide
542-88-1	Chloromethyl ether	644-64-4	Dimetilan
542-88-1	Dichloromethyl ether	675-14-9	Cyanuric fluoride
542-88-1	Methane, oxybis (chloro)-	676-97-1	Methyl phosphonic dichloride
542-90-5	Ethylthiocyanate	680-31-9	Hexamethylphosphoramide
543-90-8	Cadmium acetate	684-93-5	Carbamide, N-methyl-N-nitroso-
544-18-3	Cobaltous formate	684-93-5	N-Nitroso-N-methylurea
544-92-3	Copper cyanide	684-93-5	Urea, N-methyl-N-nitroso-
554-84-7	m-Nitrophenol	692-42-2	Diethylarsine
555-77-1	Tris(2-chloroethyl)amine	696-28-6	Arsonous dichloride, phenyl-
556-52-5	2,3-Epoxy-1-propanol	696-28-6	Dichlorophenylarsine
556-61-6	Methyl isothiocyanate	696-28-6	Phenyl dichloroarsine
556-64-9	Methyl thiocyanate	732-11-6	Phosmet
557-19-7	Nickel cyanide	757-58-4	Hexaethyl tetraphosphate
557-21-1	Zinc cyanide	757-58-4	Tetraphosphoric acid, hexaethyl ester
557-34-6	Zinc acetate	759-73-9	Carbamide, N-ethyl-N-nitroso-
557-41-5	Zinc formate	759-73-9	N-Nitroso-N-ethylurea
558-25-8	Methanesulfonyl fluoride	759-73-9	Urea, N-ethyl-N-nitroso-
563-12-2	Ethion	760-93-0	Methacrylic anhydride
563-41-7	Semicarbazide hydrochloride	764-41-0	1,4-Dichloro-2-butene
563-68-8	Thallium (I) acetate	765-34-4	Glycidylaldehyde
563-68-8	Thallium (I) acetic acid, salt	765-34-4	Oxiranecarboxyl dehyde
569-64-2	C.I. Basic Green 4	786-19-6	Carbophenothion
573-56-8	2,6-Dinitrophenol	814-49-3	Diethyl chlorophosphate
578-94-9	Phenarsazine chloride	814-68-6	Acrylyl chloride
584-84-9	Toluene-2,4-diisocyanate	815-82-7	Cupric tartrate
591-08-2	1-Acetyl-2-thiourea	823-40-5	Benzenediamine, ar-methyl-
591-08-2	N-Aminothioxomethyl acetamide	823-40-5	Toluenediamine
592-01-8	Calcium cyanide	824-11-3	Trimethylolpropane phosphite
592-04-1	Mercuric cyanide	842-07-9	C.I. Solvent Yellow 14
592-85-8	Mercuric thiocyanate	900-95-8	Stannane, acetoxytriphenyl-
592-87-0	Lead thiocyanate	919-86-8	Methyl demeton
594-42-3	Perchloromethylmercaptan	920-46-7	Methacryloyl chloride
594-42-3	Trichloromethanesulfonyl chloride	924-16-3	N-Nitrosodi-n-butylamine
597-64-8	Tetraethyltin	930-55-2	N-Nitrosopyrrolidine
598-31-2	Bromoacetone	930-55-2	Pyrrolidine, 1-nitroso-
606-20-2	Benzene, 1-methyl-2,6-dintro-	933-75-5	2,3,6-Trichlorophenol
606-20-2	2,6-Dinitrotoluene	933-78-8	2,3,5-Trichlorophenol
606-73-1	Hexachlorocyclohexane (all isomers)	944-22-9	Fonofos
608-73-1	BHC	947-02-4	Phosfolan
608-93-5	Pentachlorobenzene	950-10-7	Mephosfolan
609-19-8	3,4,5-Trichlorophenol	950-37-8	Methidathion
610-39-9	3,4-Dinitrotoluene	959-98-8	alpha-Endosulfan
614-78-8	Thiourea, (2-methylphenyl)-	961-11-5	Tetrachlorvinphos
615-05-4	2,4-Diaminoanisole	989-38-8	C.I. Basic Red 1
615-53-2	Carbamic acid, methylnitroso-, ethyl ester	991-42-4	Norbormide
615-53-2	N-Nitroso-N-methylurethane	998-30-1	Triethoxysilane
616-23-9	n-,2,3 Dichloropropanol	999-81-5	Chlormequat chloride
621-64-7	Di-n-propylnitrosamine	1024-57-3	Heptachlor epoxide
621-64-7	N-Nitrosodi-n-propylamine	1031-07-8	Endosulfan sulfate
624-83-9	Isocyanic acid, methylester	1031-47-6	Triamiphos
624-83-9	Methane, isocyanato-	1066-30-4	Chromic acetate
624-83-9	Methyl isocyanate	1066-33-7	Ammonium bicarbonate
625-16-1	tert-Amyl acetate	1066-45-1	Trimethyltin chloride
626-38-0	sec-Amyl acetate	1072-35-1	Lead stearate
627-11-2	Chloroethyl chloroformate	1111-78-0	Ammonium carbamate

CAS Number	Name	CAS Number	Name
1113-38-8	Ammonium oxalate	1558-25-4	Trichloro(chloromethyl)silane
1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis	1563-66-2	Carbofuran
1116-54-7	N-Nitrosodiethanolamine	1582-09-8	Trifluralin
1120-71-4	1,2-Oxathiolane, 2,2-dioxide	1596-84-5	Alar
1120-71-4	1,3-Propane sultone	1596-84-5	Daminozide
1122-60-7	Nitrocyclohexane	1600-27-7	Mercuric acetate
1124-33-0	Pyridine, 4-nitro-, 1-oxide	1615-80-1	N,N'-Diethylhydrazine
1129-41-5	Metolcarb	1622-32-8	Ethanesulfonyl chloride, 2-chloro-
1163-19-5	Decabromodiphenyl oxide	1634-04-4	Methyl tert-butyl ether
1185-57-5	Ferric ammonium citrate	1642-54-2	Diethylcarbamazine citrate
1194-65-6	Dichlobenil	1689-84-5	Bromoxynil
1300-71-6	Xylenol	1713-15-1	2,4-D mixed isobutyl esters
1303-28-2	Arsenic pentoxide	1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
1303-32-8	Arsenic disulfide	1752-30-3	Acetone thiosemicarbazide
1303-33-9	Arsenic trisulfide	1762-95-4	Ammonium thiocyanate
1303-36-2	Arsenic (III) oxide	1836-75-5	Nitrofen
1306-19-0	Cadmium oxide	1836-75-5	TOK (2,4 dichlorophenyl-p-nitrophenyl)
1309-64-4	Antimony trioxide	1863-63-4	Ammonium benzoate
1310-58-3	Potassium hydroxide	1888-71-7	Hexachloropropene
1310-73-2	Sodium hydroxide	1897-45-6	Chlorothalonil
1313-27-5	Molybdenum trioxide	1910-42-5	Paraquat
1313-82-8	Sodium sulfide	1918-00-9	Dicamba
1314-20-1	Thorium dioxide	1928-38-7	2,4-D Esters
1314-32-5	Thallic oxide	1928-38-7	2,4-D Methyl ester
1314-32-5	Thallium oxide	1928-43-4	2,4-D 2-ethylhexyl ester (conc. above 20%)
1314-56-3	Phosphorus pentoxide	1928-45-6	2,4-D, Propylene glycol butyl ether esters (conc. above 20%)
1314-62-1	Vanadium oxide	1928-47-8	2,4,5-T esters
1314-62-1	Vanadium pentoxide	1928-61-6	2,4-D Esters
1314-64-3	Uranyl sulfate	1929-73-3	2,4-D butoxyethanol ester (conc. above 20%)
1314-80-3	Phosphorus pentasulfide	1937-37-7	C.I. Direct Black 38
1314-80-3	Phosphorus sulfide	1982-47-4	Chloroxuron
1314-80-3	Sulfur phosphide	2001-95-8	Valinomycin
1314-84-7	Zinc phosphide	2008-39-1	2,4-D Dimethylamine salt (conc. above 20%)
1314-84-7	Zinc phosphide, when present at concentration greater than 10 percent	2008-46-0	2,4,5-T amines
1314-87-0	Lead sulfide	2032-65-7	Mercaptodimethur
1314-96-1	Strontium sulfide	2032-65-7	Methiocarb
1319-72-8	2,4,5-T amines	2074-50-2	Paraquat methosulfate
1319-77-3	Cresol(s)	2097-19-0	Phenylsilatrane
1319-77-3	Cresol (mixed isomers)	2104-64-5	EPN
1319-77-3	Phenol, methyl-	2164-17-2	Fluometuron
1320-18-9	2,4-D Esters	2223-93-0	Cadmium stearate
1321-12-6	Nitrotoluene	2231-57-4	Thiocarbazine
1327-53-3	Arsenic trioxide	2234-13-1	Octachloronaphthalene
1330-20-7	Xylene	2238-07-5	Diglycidyl ether
1330-20-7	Xylene (mixed isomers)	2275-18-5	Prothoate
1330-20-7	Xylenes	2303-16-4	Di-allate
1332-07-6	Zinc borate	2303-16-4	S-(2,3-Dichloroallyl) diisopropylthiocarbamate
1332-21-4	Asbestos	2310-17-0	Phosalone (conc. above 12%)
1333-82-0	Chromic acid	2312-35-8	Propargite
1333-83-1	Sodium bifluoride	2385-85-5	Mirex
1335-32-6	Lead, bis(acetato-O)tetrahydroxytn-	2497-07-6	Oxydisulfoton
1335-32-6	Lead subacetate	2524-03-0	Dimethyl phosphorochloridothioate
1335-87-1	Hexachloronaphthalene	2540-82-1	Formothion
1336-21-6	Ammonium hydroxide	2545-59-7	2,4,5-T esters
1336-36-3	Polychlorinated biphenyls (PCBs)	2570-26-5	Pentadecylamine
1338-23-4	2-Butanone peroxide	2587-90-8	Phosphorothioic acid, 0,0-dimethyl-5-(2-(methylthio)ethyl)es
1338-23-4	Methyl ethyl ketone peroxide		C.I. Direct Blue 6
1338-24-5	Naphthenic acid	2602-46-2	Promecarb
1341-49-7	Ammonium bifluoride	2631-37-0	Cyanophos
1344-28-1	Aluminum oxide	2636-26-2	Azinphos-ethyl
1397-94-0	Antimycin A	2642-71-9	Phosphonothioic acid, methyl-, 0-(4-nitrophenyl) 0-phenyl es
1420-07-1	Dinoterb	2665-30-7	2,4-D Sodium salt (conc. above 20%)
1464-53-5	2,2'-Bloxirane		
1464-53-5	1,2:3,4-Diepoxybutane		
1464-53-5	Diepoxybutane		



CAS Number	Name	CAS Number	Name
2703-13-1	Phosphonothioic acid, methyl-, 0-ethyl 0-(4-(methylthio)phen	7439-97-6	Mercury
2757-18-8	Thallous malonate	7439-97-6	Mercury compounds
2763-96-4	5-(Aminomethyl)-3-isoxazolol	7440-02-0	Nickel
2763-96-4	3(2H)-isoxazolone, 5-(aminomethyl)-	7440-22-4	Silver
2763-96-4	Muscimol	7440-23-5	Sodium
2778-04-3	Endothion	7440-28-0	Thallium
2832-40-8	C.I. Disperse Yellow 3	7440-36-0	Antimony
2921-88-2	Chlorpyrifos	7440-38-2	Arsenic
2939-80-2	Captafol	7440-38-2	Inorganic arsenic
2944-67-4	Ferric ammonium oxalate	7440-39-3	Barium
2971-38-2	2,4-D Esters	7440-41-7	Beryllium
3012-65-5	Ammonium citrate, dibasic	7440-41-7	Beryllium compounds
3037-72-7	Silane, (4-aminobutyl)diethoxymethyl-	7440-41-7	Beryllium dust
3118-97-6	C.I. Solvent Orange 7	7440-43-9	Cadmium
3164-29-2	Ammonium tartrate	7440-43-9	Cadmium products
3165-93-3	Benzenamine, 4-chloro- 2-methyl-, hydrochloride	7440-47-3	Chromium
3165-93-3	4-Chloro-o-toluidine hydrochloride	7440-48-4	Cobalt
3251-23-8	Cupric nitrate	7440-50-8	Copper
3254-63-5	Phosphoric acid, dimethyl 4-(methylthio) phenyl ester	7440-62-2	Vanadium (fume or dust)
3288-58-2	0,0-Diethyl S-methyl dithiophosphate	7440-66-6	Zinc (fume or dust)
3486-35-9	Zinc carbonate	7446-08-4	Selenium dioxide
3569-57-1	Sulfoxide, 3-chloropropyl octyl	7446-08-4	Selenium oxide
3615-21-2	Benzimidazole, 4,5-dichloro-2-(trifluoromethyl)-	7446-09-5	Sulfur dioxide
3689-24-5	Sulfotep	7446-11-9	Sulfur trioxide
3689-24-5	Tetraethyldithiopyrophosphate	7446-14-2	Lead sulfate
3689-24-5	Thiodiphosphoric acid, tetraethyl ester	7446-18-6	Sulfuric acid, dithallium(1 + ) salt
3691-35-8	Chlorophacinone	7446-18-6	Sulfuric acid, thallium(I) salt
3734-97-2	Amiton oxalate	7446-18-6	Thallium sulfate
3735-23-7	Methyl phenkapton	7446-18-6	Thallous sulfate
3761-53-3	C.I. Food Red 5	7446-27-7	Lead phosphate
3813-14-7	2,4,5-T amines	7446-27-7	Phosphoric acid, lead salt
3861-41-4	Bromoxnyl butyrate	7446-34-6	Sulfur selenide
3878-19-1	Fuberidazole	7447-39-4	Cupric chloride
4044-65-9	Bitoscanate	7487-94-7	Mercuric chloride
4098-71-9	Isophorone diisocyanate	7488-56-4	Selenium disulfide
4104-14-7	Phosacetim	7488-56-4	Selenium sulfide
4170-30-3	2-Butenel	7550-45-0	Titanium tetrachloride
4170-30-3	Crotonaldehyde	7558-79-4	Sodium phosphate, dibasic
4301-50-2	Flueneil	7580-67-8	Lithium hydride
4418-66-0	Phenol, 2,2'-thiobis[4-chloro-6-methyl-	7601-54-9	Sodium phosphate, tribasic
4549-40-0	N-Nitrosomethylvinylamine	7631-89-2	Sodium arsenate
4680-78-8	C.I. Acid Green 3	7631-90-5	Sodium bisulfite
4835-11-4	Hexamethylenediamine, N,N'-dibutyl-	7632-00-0	Sodium nitrite
5344-82-1	1-(o-Chlorophenyl)thiourea	7637-07-2	Boron trifluoride
5742-19-18	2,4-D Diethanolamine salt (conc. above 20%)	7646-85-7	Zinc chloride
5836-29-3	Coumatetralyl	7647-01-0	Hydrochloric acid
5893-66-3	Cupric oxalate	7647-01-0	Hydrogen chloride
6164-98-3	Chlordimeform	7647-18-9	Antimony pentachloride
6369-96-6	2,4,5-T amines	7664-38-2	Phosphoric acid
6369-97-7		7664-39-3	Hydrofluoric acid
6484-52-2	Ammonium nitrate	7664-39-3	Hydrogen fluoride
6484-52-2	Ammonium nitrate (solution)	7664-41-7	Ammonia
6533-73-9	Carbonic acid, dithallium(I) salt	7664-93-9	Sulfuric acid
6533-73-9	Thallium(I) carbonate	7681-49-4	Sodium fluoride
6533-73-9	Thallous carbonate	7681-52-9	Sodium hypochlorite
6923-22-4	Monocrotophos	7697-37-2	Nitric acid
7005-72-3	4-Chlorophenyl phenyl ether	7699-45-8	Zinc bromide
7421-93-4	Endrin aldehyde	7705-08-0	Ferric chloride
7428-48-0	Lead stearate	7718-54-9	Nickel chloride
7429-90-5	Aluminum (fume or dust)	7719-12-2	Phosphorus trichloride
7439-92-1	Lead	7720-78-7	Ferrous sulfate
7439-96-5	Manganese	7722-64-7	Potassium permanganate
		7722-84-1	Hydrogen peroxide (Conc. 52%)
		7723-14-0	Phosphorus
		7726-95-6	Bromine
		7727-54-0	Ammonium persulfate

CAS Number	Name	CAS Number	Name
7733-02-0	Zinc sulfate	10025-73-7	Chromic chloride
7758-94-3	Ferrous chloride	10025-87-3	Phosphorous oxychloride
7758-95-4	Lead chloride	10025-91-9	Antimony trichloride
7758-98-7	Cupric sulfate	10026-11-6	Zirconium tetrachloride
7761-88-8	Silver nitrate	10026-13-8	Phosphorous pentachloride
7773-06-0	Ammonium sulfamate	10028-15-6	Ozone
7775-09-9	Sodium chlorate (conc. above 7%)	10028-22-5	Ferric sulfate
7775-11-3	Sodium chromate	10031-59-1	Sulfuric acid, dithallium(1+) salt
7778-39-4	Arsenic acid	10031-59-1	Thallium sulfate
7778-44-1	Calcium arsenate	10034-93-2	Hydrazine sulfate
7778-50-9	Potassium bichromate	10043-01-3	Aluminum sulfate
7778-54-3	Calcium hypochlorite	10045-89-3	Ferrous ammonium sulfate
7779-86-4	Zinc hydrosulfite	10045-94-0	Mercuric nitrate
7779-88-6	Zinc nitrate	10049-04-4	Chlorine dioxide
7782-41-4	Fluorine	10049-05-5	Chromous chloride
7782-49-2	Selenium	10099-74-8	Lead nitrate
7782-50-5	Chlorine	10101-53-8	Chromic sulfate
7783-00-8	Selenious acid	10101-63-0	Lead iodide
7783-06-4	Hydrogen sulfide	10102-18-8	Sodium selenite
7783-07-5	Hydrogen selenide	10102-20-2	Sodium tellurite
7783-18-8	Ammonium thiosulfate	10102-43-9	Nitric oxide
7783-20-2	Ammonium sulfate (solution)	10102-43-9	Nitrogen oxide
7783-35-9	Mercuric sulfate	10102-44-0	Nitrogen dioxide
7783-46-2	Lead fluoride	10102-45-1	Nitric acid, thallium(1+) salt
7783-47-3	Stannous fluoride	10102-45-1	Thallium(I) nitrate
7783-49-5	Zinc fluoride	10102-48-4	Lead arsenate
7783-50-8	Ferric fluoride	10103-61-4	Copper arsenate
7783-56-4	Antimony trifluoride	10108-64-2	Cadmium chloride
7783-60-0	Sulfur tetrafluoride	10124-50-2	Potassium arsenite
7783-70-2	Antimony pentafluoride	10140-87-1	Ethanol, 1,2-dichloro-, acetate
7783-80-4	Tellurium hexafluoride	10192-30-0	Ammonium bisulfite
7784-34-1	Arsenous trichloride	10196-04-0	Ammonium sulfite
7784-41-0	Potassium arsenate	10210-68-1	Cobalt carbonyl
7784-42-1	Arsine	10265-92-6	Methamidophos
7784-46-5	Sodium arsenite	10294-34-5	Boron trichloride
7786-34-7	Mevinphos	10311-84-9	Dialifor
7786-81-4	Nickel sulfate	10380-29-7	Cupric sulfate, ammoniated
7787-47-5	Beryllium chloride	10415-75-5	Mercurous nitrate
7787-49-7	Beryllium fluoride	10421-48-4	Ferric nitrate
7788-98-9	Ammonium chromate	10476-95-6	Methacrolein diacetate
7789-00-6	Potassium chromate	10544-72-6	Nitrogen oxide NO <sub>2</sub>
7789-06-2	Strontium chromate	10588-01-9	Sodium bichromate
7789-09-5	Ammonium bichromate	11096-82-5	Aroclor 1260
7789-42-6	Cadmium bromide	11096-82-5	Polychlorinated biphenyls (PCBs)
7789-43-7	Cobaltous bromide	11097-69-1	Aroclor 1254
7789-61-9	Antimony tribromide	11097-69-1	Polychlorinated biphenyls (PCBs)
7790-94-5	Chlorosulfonic acid	11104-28-2	Aroclor 1221
7791-12-0	Thallium chloride	11104-28-2	Polychlorinated biphenyls (PCBs)
7791-12-0	Thallous chloride	11141-16-5	Aroclor 1232
7791-23-3	Selenium oxychloride	11141-16-5	Polychlorinated biphenyls (PCBs)
7803-49-8	Hydroxylamine	12002-03-8	Cupric acetoarsenite
7803-51-2	Hydrogen phosphide	12002-03-8	Paris green
7803-51-2	Phosphine	12036-02-1	Osmium oxide
7803-55-6	Ammonium vanadate	12039-52-0	Selenious acid, dithallium(1+) salt
7803-55-6	Vanadic acid, ammonium salt	12039-52-0	Thallium(I) selenide
7803-65-8	Ammonium hypophosphite	12039-52-0	Thallium selenite
8001-35-2	Camphochlor	12054-48-7	Nickel hydroxide
8001-35-2	Camphene, octachloro-	12108-13-3	Manganese, tricarbonyl methylcyclopentadienyl
8001-35-2	Toxaphene	12122-67-7	Zineb
8001-50-1	Strobane	12125-01-8	Ammonium fluoride
8001-58-9	Creosote	12125-02-9	Ammonium chloride
8003-19-8	Dichloropropene-Dichloropropene (mixture)	12135-76-1	Ammonium sulfide
8003-34-7	Pyrethrins	12427-38-2	Maneb
8065-48-3	Demeton	12672-29-6	Aroclor 1248
9004-66-4	Ferric dextran	12672-29-6	Polychlorinated biphenyls (PCBs)
9004-66-4	Iron dextran	12674-11-2	Aroclor 1016

CAS Number	Name	CAS Number	Name
12674-11-2	Polychlorinated biphenyls (PCBs)	24934-91-6	Chlormaphos
12771-08-3	Sulfur monochloride	25154-54-5	Dinitrobenzene (mixed isomers)
13071-79-9	Terbufos	25154-55-6	Nitrophenol (mixed isomers)
13121-70-5	Cyhexatin	25155-30-0	Sodium dodecylbenzenesulfonate
13171-21-6	Phosphamidon	25167-82-2	Trichlorophenol
13194-48-4	Ethoprophos	25168-15-4	2,4,5-T esters
13410-01-0	Sodium selenate	25168-26-7	2,4-D Esters
13450-90-3	Gallium trichloride	25168-26-7	2,4-D isooctyl ester (conc. above 20%)
13463-39-3	Nickel carbonyl	25321-14-6	Dinitrotoluene
13463-39-3	Nickel tetracarbonyl	25321-22-6	Dichlorobenzene
13463-40-6	Iron, pentacarbonyl-	25321-22-6	Dichlorobenzene (mixed isomers)
13494-80-9	Tellurium	25323-30-2	Dichloroethylenes (mixture)
13560-99-1	2,4,5-T salts	25376-45-8	Benzenediamine, ar-methyl-
13597-99-4	Beryllium nitrate	25376-45-8	Diaminotoluene (mixed isomers)
13746-89-9	Zirconium nitrate	25376-45-8	Toluenediamine
13765-19-0	Calcium chromate	25550-58-7	Dinitrophenol
13765-19-0	Chromic acid, calcium salt	26264-06-2	Calcium dodecylbenzene sulfonate
13814-96-5	Lead fluoborate	26419-73-8	Carbamic acid, methyl-, O-(((2,4-dimethyl-1,3-dithiolan-2-y
13826-83-0	Ammonium fluoborate	26628-22-8	Sodium azide
13952-84-6	sec-Butylamine	26638-19-7	Dichloropropane
14017-41-5	Cobaltous sulfamate	26952-23-8	Dichloropropene(s)
14167-18-1	Salcomine	27137-85-5	Trichloro(dichlorophenyl)silane
14216-75-2	Nickel nitrate	27176-87-0	Dodecylbenzenesulfonic acid
14307-35-8	Lithium chromate	27323-41-7	Triethanolamine dodecylbenzene sulfonate
14639-97-5	Zinc ammonium chloride	27774-13-6	Vanadyl sulfate
14639-98-6		28300-74-5	Antimony potassium tartrate
14644-61-2	Zirconium sulfate	28347-13-9	Xylylene dichloride
15271-41-7	Bicyclo[2.2.1]heptane-2-carbonitrile, 5-chloro-6-(((methyla	28772-56-7	Bromadiolone
15699-18-0	Nickel ammonium sulfate	30525-89-4	Paraformaldehyde
15950-66-0	2,3,4-Trichlorophenol	30674-80-7	Methacryloyloxyethyl isocyanate
15972-60-8	Alachlor	32534-95-5	2,4,5-TP esters
16071-86-6	C.I. Direct Brown 95	32976-88-8	2,4-Dithiobiuret
16543-55-8	N-Nitrosomornicotine	33089-61-1	Amitraz
16721-80-5	Sodium hydrosulfide	33213-65-9	beta-Endosulfan
16752-77-5	Methomyl	36478-76-9	Uranyl nitrate
16871-71-9	Zinc silicofluoride	39156-41-7	2,4-Diaminoanisole sulfate
16919-19-0	Ammonium silicofluoride	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[methylamino] carbonyl] oxime
16923-95-8	Zirconium potassium fluoride	39196-18-4	3,3-Dimethyl-1-(methylthio-2-butanone, O-[ (methylamino) carbonyl] oxime
17702-41-9	Decaborane(14)	39196-18-4	Thiofanox
17702-57-7	Formparanate	39300-45-3	Dinocap
17804-35-2	Benomyl	42504-46-1	Isopropanolamine dodecylbenzene sulfonate
18883-66-4	Streptozotocin	42874-03-3	Oxyfluorfen
19287-45-7	Diborane	50782-69-9	Phosphonothioic acid, methyl-, S-(2-(bis(1-methylethyl) amino
19525-15-6	Uranium peroxide	52628-25-8	Zinc ammonium chloride
19624-22-7	Pentaborane	52652-59-2	Lead stearate
20816-12-0	Osmium oxide (T-4)-	52740-16-6	Calcium arsenite
20816-12-0	Osmium tetroxide	53467-11-1	2,4-D Esters
20830-75-5	Digoxin	53469-21-9	Aroclor 1242
20830-81-3	Daunomycin	53469-21-9	Polychlorinated biphenyls (PCBs)
20859-73-8	Aluminum phosphide	53558-25-1	Pyriminil
21548-32-3	Fosthietan	55488-87-4	Ferric ammonium oxalate
21609-90-5	Leptophos	56073-10-0	Brodifacoum (conc. above 0.005%)
21725-46-2	Cyanazine	56189-09-4	Lead stearate
21908-53-2	Mercuric oxide	58270-08-9	Zinc, dichloro(4,4-dimethyl-5(((methylamino-carbonyl)oxy)im
21923-23-9	Chlorthiophos	61792-07-2	2,4,5-T esters
22224-92-6	Fenamiphos	62207-76-5	Cobalt, ((2,2'-(1,2-ethanediylbis (nitrilomethylidyne))bis(6-
22781-23-3	Bendiocarb (conc. above 15%)		
23103-98-2	Pirimicarb (conc. above 15%)		
23135-22-0	Oxamyl		
23422-53-9	Formetanate hydrochloride		
23505-41-1	Pirimifos-ethyl		
23950-58-5	3,5-Dichloro-N (1,1-dimethyl-2-propynyl) benzamide		
23950-58-5	Pronamide		
24017-47-8	Triazofos		

## APPENDIX B

## FINANCIAL FORMS

## B.1 Letter from chief financial officer:

To support a financial test of self-insurance or a guarantee, the chief financial officer of the major facility or guarantor shall prepare and sign a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted.

#### LETTER FROM CHIEF FINANCIAL OFFICER

I am the chief financial officer of [name and address of the owner or operator, or guarantor]. This letter is in support of the use ["the financial test of self-insurance" and/or "guarantee"] to demonstrate financial responsibility for cleanup and removal activities arising from operating [name(s) and address(es) of facility(ies)] in the amount of at least [dollar amount] per occurrence ["per facility" if multiple facilities are covered by this one document] and [dollar amount] annual aggregate ["per facility" if multiple facilities are covered by this one document].

A ["financial test" and/or "guarantee"] is also used by this ["owner or operator" or "guarantor"] to demonstrate evidence of financial responsibility in the following amounts under the following EPA or State rules or regulations (i.e., RCRA, ECRA, UST, etc.):

[applicable rules or regulations and amounts]

This ["owner or operator" or "guarantor"] has not received an adverse opinion, a disclaimer of opinion, or a "going concern" qualification from an independent auditor on his or her financial statements for the latest completed fiscal year.

[Fill in the information for Alternative I if the criteria of N.J.A.C. 7:1E-4.5(g)1 based on tangible net worth are being used to demonstrate compliance with the financial test requirements. Fill in the information for Alternative II if the criteria based on bond rating or net working capital of N.J.A.C. 7:1E-4.5(g)2 are being used to demonstrate compliance with the financial test requirements.]

#### ALTERNATIVE I

1. Amount of annual DCR aggregate coverage being assured by a financial test and/or guarantee \$ \_\_\_\_\_
2. Amount of annual aggregate coverage for all other federal or State regulatory costs (i.e. RCRA, ECRA, UST, etc.) covered by a financial test, and/or guarantee \$ \_\_\_\_\_
3. Sum of lines 1 and 2 \$ \_\_\_\_\_
4. Total tangible assets \$ \_\_\_\_\_
5. Total liabilities [if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6] \$ \_\_\_\_\_
6. Tangible net worth [subtract line 5 from line 4] \$ \_\_\_\_\_
7. Is line 6 at least \$10 million? YES NO \_\_\_\_\_
8. Is line 6 at least 10 times line 3? YES NO \_\_\_\_\_

YES NO

9. Have financial statements for the latest fiscal year been filed with the Securities Exchange Commission? \_\_\_\_\_
10. Have financial statements for the latest fiscal year been filed with the Energy Information Administration? \_\_\_\_\_
11. Have financial statements for the latest fiscal year been filed with the Rural Electrification Administration? \_\_\_\_\_
12. Has financial information been provided to Dun and Bradstreet, and has Dun and Bradstreet provided a financial strength rating of 4A or 5A? [Answer "Yes" only if both criteria have been met] \_\_\_\_\_

#### ALTERNATIVE II

1. Amount of annual DCR aggregate coverage being assured by a financial test and/or guarantee \$ \_\_\_\_\_
  2. Amount of annual aggregate coverage for all other federal or State regulatory cost (i.e. RCRA, ECRA, UST, etc.) covered by a financial test, and/or guarantee \$ \_\_\_\_\_
  3. Sum of lines 1 and 2 \$ \_\_\_\_\_
  4. Total tangible assets \$ \_\_\_\_\_
  5. Total liabilities [if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6] \$ \_\_\_\_\_
  6. Tangible net worth [subtract line 5 from line 4] \$ \_\_\_\_\_
  7. Total assets in the U.S. [required only if less than 90 percent of assets are located in the U.S.] \$ \_\_\_\_\_
  8. Is line 6 at least \$10 million? YES NO \_\_\_\_\_
  9. Is line 6 at least 6 times line 3? YES NO \_\_\_\_\_
  10. Are at least 90 percent of total assets located in the U.S.? [If "No", complete line 11.] \_\_\_\_\_
  11. Is line 7 at least 6 times line 3? [Fill in either lines 12-15 or lines 16-18:] \_\_\_\_\_
  12. Current assets \$ \_\_\_\_\_
  13. Current liabilities \$ \_\_\_\_\_
  14. Net working capital [subtract line 13 from line 12] \$ \_\_\_\_\_
  15. Is line 14 at least 6 times line 3? YES NO \_\_\_\_\_
  16. Current bond rating of most recent bond issue \_\_\_\_\_
  17. Name of rating service \_\_\_\_\_
  18. Date of maturity of bond \_\_\_\_\_
  19. Have financial statements for the latest fiscal year been filed with the SEC, the Energy Information Administration, or the Rural Electrification Administration? \_\_\_\_\_
- [If "No", please attach a report from an independent certified public accountant certifying that there are no material differences between the data as reported in lines 4-18 above and the financial statements for the latest fiscal year.]

[For both Alternative I and Alternative II complete the certification with this statement.]

I hereby certify that the wording of this letter is identical to the wording specified in Appendix B of N.J.A.C. 7:1E, as such rules were constituted on the date shown immediately below.

[Signature]

[Name]

[Title]

[Date]

## B.2 Guarantee:

The guarantee must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

### GUARANTEE

Guarantee made this [date] by [name of guaranteeing entity], a business entity organized under the laws of the State of [name of state], herein referred to as guarantor, to the Department and to any and all third parties, and obligees, on behalf of [owner or operator] of [business address].

(1) Guarantor meets or exceeds the financial test criteria of N.J.A.C. 7:1E-4.5(g) and agrees to comply with the requirements for guarantors as specified in N.J.A.C. 7:1E-4.5(h).

(2) This guarantee satisfies the requirements for assuring funding in the amount of [dollar amount] per occurrence and [dollar amount] annual aggregate for cleanup and removal activities arising from operating the above identified major facility.

(3) [Insert appropriate phrase: "On behalf of our subsidiary" (if guarantor is corporate parent of the owner or operator); "On behalf of our affiliate" (if guarantor is related firm of the owner or substantial business relationship with owner or operator); "Incident to our business relationship with" (if guarantor is providing the guarantee as an incident to a substantial business relationship with owner or operator)] [owner or operator], guarantor guarantees to the Department and to any and all third parties that:

In the event that [owner or operator] fails to provide alternate coverage within 60 days after receipt of a notice of cancellation of this guarantee and the Department has determined or suspects that a discharge has occurred at a facility covered by this guarantee, the guarantor, upon instructions from the Department, shall fund a standby trust fund in an amount sufficient to cover cleanup and removal

costs, but not to exceed the coverage limits specified in N.J.A.C. 7:1E-4.5(b).

In the event that the Department determines that [owner or operator] has failed to perform cleanup and removal activities arising out of the operation of the above-identified facility, the guarantor, upon written instructions from the Department, shall fund a standby trust in an amount sufficient to cover cleanup and removal costs, but not to exceed the coverage limits specified above.

(4) Guarantor agrees that if, at the end of any fiscal year before cancellation of this guarantee, the guarantor fails to meet the financial test criteria of N.J.A.C. 7:1E-4.5(g), guarantor shall send within 120 days of such failure, by certified mail, notice to [owner or operator] and the Department. The guarantee will terminate 120 days from the date of receipt of the notice by [owner or operator] or 120 days from the date of receipt of the notice by the Department, whichever is later, as evidenced by the return receipt.

(5) Guarantor agrees to notify [owner or operator] by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alternation of any obligation of [owner or operator] pursuant to N.J.A.C. 7:1E.

(7) Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable financial responsibility requirements of N.J.A.C. 7:1E-4.5 for the above-identified facility, except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator] and the Department, such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt.

(8) The guarantor's obligation does not apply to any of the following:

(a) Any obligation of [owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [owner or operator] arising from, and in the course of, employment by [owner or operator];

(c) Bodily injury or property damage not related to a discharge arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by

[owner or operator] that is not the direct result of a discharge from the facility;

(e) Bodily damage or property damage for which [owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of N.J.A.C. 7:1E-4.5.

(9) Guarantor expressly waives notice of acceptance of this guarantee by the Department or by [owner or operator].

I hereby certify that the wording of this guarantee is identical to the wording specified in Appendix B of N.J.A.C. 7:1E as such rules were constituted on the effective date shown immediately below.

Effective date: \_\_\_\_\_

[Name of guarantor]

[Authorized signature for guarantor]

[Name of persons signing]

[Title of person signing]

Signature of witness or notary: \_\_\_\_\_

### B.3 Insurance or risk retention group:

Each insurance policy must be amended by an endorsement worded as specified in paragraph (1) or evidenced by a certificate of insurance worded as specified in paragraph (2), except that instructions in brackets must be replaced with the relevant information and the brackets deleted:

#### (1) ENDORSEMENT

NAME: \_\_\_\_\_ [name of each covered location]  
 ADDRESS: \_\_\_\_\_ [address of each covered location]  
 \_\_\_\_\_  
 POLICY NUMBER: \_\_\_\_\_  
 PERIOD OF COVERAGE: \_\_\_\_\_ [current policy period]  
 NAME OF [INSURER OR RISK RETENTION GROUP]: \_\_\_\_\_  
 \_\_\_\_\_  
 ADDRESS OF [INSURER OR RISK RETENTION GROUP]: \_\_\_\_\_  
 \_\_\_\_\_  
 NAME OF INSURED: \_\_\_\_\_  
 ADDRESS OF INSURED: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Endorsement:

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance, subject to public policy considerations, covering the following facility: [name and address of the facility] for cleanup and removal activities.

The limits of liability are [insert the dollar amount of the "per occurrence" and "annual aggregate" limits of the Insurer's or Group's liability], exclusive of legal defense costs. This coverage is provided under. The effective date of said policy is [date].

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

a. Bankruptcy or insolvency of the insured shall not relieve the ["Insurer" or "Group"] of its obligations under the policy to which this endorsement is attached.

b. The ["Insurer" or "Group"] is liable for the payment of amounts within any deductible applicable to the policy to the provider of cleanup and removal activities, with a right of reimbursement by the insured for any such payment made by the ["Insurer" or "Group"]. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms.

c. Whenever requested by the Department, ["Insurer" or "Group"] agrees to furnish to the Department a signed duplicate original of the policy and all endorsements.

d. Cancellation or any other termination of the insurance by the ["Insurer" or "Group"], except for nonpayment of premium or material misrepresentation by the insured, will be effective only upon written notice and only after the expiration of 60 days after the date on which the insured receives the written notice or 60 days after the date on which the Department receives the written notice, whichever is later. Cancellation for nonpayment of premium or material misrepresentation by the insured will be effective only upon written notice and only after the expiration of a minimum of 10 days after the date on which the insured receives the written notice or 10 days after the date on which the Department receives the written notice, whichever is later.

[Insert for claims-made policies:



e. The insurance covers claims otherwise covered by the policy that are reported to the ["Insurer" or "Group"] within six months of the effective date of the cancellation or nonrenewal of the policy, except where the new or renewed policy has the same retroactive date or a retroactive date earlier than that of the prior policy, and that arise out of any covered occurrence that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or termination date.]

I hereby certify that the wording of this instrument is identical to the wording in Appendix B of N.J.A.C. 7:1E and that the ["Insurer" or "Group"] is ["licensed to transact the business of insurance" or "eligible to provide insurance as an excess or surplus lines insurer in New Jersey"].

[Signature of authorized representative of Insurer or Risk Retention Group]

[Name of person signing]

[Title of person signing], Authorized Representative of [name of Insurer or Risk Retention Group]

[Address of Representative]

## (2) CERTIFICATE OF INSURANCE

NAME: \_\_\_\_\_ [name of each covered location]  
ADDRESS: \_\_\_\_\_ [address of each covered location]

POLICY NUMBER: \_\_\_\_\_

ENDORSEMENT  
(if applicable): \_\_\_\_\_

PERIOD OF COVERAGE: \_\_\_\_\_ [current policy period]

NAME OF [INSURER OR RISK RETENTION GROUP]: \_\_\_\_\_

ADDRESS OF [INSURER OR RISK RETENTION GROUP]: \_\_\_\_\_

NAME OF INSURED: \_\_\_\_\_

ADDRESS OF INSURED: \_\_\_\_\_

### Certification:

1. [Name of Insurer or Risk Retention Group], [the "Insurer" or "Group"], as identified above, hereby certifies that it has issued liability insurance, subject to public policy considerations, covering the following facility: [List the name and address of the facility] for cleanup and removal activities arising from operating the facility identified above.

The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's or Group's liability], exclusive of legal defense costs. This coverage is provided under [policy number]. The effective date of said policy is [date].

2. The ["Insurer or Group"] further certifies the following with respect to the insurance described in Paragraph 1:

a. Bankruptcy or insolvency of the insured shall not relieve the ["Insurer" or "Group"] of its obligations under the policy to which this certificate applies.

b. The ["Insurer" or "Group"] is liable for the payment of amounts within any deductible applicable to the policy to the provider of cleanup and removal activities, with a right of reimbursement by the insured for any such payment made by the ["Insurer" or "Group"]. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms.

c. Whenever requested by the Department, the ["Insurer" or "Group"] agrees to furnish to the Department a signed duplicate original of the policy and all endorsements.

d. Cancellation or any other termination of the insurance by the ["Insurer" or "Group"], except for nonpayment of premium or material misrepresentation by the insured, will be effective only upon written notice and only after the expiration of 60 days after the date on which the insured receives the written notice or 60 days after the date on which the Department receives the written notice, whichever is later. Cancellation for nonpayment of premium or material misrepresentation by the insured will be effective only upon written notice and only after the expiration of a minimum of 10 days after the date on which the insured receives the written notice or 10 days after the date on which the Department receives the written notice, whichever is later.

[Insert for claims-made policies:

e. The insurance covers claims otherwise covered by the policy that are reported to the ["Insurer" or "Group"] within six months of the effective date of the cancellation or nonrenewal of the policy except where the new or renewed policy has the same retroactive date or a retroactive date earlier than that of the prior policy, and which arise out of any covered occurrence that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or termination date.]

I hereby certify that the wording of this instrument is identical to the wording in Appendix B of N.J.A.C. 7:1E and that the ["Insurer" or "Group"] is ["licensed to transact the business of insurance" or "eligible to provide insurance as an excess or surplus lines insurer in the State"].

[Signature of authorized representative of Insurer or Risk Retention Group]

[Type name]

[Title of person signing], Authorized Representative of [name of Insurer or Risk Retention Group]

[Address of Representative]

#### B.4 Surety Bond:

The surety bond must be worded as follows, except that instructions in brackets must be replaced with the relevant information and the brackets deleted:

#### PERFORMANCE BOND

DATE BOND EXECUTED: \_\_\_\_\_  
 PERIOD OF COVERAGE: \_\_\_\_\_  
 PRINCIPAL: [legal name and business address of owner or operator]  
 TYPE OF ORGANIZATION: [insert "individual," "joint venture,"  
 "partnership," or "corporation"]  
 STATE OF INCORPORATION (If Applicable): \_\_\_\_\_  
 SURETY(IES): [name(s) and business address(s)]  
 SCOPE OF COVERAGE: [List the name and address of the facility.  
 List the coverage guaranteed by the bond: cleanup and removal activities.]  
 PENAL SUMS OF BOND: Per occurrence \$ \_\_\_\_\_  
 Annual aggregate \$ \_\_\_\_\_  
 SURETY'S BOND NUMBER: \_\_\_\_\_

Know all Persons by These Presents, that we, the Principal and Surety(ies), hereto are firmly bound to the Department, in the above penal sums for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we the Sureties, bind ourselves in such sums jointly and severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sums only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sums.

Whereas said Principal is required under N.J.S.A. 58:10-23.11 to provide financial assurance for cleanup and removal activities arising from operating the facility identified above, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, therefore, the conditions of the obligation are such that if the Principal shall faithfully perform cleanup and removal activities arising from operating the facility identified above, or if the Principal shall provide alternate financial assurance within 120 days after the date the notice of cancellation is received by the Principal from the Surety(ies), then this obligation shall be null and void; otherwise, it is to remain in full force and effect.

Such obligation does not apply to any of the following:

(a) Any obligation of [owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [owner or operator] arising from, and in the course of, employment by [owner or operator];

(c) Bodily injury or property damage not related to a discharge arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [owner or operator] that is not the direct result of a discharge from the facility;

(e) Bodily injury or property damage for which [owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of N.J.A.C. 7:1E-4.5.

Upon notification by the Department that the Principal has failed to perform cleanup and removal activities in accordance with the Department's instructions, as guaranteed by this bond, the Surety(ies) shall either perform cleanup and removal activities in accordance with the Department's instructions, or place funds in an amount up to the annual aggregate penal sum into the standby trust fund as directed by the Department.

Upon notification by the Department that the Principal has failed to provide alternate financial assurance within 60 days after the date the notice of cancellation is received by the Principal from the Surety(ies) and that the Department has determined or suspects that a discharge has occurred, the Surety(ies) shall place funds in an amount not exceeding the annual aggregate penal sum into the standby trust fund as directed by the Department.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the annual aggregate to the penal sum shown on the face of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the Department, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal or the date of receipt of the notice of cancellation by the Department, whichever is later, as evidenced by the return receipt.

The Principal may terminate this bond by sending written notice to the Surety(ies).

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Appendix B of N.J.A.C. 7:1E as such rules were constituted on the date this bond was executed.

#### PRINCIPAL

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate seal]

#### CORPORATE SURETY(IES)

[Name and address]

State of Incorporation: \_\_\_\_\_

Liability Limit: \$ \_\_\_\_\_

[Signature(s)]

[Name(s) and title(s)]

[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: \$ \_\_\_\_\_

#### B.5 Letter of Credit:

The letter of credit must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

#### IRREVOCABLE STANDBY LETTER OF CREDIT

[Name and address of issuing institution]

[Name and address of the Department]

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. \_\_\_\_ in your favor, at the request and for the account of [owner or operator name] of [address] up to the aggregate amount of [in words] U.S. dollars (\$ [dollar amount] ), available upon presentation of:

(1) your sight draft, bearing reference to this letter of credit, No. \_\_\_\_\_, and

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to rules issued under authority of the Spill Compensation and Control Act, and that this letter of credit is not being drawn on to cover any of the following:

(a) Any obligation of [owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [owner or operator] arising from, and in the course of, employment by [owner or operator];

(c) Bodily injury or property damage not related to a discharge arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [owner or operator] that is not the direct result of a discharge from the facility;

(e) Bodily injury or property damage for which [owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of N.J.A.C. 7:1E-4.5."

This letter of credit may be drawn on to cover cleanup and removal activities arising from operating the facility identified below in the amount of [in words] \$ [dollar amount] per occurrence and [in words] \$ [dollar amount] annual aggregate.

[Name and address of facility]

This letter of credit is effective as of [date] and shall expire on [date], but such expiration date shall be automatically extended for a period of [at least the length of the original term] on [expiration date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify [owner or operator] and the Department by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event that [owner or operator] is so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by [owner or operator] or for 120 days after the date of receipt by the Department, as shown on the signed return receipt.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner or operator] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in Appendix B of N.J.A.C. 7:1E, as such rules were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution]

[Date]

This credit is subject to ["the most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce," or "the Uniform Commercial Code"].

Amended by R.1996 d.252, effective June 3, 1996.

See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).

### APPENDIX C

New Jersey Department of Environmental Protection  
Mapping the Present to Protect New Jersey's Future  
MAPPING AND DIGITAL DATA STANDARDS  
prepared by:

New Jersey Department of Environmental Protection  
The Bureau of Geographic and Information Analysis  
CN 428  
Trenton, NJ 08625  
May, 1995  
Summary

The New Jersey Department of Environmental Protection (DEP) has developed a Geographic Information System (GIS) for use by the DEP for the storage and analysis of cartographic (mapped) and related environmental scientific and regulatory database information. A GIS is a computer mapping system used in the analysis of geographic data and databases. The DEP requires that mapped information be submitted according to the standards of this document such that the data can be input to the DEP/GIS for review and analysis. This document details three important GIS concepts regarding the creation, capture and delivery of mapped information.

First, all basemaps regardless of scale must meet a definable standard, such as United States National Map Accuracy Standard's (NMAS), referenced in this document, or be of survey quality. This will guarantee true positional accuracy of data layers. The NJDEP has produced a series of photobase maps at quad (1:24000) and quarterquad (1:12000) scales which meet NMAS (See Basemap Availability).

Secondly, geographic data shall be mapped in state plane coordinates (SPC). SPC means a geographic reference system in the horizontal plane describing the position of points or features with respect to other points in New Jersey. The official survey base of the state is known as the New Jersey State Plane Coordinate System whose geodetic positions have been adjusted on the North American Datum of 1983 (NAD83) as per Chapter 218, Laws of New Jersey 1989. Although this official survey base is defined in meters, the NJDEP will accept and prefers state plane coordinators in survey feet.

Thirdly, geographic data must be fully documented (Section 6.0 and 9.0) and delivered to the DEP in digital format, as shown in Table 1 of this document. There are several different formats such as a simple space delimited ASCII file of coordinates, a .DXF file from AutoCad, or an Arc/Info export file, depending on the mapping requirements.

For more information concerning GIS, the user community in New Jersey, data availability, and GPS, the 1995 New Jersey GIS Resource Guide is available from the Bureau of Geographic Information and Analysis (BGIA), CN 428, Trenton, NJ (609) 984-2243 for the cost of reproduction (\$20).

Note: Rules, contracts and/or other regulatory documents from the DEP may specify items required such as content, scale, format or media.

### MAPPING AND DIGITAL DATA STANDARDS FOR THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION GEOGRAPHIC INFORMATION SYSTEM

#### 1.0 INTRODUCTION

Geographic Information System (GIS) technology has become a state-of-the-art tool for innovative efforts nationally to protect the natural environment and public health. The New Jersey Department of Environmental Protection (DEP) acquired GIS software (ARC/INFO) in 1987 to provide technical and analytical support to the DEP's decision-making process. To adequately protect the environment, the NJDEP must make decisions based on sound, accurate spatial data. This document details the basic standards for creating, converting and encoding analog spatial data into a digital form for use on a GIS.

The DEP/GIS is administered by the Bureau of Geographic and Information and Analysis (BGIA). The BGIA is responsible for the day to day operations of the system, training, coordination of data base development, pilot applications, GIS research, and user support. In support of these roles, the BGIA has established a core set of standards for all data development and input for the DEP/GIS. Basic standards will assure consistent data quality and documentation, compatibility between data sets, and facilitate interactive analysis and assure the quality of results derived from the DEP/GIS. For more information concerning GIS, aerial photography, geodetic control, and global positioning (GPS), the 1995 New Jersey GIS Resource Guide, is available from the BGIA, (609) 984-2243.

Geographic data must be delivered to the DEP in digital format, according to Table 1 of this document. This can be as simple as an ASCII file of coordinates, space delimited on 3.5" diskette, to a .DXF file from AutoCad, to an Arc/Info export file, depending on the mapping requirements.

## 2.0 BASEMAPS

Cartographic (locational) data input into the GIS must be derived from or mapped to georeferenced basemaps that meet or exceed National Map Accuracy Standards (NMAS) or be of survey quality. Recompiling data from sources which are not planimetric to georeferenced basemaps is always required. Basemaps at any scale should always meet NMAS at a minimum (Section 8.0). Data derived from GPS technology must also meet a standard and be documented (Section 7.0).

Over the years the DEP has produced several series of quality basemaps which are GIS compatible. In several cases these maps are synoptic and statewide, such as the photo basemaps associated with the 1991 and 1986 overflights. In other cases the basemaps cover specific areas only, such as the 1977-78 Tidelands photo basemaps which cover coastal tidal New Jersey only. The basemaps described here were produced on stable base mylar, are photo-images, and meet a definable mapping standard. These maps in mylar and paper are acceptable basemaps which should be used whenever possible to generate GIS compatible data and/or to use as a recompilation base. The various Basemap sources are described below.

All the maps described herein with the exception of the 1991/92 products are referenced in NAD27. For this reason, the 1991 Basemap quads (1:24000) and quarterquads (1:12000) series, referenced in NAD83, are highly recommended over all other sources listed for mapping at these scales (See Basemap Availability).

### 1991 Aerial Photographs and Basemaps

In February and March of 1991 the DEP and the USGS flew a joint high altitude aerial mission over New Jersey

producing a set of quarterquad centered color infrared (CIR) photos at 1:40000. These frames are available from the USGS National Earth Science Information Center (703) 648-6045. The frames are available for review at the DEP's Tidelands Element, 9 Ewing Street, Trenton.

The DEP then created a set of hardcopy chronoflex quarterquad (1:12000) and photoquad basemaps (1:24000) (Figure 1) for the public and regulated community to meet the requirements of DEP mandated mapping. This series of maps is referenced in state plane coordinates in NAD83. Mylar copies, the preferred base, are available from the contractor (See Basemap Availability). Paper prints are available from Mapsales. This series of maps represents the best maps available statewide at these two scales for mapping. Soft copy digital images of both quads and quarterquads are also available at both scales (See Basemap Availability).

### 1986 Freshwater Wetlands Quarterquad Maps (1:12000)

The passage of the Freshwater Wetlands Act of 1987 required the DEP to produce a composite map of the freshwater Wetlands for the state. The Department recommended and subsequently produced a set of 624 chronoflex photo quarterquads for the entire state from the March 1986 overflight. The quarterquads meet NMAS. The maps represent a good source for both photo-interpretation and recompilation at a county, municipal or in many cases, at a site level.

### 1986 Photoquad Basemaps (1:24000)

The Department sponsored a statewide overflight in March 1986 and produced a complete set of stable base photoquads at 1:24000 (Figure 2). The control for the production of these basemaps was the mylar USGS 7.5-Minute topoquads. The photoquads have been widely used both to create data layers and to recompile other data sources from paper or nonplanimetric sources. Paper prints are available from Mapsales.

### 1977/78 Tidelands Basemaps (1:2400)

The DEP produced a series of 1:2400 basemaps for the coastal zone including all tidal areas in the state to delineate the State's claim to all tide-flowed lands. The series consists of 1628 photo basemaps. These maps are rectified products which meet NMAS below the ten foot contour. The photo-image is late summer of 1977 and 1978.

### USGS 7.5-Minute Series Topoquad Basemaps (1:24000)

The USGS has published an entire series of 172 topographic maps for the state at a scale of 1:24000. The base information ranged from the late 1940's to the 1980's with photo-updates into the 1990's. Because these maps vary in source date, and because the DEP has produced more accurate and current basemaps (1991), the USGS Topo-

quads series is not recommended as a primary Basemap but may be helpful as a supplemental source of information.

### Basemap Availability

Paper prints of 1986 and 1991 photo basemaps may be obtained from NJDEP Mapsales (609) 777-1039, as well as paper prints of most USGS quadrangles. Paper prints from the 1977/78 series are available from the DEP Tidelands Element (609) 292-2573. Other basemaps that meet NMAS may be available from the private sector.

Mylar photo basemaps from 1991, 1986 and 1977/78 and the digital imagery from 1991 may be obtained from the DEP contractor, MARKHURD, Minneapolis, MN (1-800-MAP-HURD).

## 3.0 MAP COMPILATION

Mapped information comes from a variety of sources which are not always GIS compatible. Consequently, each source must be evaluated to determine whether redrafting is necessary to prepare the data for entry into the GIS. Much of the data required for the GIS can be derived directly from the photo-interpretation of aerial photos to rectified photo basemaps. Data delineated on unrectified sources or sources of unknown quality may be recompiled to rectified photo basemaps. However, some mapped information may be of such poor quality that recompilation is not possible and the data layer must be recreated.

### 3.1 Photo-interpretation

Today's GIS data development efforts rely, to a large degree on the derivation of themes from the stereoscopic interpretation of aerial photos. The DEP has used this technique in conjunction with various photo basemaps to produce land use/land cover and freshwater wetland coverages, for instance. The DEP maintains an extensive library of current and historical photos in color infrared, color and panchromatic photographs from the 1930's to the present. The bulk of this photography is held by the Tidelands Management Program (TMP). The TMP, offers light tables, photo basemaps and stereoscopes as well as some instruction on set up to assist the public and regulated community. This service is available at a modest fee and is well worth the effort, particularly if the data are to be captured in the GIS.

When creating new data sets or updating existing ones, delineators should be intimately familiar with the classification coding scheme being employed prior to producing data for input into the GIS. Care should be taken in choosing an appropriate standard classification system. If non-standard classification systems are used, the contractor shall fully describe the system.

### 3.2 Recompilation

Recompilation involves the redrafting of features from one resource to a more accurate, planimetric source based on identifiable features. This method is commonly used to give more accuracy to data which has been delineated on sources of unknown or unspecified quality or paper manuscripts. It is also commonly used to transfer data delineated on unrectified photography to a rectified basemap based on a series of local fits of common photo-identifiable features, such as roads.

To date, this technique has been employed to redraft the U.S.D.A., Natural Resource Conservation Service (NRCS) soils data from the soil survey atlas sheets (mapped to unrectified photos) to georeferenced (rectified) photoquad or quarterquad basemaps. The technique for accomplishing this is detailed in Photobase Map Compilation (USDA, 1984). This manuscript is an excellent technical guide for recompilation.

Other data sources without photo-images may be recompiled to planimetric sources by using other coincident features. For instance, grids on source data may be generated and plotted to planimetric basemaps and used as a guide for the redrafting of information which would otherwise not be usable in a digital form. This method has been used to draft historical purveyor boundaries from old atlas sheets to the photoquads, for instance. Whatever the technique, a data dictionary form must be completed for each map layer describing the recompilation techniques employed.

## 4.0 DATA AUTOMATION

The conversion of analog data to digital data is a critical step in the creation of a digital database in the GIS. Tablet digitizing is the most common method, however, scanning is gaining popularity, particularly when large data development projects are involved. For tablet digitizing manuscript lines should be clear and complete with no gaps or shortfalls. Operators should not interpret and digitize at the same time. The digitizer should concentrate solely on capturing the exact nature of the linework. All maps shall be edge matched prior to digitization to eliminate cartographic errors and reduce digital problems. GPS derived points are captured digitally and do not require automation (Section 7.0).

Heads up digitizing is a new digitizing technique which is useful for capturing data or updates from digital imagery. The BGIA is presently evaluating this technique and will issue related standards in the near future.

Digital accuracy shall be evaluated by proof plotting the digital data to the base at the same scale as the manuscript and overlaying the data to the original map. The linework should be digitized in such a way as to create a digital copy which is within  $\pm$  one line width. Through this process edits such as omissions and inaccurate representations can be flagged and corrected such that the standard is met.



The coding of features should follow an approved classification system as adopted by state and federal agencies. These codes follow specifications of organizations responsible for deriving and maintaining the data. For example, the DEP uses the Cowardin et al. (1979) system for the Classification of Wetland and Subaqueous Lands in the United States as adopted by the National Wetlands Inventory of the U.S. Fish and Wildlife Service. In addition the Department supports a modified version of Anderson et al. (1976), USGS, for classifying land use/land cover. For prototype classification schemes, clear concise documentation describing the classes is required.

All attribute coding shall be 100% correctly coded. Code sheets shall also be provided, listing the code and full description of each code. All documentation shall be delivered in hard copy and on diskette. Codes shall also be described in the Data Dictionary (Section 9.0).

## 5.0 DATA TRANSFER

At a minimum, for the delivery of coordinates and simple database, data shall be submitted in an ASCII flat file format on 3.5 diskette. For instance, data from a word processor can be saved to an ASCII text file for delivery.

For GIS binary map files (coverages) the digital format shall be an export format compatible with the DEP/GIS according to Table 1. The NJDEP GIS is ARC/INFO software running on a UNIX based SUN network with a SUN SPARC 1000 server. For submittal to the Department, please use any of formats in Table 1, listed in order of preference (Arc/Info Export, .DXF, flat ASCII). In the future, the Department will support the new federally adopted spatial data transfer standard (SDTS).

Large cartographic digital data sets shall be delivered on 8mm exabyte tape or 150 mb  $\frac{1}{4}$ " tapes in UNIX format using tar or cpio (high or low density, please specify). DOS formatted data can be delivered on QIC120 mb tapes. Small data sets may be delivered on  $3\frac{1}{2}$ " (1.4 mb format) diskette in the format specified (DOS or UNIX). For diskettes with text or files, the data shall be on a DOS formatted disk, in space delimited format file (SDF, no delimiters). Please send all files uncompressed unless decompression software is supplied.

## 6.0 DOCUMENTATION

Each digital data layer must be fully documented by the producer following the attached data dictionary format (Section 9.0). Additional associated text files which describe details of the coverage are stored as readme files associated with the Dictionary files for each map.

## 7.0 GLOBAL POSITIONING SYSTEM

The NAVSTAR Global Positioning System (GPS) has become an accepted and widespread technology for capturing mappable features digitally for use in a GIS, particularly for points (wells, outfalls, etc.) and lines (trails, site bound-

aries, etc.). The system is based on a constellation of orbiting satellites that enable users with GPS receivers to determine 3D positions anywhere on or near the earth's surface. A GPS receiver must be able to "see" 4 or more GPS satellites in order to determine positions.

The range of accuracy afforded by GPS is  $\pm 100$  meters to sub-centimeter. The accuracy of any coordinates collected with GPS will depend on several factors: receiver type (carrier phase vs. code based), the GPS conditions under which the coordinate data is collected (number of satellites and satellite geometry), whether the quality of the locations are enhanced through differential processing, and the data collection technique (field procedures used) by the GPS receiver operator. GPS accuracies are not expressed in absolute terms. Rather they are expressed as a value such as 5 meters 2dRMS. What this really means is that roughly 95% of the horizontal (x,y) values are within 5 meters of truth.

### Receiver Classes and Accuracy Capabilities

The two general classes of GPS receivers provide two very different methods by which GPS signals are processed and therefore accuracy capabilities. Carrier phase receivers use characteristics of the GPS signal (i.e. wavelength) to determine positions, while code based (C/A code) receivers rely on information imbedded in the signal.

Using correct GPS survey techniques and under the right conditions, carrier phase receivers can produce extremely accurate locations (even to a few millimeters 2dRMS). Carrier phase receivers should be used for determining locations that require a high level of accuracy. For a GIS, carrier phase receivers should be used for establishing a very accurate geodetic control network on which very accurate base maps could be generated. GIS feature locations can be determined with carrier phase receivers if the mapping project requires features to be mapped to a very high degree of accuracy (to within 1 meter). Carrier phase GPS operation is more difficult and sometimes impossible in areas that are less GPS friendly. These would include areas with significant obstructions (buildings and tree canopy) that might block or weaken GPS signals.

In most DEP cases, feature mapping for a GIS can be accomplished with data collected with a code based GPS receiver. The DEP recommends that code based GPS receivers for GIS data collection be 6 or more channels (enabling better performance under adverse conditions), and be capable of storing position fix data (allowing post processed differential corrections). All GPS data collected for NJDEP's GIS must be differentially corrected, either in a post process step or in real time. If correct procedures and proper techniques are employed, code based receivers should provide a degree of horizontal accuracy acceptable for most mapping applications (to within 5 meters 2dRMS). Code based receivers cannot be relied upon for accurate elevation data. Elevation values derived by code based GPS receivers may be in error 2 to 4 times the error of the horizontal measurement.

For point features (well locations, sampling stations, pollution sources, etc.) a sample of 200 positions fixes must be collected with PDOP  $\leq 6$ . Linear features (trails, shoreline boundaries, etc.) may also be mapped using GPS by storing position fixes while tracing the feature on foot or in vehicle.

#### Sources of GPS Base Data

There are several sources of GPS base data in New Jersey. This reference data is necessary for differential GPS. For greater accuracy, users should obtain base data from the source nearest the project area.

The DEP/BGIA operates a Trimble Navigation Pathfinder Community Base Station in Trenton. This station stores GPS base data and makes the files available through an electronic bulletin board system (BBS). The phone number to access the BBS is (609) 633-0511. The logging hours of the receiver are Monday through Friday, 7 am to 7 pm. The BBS is operational seven days a week, 24 hours a day. The base data collected by this station can only be used to differentially correct data from Trimble code based receivers (Pathfinder series). In order for the data to be compatible with other GPS receiver manufacturer's (such as Magellan, or Garmin) file formats, the Trimble file format must be converted to RINEX format. DEP does not provide RINEX base files.

The U.S. Environmental Protection Agency's Region II office located in Edison operates a similar station. The phone number to access the EPA BBS is (908) 321-6663. The logging hours of the station are seven days a week, 7 am to 7 pm. The BBS is operational seven days a week, 24 hours a day.

The National Oceanic and Atmospheric Administration (NOAA) operates a Continuously Operating Reference Station (CORS) at Sandy Hook, as part of a network of stations to support post processing applications. This station provides code range and carrier phase GPS data in the RINEX format. Data can be obtained via the INTERNET (<ftp://proton.ngs.noaa.gov>) and is available for 21 days. This station also broadcasts differential GPS corrections to support real-time positioning and navigation applications. For more information contact the National Geodetic Survey at (301) 731-3208. For more information on GPS refer to the 1995 New Jersey GIS Resource Guide.

### 8.0 NATIONAL MAP ACCURACY STANDARDS

#### United States National Map Accuracy Standards

U.S. Bureau of the Budget, Revised June 17, 1947

With a view to the utmost economy and expedition in producing maps which fulfill not only the broad needs for standard or principal maps, but also the reasonable particular needs of individual agencies, standards of accuracy for published maps are defined as follows:

1. **Horizontal accuracy.** For maps on publication scales larger than 1:20,000, not more than 10 percent of the points tested shall be in error by more than 1/30 inch, measured on the publication scale; for maps on publication scales of 1:20,000 or smaller, 1/50 inch. These limits of accuracy shall apply in all cases to positions of well-defined points only. Well-defined points are those that are easily visible or recoverable on the ground, such as the following: monuments or markers, such as bench marks, property boundary monuments; intersections of roads, railroads, etc.; corners of large buildings or structures (or center points of small buildings); etc. In general what is well defined will also be determined by what is plottable on the scale of the map within 1/100 inch. Thus while the intersection of two road or property lines meeting at right angles would come within a sensible interpretation, identification of the intersection of such lines meeting at an acute angle would obviously not be practicable within 1/100 inch. Similarly, features not identifiable upon the ground within close limits are not to be considered as test points within the limits quoted, even though their positions may be scaled closely upon the map. In this class would come timber lines, soil boundaries, etc.

2. **Vertical accuracy,** as applied to contour maps on all publication scales, shall be such that not more than 10 percent of the elevations tested shall be in error more than one-half the contour interval. In checking elevations taken from the map, the apparent vertical error may be decreased by assuming a horizontal displacement within the permissible horizontal error for a map of that scale.

3. **The accuracy of any map may be tested** by comparing the positions of points whose locations or elevations are shown upon it with corresponding positions as determined by surveys of a higher accuracy. Tests shall be made by the producing agency, which shall also determine which of its maps are to be tested, and the extent of such testing.

4. **Published maps meeting these accuracy requirements** shall note this fact on their legends, as follows: "This map complies with National Map Accuracy Standards."

5. **Published maps whose errors exceed those aforementioned** shall omit from their legends all mention of standard accuracy.

6. **When a published map is a considerable enlargement** of a map drawing (manuscript) or of a published map, that fact shall be stated in the legend. For example, "This map is an enlargement of a 1:20,000-scale map drawing," or "This map is an enlargement of a 1:24,000-scale published map."

7. **To facilitate ready interchange and use of basic information for map construction** among all Federal mapmaking agencies, manuscript maps and published maps, wherever economically feasible and consistent with the uses to which the map is to be put, shall conform to latitude and longitude boundaries, being 15 minutes of latitude and longitude, or 7.5 minutes, or 3¾ minutes in size.

(from Thompson, 1987)

## 9.0 DATA DICTIONARY

Example:

### DATA DICTIONARY

COVERAGE NAME: atlitum

DATA DESCRIPTION: Integrated Terrain Unit for Atlantic county.

KEYWORDS: landuse, soils, Atlantic, geology, floodprone

### CONTACTS

AGENCY: BGIA  
NAME: Larry Thornton/John Tyranski  
ADDRESS: CN 428  
Trenton, NJ 08625  
PHONE: 984-2243

### MANUSCRIPT MAP INFORMATION

BASEMAP:	Photo-Quad	COORDINATE SYSTEM:	NJ State Plane
MAP DATE:	1986	DATUM:	NAD27
SCALE:	24000	MAP ACCURACY:	NMAS
PROJECTION:	Polyconic	GEOGRAPHIC AREA:	County
MAP MEDIA:	Mylar	FEATURE TYPE:	Poly

### MAPPING METHODOLOGY AND MAPPING SOURCES:

Landuse/landcover interpreted from 1986 JSS CIR (1:58000) photos. Geology recompiled from 1906 (1:63360) Atlas Sheets. Soils recompiled from 1978 SCS Soil Survey. Floodprone areas recompiled from paper USGS flood maps (polys closed by Contractor).

### MAPPING CRITERIA:

Landuse/landcover mapped using modified Anderson, et al. (1976) classification system. Minimum mapping unit = 2.5 acres. Other sources rescaled to 1:24000 and recompiled to 1986 photoquads based on coincident features.

### MAPPING ACCURACY AND DATA LIMITATIONS:

Basemap (photoquad) feature positions are good to about  $\pm 20$  feet from locations on manuscript. Freshwater wetlands and geology are general, more detail in FWW and Cogeomap coverages.

### MAP AUTOMATION

AUTOMATION DATE: April 1994 COORDINATE SYSTEM: NJ State Plane  
DATUM: NAD83

AUTOMATION METHODS: scan  
PRODUCTION STAFF: ESRI and AIS, Redlands, CA  
AUTOMATION STATUS: complete  
DATA AVAILABILITY: QUIC150, Exabyte in Arc/INFO, EXPORT

### CARTOGRAPHIC QUALITY:

Data has not been systematically plotted on mylar and checked to basemap. Nodeerrors, labelerrors and slivers resolved. Code validity checked with FREQUENCY.

### DISTRIBUTION RESTRICTIONS:

Requires Data Distribution Agreement.

### MAP AUTOMATION

DATABASE: Info

ITEM NAME	DESCRIPTION
LAND USE	-Landuse/landcover code (four digit).
SOIL-LABEL	-SCS Soil label.
PRIM-GEOL	-Primary Geology.
SEC-GEOL	-Secondary Geology.
SURFICIAL-GEOL	-Surficial Geology.
FLOODPRONE	-Floodprone areas.
SOIL-INCLUSIONS	-Soil inclusions for polys that had soils polygons of less than 2.5 acres.
SOIL CAPS	-SCS soil labels in capitals for reselects.

### LOOKUP AND/OR RELATED DATA FILES:

Lookup tables for landuse/landcover, soils, geology and floodprone areas. Associated readme files (rdm) describe landuse/landcover.

### ATTRIBUTE QUALITY:

Frequencies run to check for valid attributes. Field checks were made for all accessible xxx9 polys. Landuse codes containing xxx9 are polygons which require field check.

### LOOKUP TABLE DESCRIPTIONS:

ATLBDRK.LUT	Bedrock geology (primary, secondary).
ATLSOILS.LUT	Soils (consult Soil Survey).
ATLFLOOD.LUT	Floodprone areas.
ATLSOILINC.LUT	Soil inclusions.
ATLLU.LUT	Landuse/landcover.
ATLSURF.LUT	Surficial geology.

## 10.0 REFERENCES

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Cowardin, L.M., et al., 1976, *Classification of Wetland and Deepwater Habitats of the United States*, U.S. Department of Interior, U.S. Fish and Wildlife Service, FWS/OBS-79/31. 103pp.

Thompson, M.M., *Maps for America*, 1987, 3rd Edition, U.S. Department of the Interior, U.S. Geological Survey, 265pp.

U.S. Department of Agriculture, Soil Conservation Service, 1984, *Photobase Map Compilation, Technical Specifications*, National Instruction No. 170-301. 30pp.

TABLE 1. NJDEP COMPATIBLE CONFIGURATIONS

PLATFORM	SUN SPARC STATION	PC
OPERATING SYSTEM	UNIX	DOS
FORMAT	ARC/INFO *IMPORT *EXPORT DXF	FLAT ASCII (SDF) ARC/INFO *IMPORT *EXPORT

SOFTWARE	TAR CPIO	DXF VARIOUS
MEDIA	150 MB TAPE 3½" HD 1.44MB CD-ROM EXABYTE (2.3/5GB)	5¼" (1.2MB) 3½" MB 120/250MB QIC120 *COLORADO *MAYNARD

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- 114 Woodbury
- 115 Runnemede NJ
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- 127 Pitman West NJ
- 128 Pitman East NJ
- 129 Williamstown NJ
- 130 Hammonton NJ
- 131 Atsion NJ
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- 133 Oswego Lake NJ
- 134 West Creek NJ
- 135 Ship Bottom NJ
- 136 Long Beach NE NJ
- 137 Delaware City DEL-NJ
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- 139 Alloway NJ
- 140 Elmer NJ
- 141 Newfield NJ
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- 175 Stone Harbor NJ
- 177 Cape May NJ
- 178 Wildwood NJ
- 974 Sandy Hook East
- 983 Long Branch East
- 992 Asbury Park East
- 9173 Sea Isle City East

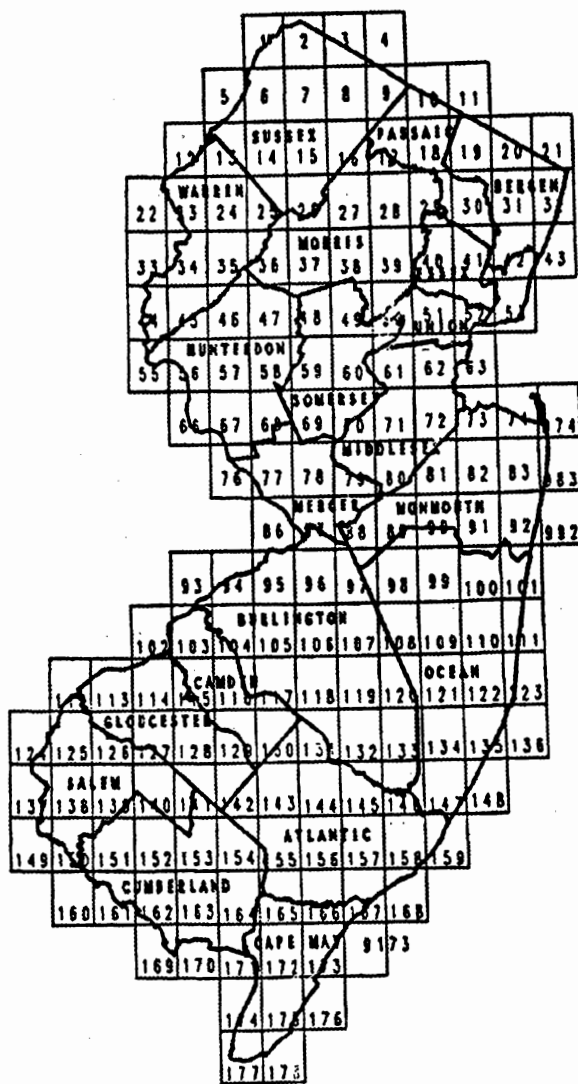


Figure 1

## 1986 TOPOQUAD AND PHOTOQUAD INDEX

TO 7.5 MINUTE (1:24000) SERIES USGS &amp; DEP BASEMAPS

- |                             |                             |
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| 2 Port Jervis Souyh NJ-NYPA | 94 Beverly PA-NJ            |
| 3 Unionville NY-NJ          | 94 Beverly PA-NJ            |
| 4 Pine Island NY-NJ         | 94 Beverly PA-NJ            |
| 5 Lake Maskenozha PA-NJ     | 96 Columbus NJ              |
| 6 Culvers Gap NJ-PA         | 97 New Egypt NJ             |
| 7 Branchville NJ            | 98 Cassville NJ             |
| 8 Hamburg NJ                | 99 Lakehurst NJ             |
| 9 Wawayanda NJ-NY           | 100 Lakewood NJ             |
| 10 Greenwood Lake NY-NJ     | 101 Point Pleasant NJ       |
| 11 Sloatsburg NY-NJ         | 102 Philadelphia PA-NJ      |
| 12 Bushkill PA-NJ           | 103 Camden NJ-PA            |
| 13 Flatbrookville NJ-PA     | 104 Moorestown NJ           |
| 14 Newton West NJ           | 105 Mount Holly NJ          |
| 15 Newton East NJ           | 106 Pemberton NJ            |
| 16 Franklin NJ              | 107 Browns Mills NJ         |
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| 18 Wanaque NJ               | 109 Keswick Grove NJ        |
| 19 Ramsey NJ-NY             | 110 Toms River NJ           |
| 20 Park Ridge NJ-NY         | 111 Seaside Park NJ         |
| 21 Nyack NY-NJ              | 112 Marcus Hook PA-NJ-DEL   |
| 22 Stroudsburg PA-NJ        | 113 Bridgeport NJ-PA        |
| 23 Portland NJ-PA           | 114 Woodbury                |
| 24 Blairstown NJ            | 115 Runnemede NJ            |
| 25 Tranquility NJ           | 116 Clementon NJ            |
| 26 Stanhope NJ              | 117 Medford Lakes NJ        |
| 27 Dover NJ                 | 118 Indian Mills NJ         |
| 28 Boonton NJ               | 119 Chatsworth NJ           |
| 29 Pompton Plains NJ        | 120 Woodmansie NJ           |
| 30 Paterson NJ              | 121 Brookville NJ           |
| 31 Hackensack NJ            | 122 Forked River NJ         |
| 32 Yonkers NJ-NY            | 123 Barnegat Light NJ       |
| 33 Bangor PA-NJ             | 124 Wilmington South DEL-NJ |
| 34 Belvidere NJ-PA          | 125 Penns Grove NJ-DEL      |
| 35 Washington NJ            | 126 Woodstown NJ            |
| 36 Hackettstown NJ          | 127 Pitman West NJ          |
| 37 Chester NJ               | 128 Pitman East NJ          |
| 38 Mendham NJ               | 129 Williamstown NJ         |
| 39 Morristown               | 130 Hammonton NJ            |
| 40 Caldwell NJ              | 131 Atsion NJ               |
| 41 Orange, NJ               | 132 Jenkins NJ              |
| 42 Weehawken NJ-NY          | 133 Oswego Lake NJ          |
| 43 Central Park NY-NJ       | 134 West Creek NJ           |
| 44 Easton NJ-PA             | 135 Ship Bottom NJ          |
| 45 Bloomsbury NJ            | 136 Long Beach NE NJ        |
| 46 High Bridge NJ           | 137 Delaware City DEL-NJ    |
| 47 Califton NJ              | 138 Salem NJ                |
| 48 Gladstone NJ             | 139 Alloway NJ              |
| 49 Bernardsville NJ         | 140 Elmer NJ                |
| 50 Chatham NJ               | 141 Newfield NJ             |
| 51 Roselle NJ               | 142 Buena NJ                |
| 52 Elizabeth NJ-NY          | 143 Newtonville NJ          |
| 53 Jersey City NJ-NY        | 144 Egg Harbor City NJ      |
| 55 Riegelsville PA-NJ       | 145 Green Brook NJ          |
| 56 Fre nchtown NJ-PA        | 146 New Gretna NJ           |
| 57 Pittstown NJ             | 147 Tuckerton NJ            |
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| 91 Farmingdale NJ           | 177 Cape May NJ             |
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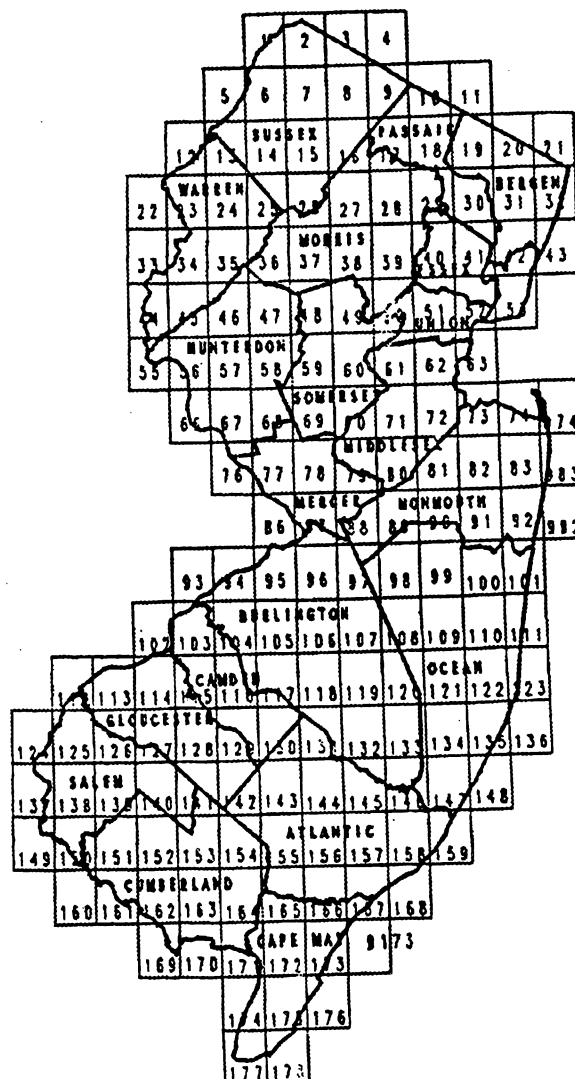


Figure 2

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New Rule, R.1996 d.252, effective June 3, 1996.

See: 27 N.J.R. 2337(a), 27 N.J.R. 2882(a), 28 N.J.R. 2858(a).