# *Environmental Compliance Survey Final Report*

*Prepared for*

# *The Federal Bureau of Prisons FCI Schuylkill*

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# Environmental Compliance Survey of Federal Bureau of Prisons
# FCI Schuylkill
# Performed By Aarcher Inc.

## I Executive Summary

A. An environmental compliance survey was conducted by Aarcher Inc. for the Federal Bureau of Prisons; Federal Correctional Institution (FCI) Schuylkill, Schuylkill County, Pennsylvania. Jay Collert performed the survey for Aarcher Inc. Representatives from the Bureau of Prisons included Steven Flannery, Joseph Reed, Walter Richardson and Chris Rey.

B. The survey, conducted at FCI Schuylkill, is located in north-central Schuylkill County, 15 miles northwest of Pottsville, 46 miles north of Harrisburg, and 175 miles north of Washington, D.C.

C. The Federal Correctional Institution (FCI) - Schuylkill in Minersville, Pennsylvania, is a medium security facility housing male offenders. An adjacent minimum security satellite prison camp also houses male offenders.

D. According to the pre-survey information data sheet submitted prior to the survey, and the BOP website, FCI Schuylkill has an inmate population of approximately 1,581.

E. The survey was performed using state and federal-specific protocols dated April 2008. Survey findings are categorized into the following areas:

   a. Priority 1: Areas with actual or potential immediate harm to human health or the environment, potential for significant liability, or other potential to inhibit the institution from meeting its mission or the mission of the Federal Bureau of Prisons.

   b. Priority 2: Regulatory findings that are not Priority 1. These include Federal and state laws, regulations, and applicable Executive Orders.

   c. Priority 3: Non-regulatory findings that are not Priority 1 or Priority 2.

F. FCI Schuylkill is located in Pennsylvania and applicable protocols for that state were used. Items that have no state equivalence or when the state incorporates by reference the Federal requirement, the Federal citation is indicated and used. The compliance areas surveyed and a summary of findings in each of the different levels are as follows:

1. Air Emissions
   a- Priority 1: - 0
   b- Priority 2: - 2
   c- Priority 3: - 0
2. Water Quality
   a- Priority 1: - 0
   b- Priority 2: - 0
   c- Priority 3: - 0
3. Waste water Quality
   a- Priority 1: - 0
   b- Priority 2: - 2
   c- Priority 3: - 0
4. Hazardous Waste Management
   a- Priority 1: - 0
   b- Priority 2: - 1
   c- Priority 3: - 0
5. Universal Waste/Used Oil Management
   a- Priority 1: - 0
   b- Priority 2: - 3
   c- Priority 3: - 0
6. Tank Management/SPCC
   a- Priority 1: - 0
   b- Priority 2: - 1
   c- Priority 3: - 0
7. EPCRA
   a- Priority 1: - 0
   b- Priority 2: - 2
   c- Priority 3: - 0

8. Oils/Hazardous Substances Spills and Reporting
   a- Priority 1: - 0
   b- Priority 2: - 0
   c- Priority 3: - 0
9. Medical/Bio Wastes
   a- Priority 1: - 0
   b- Priority 2: - 0
   c- Priority 3: - 0
10. Environmental Training
   a- Priority 1: - 0
   b- Priority 2: - 2
   c- Priority 3: - 0
11. Miscellaneous Requirements
   a- Priority 1: - 0
   b- Priority 2: - 1
   c- Priority 3: - 0

G. As part of the survey, a list of all bulk storage containers holding, or having capacity to hold petroleum products as defined by 40 CFR 112.2 is included and is found at the end of the report (See section III). In addition, a list of all locations where hazardous waste was improperly stored is included in the same table.

H. The draft report submitted for review generated no comments for the BOP; consequently no findings required additional explanation.

# *II Survey Findings – FCI Schuylkill*

A. Air Emissions

1. **Audit Finding:** PRI 2 – AE – 001: Leak calculations on Refrigerant Equipment

   a- **Activity/Operation**: The institution utilizes staff personnel who repair and recycle equipment that contains refrigerants.

   b- **Requirement**: IAW 40 CFR 82.156(h), owners/operators of refrigerant-containing equipment that contains more than 50 pounds of Class I or Class II refrigerant must calculate the leak rate whenever the refrigerant-containing equipment requires recharging or a repair is necessary.

   c- **Finding**: According to facility personnel, the institution has units that hold more than 50 pounds of refrigerant. And, according to personnel, refrigerant has been added in the past, thereby requiring leak calculations. No leak calculations could be located during the survey. A form was used that had a place for the leak calculations and an example leak calculation was listed on the form, but no leak calculations were made on the units that had refrigerant added.

   d- **Recommendation**: Perform an institution-wide survey to ensure that all equipment holding more than 50lbs of Class I and Class II type refrigerants are identified. Develop a procedure that requires leak rate calculations on all equipment holding more than 50lbs of refrigerants whenever refrigerants are added due to leaks. Train all employees responsible for refrigerant recycling/recovery once those procedures are developed and implemented.

2. **Audit Finding:** PRI 2 – AE – 002: Air Permit Requirements

   a- **Activity/Operation:** The institute operates three boilers that operate on either #2 fuel oil or natural gas over the threshold that requires a permit in Pennsylvania.

   b- **Requirement:** The institute has been issued a general air operating permit (54-00049) for the three boilers in operation at the institution.

   c- **Finding:** After reviewing the records and operating logs, sections of the air permit were not being followed. A specific procedure must be followed if any visible opacity is observed from the units during the once per day inspection; the procedure was not listed in the operating procedures. The date, time, and results of the daily inspection are required; the times of the inspections were not noted on the form. Fuel certification of the #2 fuel oil is required; this certification was not found in any record. Records of sulfur and ash content of the fuel as well as the rolling averages are required for this permit; records were not found. For all of these requirements, facility personnel were unaware of the specifics in the air permit. Boiler operators were either unaware of the requirements or had not read the air permit.

d- **Recommendation:** A copy of the operating permit should be made available to boiler operators and posted in their general work area. A comprehensive reading of the permit should be performed and all applicable records, reports, and other information should be translated into a checklist and used by the boiler operators. A training session should be performed after the checklist is developed to ensure all responsible personnel are aware of the checklist and understand the contents and the purpose/importance of following all parts of the air permit.

B. Water Quality

1. **No Findings**

C. Waste Water Quality

1. **Audit Finding:** PRI 2 – WWQ – 001: Industrial User Permit

   a- **Activity/Operation:** The wastewater discharged by the institution is treated by the local Publicly-Owned Treatment Works (POTW).

   b- **Requirement:** IAW the Pretreatment requirements (40 CFR 403) the institution must follow all federal pretreatment requirements, even if the institution is not issued a formal industrial users permit by the local POTW.

   c- **Finding:** An oil/water separator was found inline with the drain to the outside wash rack. The inspection covers appeared to be sealed and did not look like any inspection had been performed recently. Institution personnel confirmed that the oil/water had not been inspected to their knowledge since it was installed. A review of the as-built plans indicates that the device installed is called a grease separator using a cartridge. In addition, the drawings were of limited value due to lack of detail and specificity (See WWQ – 002 for an additional finding due to this observation).

   d- **Recommendation:** Oil/water separators are necessary devices to protect the local POTW from harmful effects of oil from entering the plant. The devices are necessary at areas where oil could enter the sanitary system. The vehicle wash rack is clearly a place where oils could enter the sanitary system easily and frequently. Suggest the device be inspected and a determination made as to whether it is actually designed to operate as an oil/water separator and appropriate action as a result of the inspection. As a minimum, the device should be inspected frequently and maintained, such as changing out the cartridge filters the plans indicate are in the device.

2. **Audit Finding:** PRI 2 – WWQ – 002: Vehicle Wash Rack

   a- **Activity/Operation:** The institution operates a vehicle wash rack that does not have a separate permit to operate.

   b- **Requirement:** IAW the 25 PA Code §92.3, a discharge of pollutants from a point source into surface waters is prohibited without a National Pollution Discharge Elimination System (NPDES) permit.

c- **Finding:** The wash rack effluent goes through an oil/water separator and discharges either into the sanitary system or to the stormwater. Institution personnel indicated the effluent flows to the sanitary system, but there is no direct confirmation of this. The design plans do not confirm this because of the lack of details. The institution does not have a NPDES permit issued by Pennsylvania for this discharge or any other water quality discharge.

d- **Recommendation:** The wash rack effluent should be inspected to determine specifically if the effluent does go the sanitary or if it does not. If it does not, either re-plumb the line so that it is hooked up the sanitary system (and complete WWQ – 001) or apply to Pennsylvania for a state water permit to operate the vehicle wash rack.

D. Hazardous Waste Management

1. **Audit Finding:** PRI 2 – HW – 001: Hazardous Waste Management

a- **Activity/Operation:** The institute generates hazardous waste as defined by 25 PA Code 261a, which incorporates by reference 40 CFR 261.

b- **Requirement:** IAW 25 PA Code 262a, which incorporates by reference 40 CFR 262.34a, hazardous waste must be stored in containers that are compatible with the waste, must be closed except when adding or removing the waste, and must be marked hazardous waste.

c- **Finding:** At the inside electrician shop, a broken fluorescent bulb was stored in an open, unlabeled container containing spent florescent bulbs.

d- **Recommendation:** Ensure institution personnel responsible for the changing of fluorescent bulbs are aware of the need to clean up the bulbs and dispose of them as hazardous waste. In addition, a mercury clean up device capable of cleaning up the spilled mercury should be procured by the institution and applicable personnel trained on the proper operation of the device.

E. Universal Waste/Waste Oil Management

1. **Audit Finding**: PRI 2 – UW – 001: Waste Oil Labels.

a- **Activity/Operation**: The facility generates waste oil as defined by 25 PA § 298.10(a).

b- **Requirement**: IAW 25 PA § 298.22(c)(1-4), labels with the words “waste oil” will be placed on all containers/tanks/pipes holding waste oil. (Federal requirements specify a “used oil” label be on all containers. Pennsylvania requirements specify a “waste oil” label be placed on all containers.)

c- **Finding**: In the garage area, containers holding waste oil were labeled used oil.

d- **Recommendation**: Procure waste oil labels and ensure all containers/tanks/pipes holding waste oil that is to be recycled are labeled.

2. **Audit Finding**: PRI 2 – UW – 002: Universal Waste Storage.

   a- **Activity/Operation**: The facility generates universal wastes lamps as defined by 25 PA Code 266b which incorporates by reference 40 CFR 273.

   b- **Requirement**: IAW 25 PA Code 266b, which incorporates by reference 40 CFR 273.13(d) and 40 CFR 273.14, universal wastes lamps must be managed according to specific parameters. The containers must be closed except when adding or removing the universal wastes. The containers must be marked WASTE LAMP(S), USED LAMP(S), or UNIVERSAL WASTE – LAMP(S). The package must be designed so as to prevent breakage during normal handling conditions. The container must be dated or evidence provided that indicates the universal waste has not been stored onsite longer than 1 year.

   c- **Finding**: In the inside electrical shop, eight boxes of universal waste lamps were found. The boxes were not closed, not dated, and not labeled.

   d- **Recommendation**: Develop procedures which address the specific requirements for accumulating and storing universal waste lamps onsite. Train all institution personnel responsible for handling universal waste addressing the procedures developed.

3. **Audit Finding**: PRI 2 – UW – 003: Universal Waste Storage.

   a- **Activity/Operation**: The facility generates universal wastes lamps as defined by 25 PA Code 266b which incorporates by reference 40 CFR 273.

   b- **Requirement**: IAW 25 PA Code 266b, which incorporates by reference 40 CFR 273.13(d) and 40 CFR 273.14, universal wastes lamps must be managed according to specific parameters. The containers must be closed except when adding or removing the universal wastes. The containers must be marked WASTE LAMP(S), USED LAMP(S), or UNIVERSAL WASTE – LAMP(S). The package must be designed so as to prevent breakage during normal handling conditions. The container must be dated or evidence provided that indicates the universal waste has not been stored onsite longer than 1 year.

   c- **Finding**: At the outside landscape building, six boxes of universal waste lamps were found. The containers were stored open, not dated, and not labeled.

   d- **Recommendation**: Develop procedures which address the specific requirements for accumulating and storing universal waste onsite. Train all institution personnel responsible for handling universal waste addressing the procedures developed.

F. Tank Management/SPCC

1. **Audit Finding**: PRI 2 – TM – 001: Incomplete ICP/SPCC

   a- **Activity/Operation**: The institution stores in above ground containers/tanks over 1,320 gallons of oil/petroleum.

b- **Requirement**: IAW 40 CFR 112.7, facilities that have more than 1,320 gallons of oil/petroleum in above ground storage tanks must prepare and maintain a Spill Prevention, Controls and Countermeasures Plan (SPCC). The SPCC Plan, at the discretion of the facility, may be combined into an Integrated Contingency Plan as long as all of the SPCC elements are contained in the plan and a cross reference is included if the plan does not follow the order listed in 40 CFR 112.7.

c- **Finding**: After reviewing the ICP, none of the required SPCC elements could be found.

d- **Recommendation**: An SPCC plan should be developed following all of the elements from 40 CFR 112. Once developed, comply with all requirements listed in the SPCC plan.

G. Emergency Planning and Community-Right-to-Know (EPCRA)

1. **Audit Finding**: PRI 2-EM-001: Toxic Release Inventory (TRI) Report

a- **Activity/Operation**: This facility otherwise uses EPCRA Section 313 chemicals and chemical compounds.

b- **Requirement**: IAW Executive Order 13423, federal facilities must comply with all sections of EPCRA, including Section 313. The TRI report is due each July 1.

c- **Finding**: After interviewing institution personnel, no documentation could be found to determine compliance with this requirement. Compliance with EPCRA requires calculations to be completed to ensure reporting either does or does not have to be accomplished. To accomplish this process, the list of Section 313 chemicals must be used to determine if Section 313 reporting is required.

d- **Recommendation**: EPCRA considers all adjacent and contiguous properties, under a single ownership or control, to be one facility. Therefore, for calculation purposes, the entire facility would be counted cumulatively. Suggest a calculation be completed to see if any EPCRA chemicals would have to be reported under Section 313: specifically, mercury, lead, and any other EPCRA 313 chemicals or chemical compounds over the threshold for reporting.

2. **Audit Finding**: PRI 2-EM-002: Pennsylvania Hazardous Substances/Environmental Hazardous Lists

a- **Activity/Operation**: This institution orders and uses chemicals found on the Pennsylvania state-specific hazardous substances list (34 PA Code 323, Appendix A).

b- **Requirement**: IAW 34 PA Code 303, an employer in the state of Pennsylvania must identify the presence of Special Hazardous Substances (34 PA Code 323.2) and chemicals considered Environmental Hazards (34 PA Code 323.3).

c- **Finding**: After interviewing institution personnel, this requirement has not been performed. During the site visit, phosphoric acid was found on-site, which is on the list of Environmental Hazards. In addition to identifying the specific chemicals, 34 PA Code 311 requires a posting of all Special Hazardous Substances and the list of Environmental Hazardous for the employees of the institution. If Special Hazardous Substances are found, an annual report must be sent to Pennsylvania (34 PA Code 323).

d- **Recommendation**: Using the Special Hazardous Substances list at 34 PA Code 323, Appendix A, identify all chemicals on the list and take the appropriate action as outlined in 34 PA Code 311 and 34 PA Code 323

H. Oils and Hazardous Substances Spills and Reporting

1. **No findings found in this area.**

I. Medical/Biohazard Wastes

1. **No findings found in this area**.

J. Environmental Training

1. **Audit Finding**: PRI 2-TNG-001: SPCC Training

a- **Activity/Operation**: The institution stores in above ground containers/tanks over 1,320 gallons of oil/petroleum.

b- **Requirement**: IAW 40 CFR 112.7(f)(3), all oil handling employees must be trained at least once a year to ensure adequate understanding of the SPCC plan.

c- **Finding**: No record of this training could be located at the institution.

d- **Recommendation**: Start training all oil handling employees at least once a year and document the training and the personnel who attended.

2. **Audit Finding**: PRI 2-TNG-002 – HAZMAT Transportation Training

a- **Activity/Operation**: The institution orders, and causes to be shipped in commerce, hazardous materials and hazardous wastes as defined by the Department of Transportation (DOT). These tasks require employees to be trained in DOT hazardous materials transportation.

b- **Requirement**: IAW 49 CFR 172.704(a), 172.704(b), 172.704(c)(3), 172.704(e), and 173.1(b), employees involved in the transportation of hazardous materials and hazardous wastes are required to be trained according to DOT requirements. DOT training is divided into 4 areas for employees in this facility; Awareness training, Function-specific training, Safety training, and Security training. All four sections of training must be accomplished within 90-days an employee becomes involved with DOT transportation duties. And, this training must be refreshed every three years (49 CFR 172.704(c)(1) through 172.704(c)(3)).

c- **Finding**: According to institution personnel, only one person is trained for DOT related tasks, but other personnel are actually signing documents for

outbound shipments of hazardous materials (waste oil and universal wastes).

d- **Recommendation**: Ensure all employees tasked with DOT-related activities are trained within 90-days of starting those duties. And, ensure anyone not trained to this standard is not allowed to perform DOT-related tasks.

B. Miscellaneous Findings

1. **Audit Finding:** PRI 2 – MISC – 001: Restricted use pesticides

a- **Activity/Operation:** A restricted use pesticide was found at the institution.

b- **Requirement:** IAW 7 PA Code 128.41, personnel who apply or supervise the application of a restricted use pesticide on property owned by his/her employer when the pesticide is not applied for the purpose of producing an agricultural product must have a pesticide applicators license.

c- **Finding**: The restricted use pesticide was found and was being used at the institution. The application was being performed by an unlicensed applicator.

d- **Recommendation**: Either remove this and all restricted use pesticides and ensure none are allowed at the institution or have someone at the institution become a licensed pesticide applicator and follow all the requirements when applying a restricted use pesticide.

## *III Additional Information*

The following table lists the quantity, type, and locations of all bulk storage containers and the quantity, type, and location of improperly stored hazardous waste.

| **Material/Waste** | **Location** | **Quantity** |
|---|---|---|
| Waste oil | Garage area – drums | 220 gals |
| Engine oil | Garage area – drums | 385 gals |
| Hydraulic oil | Garage area – drum | 55 gals |
| Transmission oil | Garage area – drum | 55 gals |
| Two-stroke oil | Garage area – drum | 55 gals |
| Diesel fuel | Powerhouse day tank - AGST | 100 gals |
| Diesel fuel | Pump house tank – AGST | 300 gals |
| Heating oil | Powerhouse – USTs | 40,000 gals |
| Diesel fuel | Garage – UST | 25,000 gals |
| Gasoline | Garage – UST | 20,000 gals |
| Grease, food grade | Kitchen – drums | 385 gals |
| Broken fluorescent tubes | Inside electrician shop | 1 tube |

## *IV Federal Rules*

The following citations were used to support the findings based on federal regulations. The citations are listed in numeric order.

more than 1.5% of the refrigerant received by them.

(j) Effective November 15, 1993, no person may sell or distribute, or offer for sale or distribution, any appliances, except small appliances, unless such equipment is equipped with a servicing aperture to facilitate the removal of refrigerant at servicing and disposal.

(k) Effective November 15, 1993, no person may sell or distribute, or offer for sale or distribution any small appliance unless such equipment is equipped with a process stub to facilitate the removal of refrigerant at servicing and disposal.

(l) No technician training or testing program may issue certificates pursuant to §82.161 unless the program complies with all of the standards of §82.161 and appendix D, and has been granted approval.

(m) No person may sell or distribute, or offer for sale or distribution, any substance that consists in whole or in part of a class I or class II substance for use as a refrigerant to any person unless:

(1) The buyer has been certified as a Type I, Type II, Type III, or Universal technician pursuant to §82.161;

(2) The buyer complies with §82.166(b) and employs at least one technician who is certified as a Type I, Type II, Type III, or Universal technician in accordance with §82.161;

(3) The buyer has been certified in accordance with 40 CFR part 82, subpart B and the refrigerant is either R–12 or an approved substitute consisting wholly or in part of a class I or class II substance for use in motor vehicle air conditioners in accordance with 40 CFR part 82, subpart G;

(4) The buyer complies with §82.166 (b) and employs at least one technician who is certified in accordance with 40 CFR part 82, subpart B, and the refrigerant is either R–12 or an approved substitute consisting wholly or in part of a class I or class II substance for use in motor vehicle air conditioners pursuant to 40 CFR part 82, subpart G. Nothing in this provision shall be construed to relieve persons of the requirements of §82.34(b) or §82.42 (b);

(5) The refrigerant is sold only for eventual resale to certified technicians or to appliance manufacturers (*e.g.*, sold by a manufacturer to a wholesaler, sold by a technician to a reclaimer);

(6) The refrigerant is sold to an appliance manufacturer;

(7) The refrigerant is contained in an appliance with a fully assembled refrigerant circuit; or

(8) The refrigerant is charged into an appliance by a certified technician or an apprentice during maintenance, service, or repair of the appliance.

(n) It is a violation of this subpart to accept a signed statement pursuant to §82.156(f)(2) if the person knew or had reason to know that such a signed statement is false.

(o) Rules stayed for consideration. Not withstanding any other provisions of this subpart, the effectiveness of 40 CFR 82.154(m), only as it applies to refrigerant contained in appliances without fully assembled refrigerant circuits, is stayed from April 27, 1995, until EPA takes final action on its reconsideration of these provisions. EPA will publish any such final action in the FEDERAL REGISTER.

(p) No person may manufacture or import one-time expansion devices that contain other than exempted refrigerants.

[58 FR 28712, May 14, 1993, as amended at 59 FR 42956, Aug. 19, 1994; 59 FR 55926, Nov. 9, 1994; 60 FR 14610, Mar. 17, 1995; 60 FR 24680, May 9, 1995; 61 FR 7726, Feb. 29, 1996; 61 FR 68508, Dec. 27, 1996; 68 FR 43806, July 24, 2003; 69 FR 11979, Mar. 12, 2004; 70 FR 19278, Apr. 13, 2005]

### §82.156 Required practices.

(a) All persons disposing of appliances, except for small appliances, MVACs, and MVAC-like appliances must evacuate the refrigerant, including all the liquid refrigerant, in the entire unit to a recovery or recycling machine certified pursuant to §82.158. All persons opening appliances except for MVACs and MVAC-like appliances for maintenance, service, or repair must evacuate the refrigerant, including all the liquid refrigerant (except as provided in paragraph (a)(2)(i)(B) of this section), in either the entire unit or the part to be serviced (if the latter can be isolated) to a system receiver (*e.g.*, the remaining portions of the appliance, or a specific vessel within the appliance) or a recovery or recycling

machine certified pursuant to § 82.158. A technician must verify that the applicable level of evacuation has been reached in the appliance or the part before it is opened.

(1) Persons opening appliances except for small appliances, MVACs, and MVAC-like appliances for maintenance, service, or repair must evacuate to the levels in table 1 before opening the appliance, unless

(i) Evacuation of the appliance to the atmosphere is not to be performed after completion of the maintenance, service, or repair, and the maintenance, service, or repair is not major as defined at § 82.152; or

(ii) Due to leaks in the appliance, evacuation to the levels in table 1 is not attainable, or would substantially contaminate the refrigerant being recovered; or

(iii) The recycling or recovery equipment was certified pursuant to § 82.158(b)(2). In any of these cases, the requirements of § 82.156(a)(2) must be followed.

(2)(i) If evacuation of the appliance to the atmosphere is not to be performed after completion of the maintenance, service, or repair, and if the maintenance, service, or repair is not major as defined at § 82.152, the appliance must:

(A) Be evacuated to a pressure no higher than 0 psig before it is opened if it is a high- or very high-pressure appliance;

(B) Be pressurized to a pressure no higher than 0 psig before it is opened if it is a low-pressure appliance. Persons must cover openings when isolation is not possible. Persons pressurizing low-pressure appliances that use refrigerants with boiling points at or below 85 degrees Fahrenheit at 29.9 inches of mercury (standard atmospheric pressure), (*e.g.* R–11 and R–123), must not use methods such as nitrogen, that require subsequent purging. Persons pressurizing low-pressure appliances that use refrigerants with boiling points above 85 degrees Fahrenheit at 29.9 inches of mercury, *e.g.*, R–113, must use heat to raise the internal pressure of the appliance as much as possible, but may use nitrogen to raise the internal pressure of the appliance from the level attainable through use of heat to atmospheric pressure; or

(C) For the purposes of oil changes, be evacuated or pressurized to a pressure no higher than 5 psig, before it is opened; or drain the oil into a system receiver to be evacuated or pressurized to a pressure no higher than 5 psig.

(ii) If, due to leaks in the appliance, evacuation to the levels in table 1 is not attainable, or would substantially contaminate the refrigerant being recovered, persons opening the appliance must:

(A) Isolate leaking from non-leaking components wherever possible;

(B) Evacuate non-leaking components to be opened to the levels specified in table 1; and

(C) Evacuate leaking components to be opened to the lowest level that can be attained without substantially contaminating the refrigerant. In no case shall this level exceed 0 psig.

(iii) If the recycling or recovery equipment was certified pursuant to § 82.158(b)(2), technicians must follow the manufacturer's directions for achieving the required recovery efficiency.

(3) Persons disposing of appliances except for small appliances, MVACs, and MVAC-like appliances, must evacuate to the levels in table 1 unless, due to leaks in the appliance, evacuation to the levels in table 1 is not attainable, or would substantially contaminate the refrigerant being recovered. If, due to leaks in the appliance, evacuation to the levels in table 1 is not attainable, or would substantially contaminate the refrigerant being recovered, persons disposing of the appliance must:

(i) Isolate leaking from non-leaking components wherever possible;

(ii) Evacuate non-leaking components to the levels specified in table 1; and

(iii) Evacuate leaking components to the lowest level that can be attained without substantially contaminating the refrigerant. In no case shall this level exceed 0 psig.

TABLE 1—REQUIRED LEVELS OF EVACUATION FOR APPLIANCES

[Except for small appliances, MVACs, and MVAC-like appliances]

| Type of appliance | Inches of Hg vacuum (relative to standard atmospheric pressure of 29.9 inches Hg) | |
|---|---|---|
| | Using recovery or recycling equipment manufactured or imported before November 15, 1993 | Using recovery or recycling equipment manufactured or imported on or after November 15, 1993 |
| Very high-pressure appliance | 0 | 0 |
| High-pressure appliance, or isolated component of such appliance, normally containing less than 200 pounds of refrigerant. | 0 | 0 |
| High-pressure appliance, or isolated component of such appliance, normally containing 200 pounds or more of refrigerant. | 4 | 10 |
| Medium-pressure appliance, or isolated component of such appliance, normally containing less than 200 pounds of refrigerant. | 4 | 10 |
| Medium-pressure appliance, or isolated component of such appliance, normally containing 200 pounds or more of refrigerant. | 4 | 15 |
| Low-pressure appliance | 25 | 25 mm Hg absolute |

(4) Persons opening small appliances for maintenance, service, or repair must:

(i) When using recycling and recovery equipment manufactured before November 15, 1993, recover 80% of the refrigerant in the small appliance; or

(ii) When using recycling or recovery equipment manufactured on or after November 15, 1993, recover 90% of the refrigerant in the appliance when the compressor in the appliance is operating, or 80% of the refrigerant in the appliance when the compressor in the appliance is not operating; or

(iii) Evacuate the small appliance to four inches of mercury vacuum.

(5) Persons opening MVAC-like appliances for maintenance, service, or repair may do so only while properly using, as defined at § 82.32(e), recycling or recovery equipment certified pursuant to § 82.158 (f) or (g), as applicable.

(b) All persons opening appliances except for small appliances, MVACs, and MVAC-like appliances for maintenance, service, or repair and all persons disposing of appliances except small appliances, MVACs, and MVAC-like appliances must have at least one piece of certified, self-contained recovery or recycling equipment available at their place of business. Persons who maintain, service, repair, or dispose of only appliances that they own and that contain pump-out units are exempt from this requirement. This exemption does not relieve such persons from other applicable requirements of this section.

(c) System-dependent equipment shall not be used with appliances normally containing more than 15 pounds of refrigerant, unless the system-dependent equipment is permanently attached to the appliance as a pump-out unit.

(d) All recovery or recycling equipment shall be used in accordance with the manufacturer's directions unless such directions conflict with the requirements of this subpart.

(e) Refrigerant may be returned to the appliance from which it is recovered or to another appliance owned by the same person without being recycled or reclaimed, unless the appliance is an MVAC or MVAC-like appliance.

(f) Effective July 13, 1993, persons who take the final step in the disposal process (including but not limited to scrap recyclers and landfill operators) of a small appliance, room air conditioning, MVACs, or MVAC-like appliances must either:

(1) Recover any remaining refrigerant from the appliance in accordance with paragraph (g) or (h) of this section, as applicable; or

(2) Verify that the refrigerant has been evacuated from the appliance or shipment of appliances previously. Such verification must include a signed statement from the person from

whom the appliance or shipment of appliances is obtained that all refrigerant that had not leaked previously has been recovered from the appliance or shipment of appliances in accordance with paragraph (g) or (h) of this section, as applicable. This statement must include the name and address of the person who recovered the refrigerant and the date the refrigerant was recovered or a contract that refrigerant will be removed prior to delivery.

(3) Persons complying with paragraph (f)(2) of this section must notify suppliers of appliances that refrigerant must be properly removed before delivery of the items to the facility. The form of this notification may be warning signs, letters to suppliers, or other equivalent means.

(g) All persons recovering refrigerant from MVACs and MVAC-like appliances for purposes of disposal of these appliances must reduce the system pressure to or below 102 mm of mercury vacuum, using equipment that meets the standards set forth in § 82.158(l).

(h) All persons recovering the refrigerant from small appliances for purposes of disposal of these appliances must either:

(1) Recover 90% of the refrigerant in the appliance when the compressor in the appliance is operating, or 80% of the refrigerant in the appliance when the compressor in the appliance is not operating; or

(2) Evacuate the small appliance to four inches of mercury vacuum.

(i)(1) Owners or operators of commercial refrigeration equipment normally containing more than 50 pounds of refrigerant must have leaks repaired in accordance with paragraph (i)(9) of this section, if the appliance is leaking at a rate such that the loss of refrigerant will exceed 35 percent of the total charge during a 12-month period, except as described in paragraphs (i)(6), (i)(8), and (i)(10) of this section and paragraphs (i)(1)(i), (i)(1)(ii), and (i)(1)(iii) of this section. Repairs must bring the annual leak rate to below 35 percent.

(i) If the owners or operators of the federally-owned commercial refrigerant appliances determine that the leaks cannot be repaired in accordance with paragraph (i)(9) of this section and that an extension in accordance with the requirements discussed in this paragraph (i)(1)(i) of this section apply, they must document all repair efforts, and notify EPA of their inability to comply within the 30-day repair requirement, and the reason for the inability must be submitted to EPA in accordance with § 82.166(n). Such notification must be made within 30 days of discovering the leaks. EPA will determine if the extension requested in accordance with the requirements discussed in paragraph (i)(1)(i) of this section is justified. If the extension is not justified, EPA will notify the owner/operator within 30 days of receipt of the notification.

(ii) Owners or operators of federally-owned commercial refrigeration equipment may have more than 30 days to repair leaks if the refrigeration appliance is located in an area subject to radiological contamination or where the shutting down of the appliance will directly lead to radiological contamination. Only the additional time needed to conduct and complete repairs in a safe working environment will be permitted.

(iii) Owners or operators of federally-owned commercial refrigeration equipment requesting or who are granted time extensions under this paragraph must comply with paragraphs (i)(3) and (i)(4) of this section.

(2) The owners or operators of industrial process refrigeration equipment normally containing more than 50 pounds of refrigerant must have leaks repaired if the appliance is leaking at a rate such that the loss of refrigerant will exceed 35 percent of the total charge during a 12-month period in accordance with paragraph (i)(9) of this section, except as described in paragraphs (i)(6), (i)(7) and (i)(10) of this section, and paragraphs (i)(2)(i) and (i)(2)(ii) of this section. Repairs must bring annual leak rates to below 35 percent during a 12-month period. If the owners or operators of the industrial process refrigeration equipment determine that the leak rate cannot be brought to below 35 percent during a 12-month period within 30 days (or 120 days, where an industrial process shutdown in accordance with paragraph (i)(2)(ii) of this section is required,) and

in accordance with paragraph (i)(9) of this section, and that an extension in accordance with the requirements discussed in this paragraph apply, the owners or operators of the appliance must document all repair efforts, and notify EPA of the reason for the inability in accordance with §82.166(n) within 30 days of making this determination. Owners or operators who obtain an extension pursuant to this section or elect to utilize the additional time provided in paragraph (i)(2)(i) of this section, must conduct all necessary leak repairs, if any, that do not require any additional time beyond the initial 30 or 120 days.

(i) The owners or operators of industrial process refrigeration equipment are permitted more than 30 days (or 120 days where an industrial process shutdown in accordance with paragraph (i)(2)(ii) of this section is required) to repair leaks, if the necessary parts are unavailable or if requirements of other applicable federal, state, or local regulations make a repair within 30 or 120 days impossible. Only the additional time needed to receive delivery of the necessary parts or to comply with the pertinent regulations will be permitted.

(ii) Owners or operators of industrial process refrigeration equipment will have a 120-day repair period, rather than a 30-day repair period, to repair leaks in instances where an industrial process shutdown is needed to repair a leak or leaks from industrial process refrigeration equipment.

(3) Owners or operators of industrial process refrigeration equipment and owners or operators of federally-owned commercial refrigeration equipment or of federally-owned comfort cooling appliances who are granted additional time under paragraphs (i)(1) or (i)(5) of this section, must have repairs performed in a manner that sound professional judgment indicates will bring the leak rate below the applicable allowable leak rate. When an industrial process shutdown has occurred or when repairs have been made while an appliance is mothballed, the owners or operators shall conduct an initial verification test at the conclusion of the repairs and a follow-up verification test. The follow-up verification test shall be conducted within 30 days of completing the repairs or within 30 days of bringing the appliance back on-line, if taken off-line, but no sooner than when the appliance has achieved normal operating characteristics and conditions. When repairs have been conducted without an industrial process shutdown or system mothballing, an initial verification test shall be conducted at the conclusion of the repairs, and a follow-up verification test shall be conducted within 30 days of the initial verification test. In all cases, the follow-up verification test shall be conducted at normal operating characteristics and conditions, unless sound professional judgment indicates that tests performed at normal operating characteristics and conditions will produce less reliable results, in which case the follow-up verification test shall be conducted at or near the normal operating pressure where practicable, and at or near the normal operating temperature where practicable.

(i) If the owners or operators of industrial process refrigeration equipment takes the appliance off-line, or if the owners or operators of federally-owned commercial refrigeration or of federally-owned comfort cooling appliances who are granted additional time under paragraphs (i)(1) or (i)(5) of this section take the appliance off-line, they cannot bring the appliance back on-line until an initial verification test indicates that the repairs undertaken in accordance with paragraphs (i)(1)(i), (ii), (iii), or (i)(2)(i) and (ii), or (5)(i), (ii), and (iii) of this section have been successfully completed, demonstrating the leak or leaks are repaired. The owners or operators of the industrial process refrigeration equipment, federally-owned commercial refrigeration appliances, or federally-owned comfort cooling appliances are exempted from this requirement only where the owners or operators will retrofit or retire the industrial process refrigeration equipment, federally-owned commercial refrigeration appliance, or federally-owned comfort cooling appliance in accordance with paragraph (i)(6) of this section. Under this exemption, the

owner or operators may bring the industrial process refrigeration equipment, federally-owned commercial refrigeration appliance, or federally-owned comfort cooling appliance back on-line without successful completion of an initial verification test.

(ii) If the follow-up verification test indicates that the repairs to industrial process refrigeration equipment, federally-owned commercial refrigeration equipment, or federally-owned comfort cooling appliances have not been successful, the owner or operator must retrofit or retire the equipment in accordance with paragraph (i)(6) and any such longer time period as may apply under paragraphs (i)(7)(i), (ii) and (iii) or (i)(8)(i) and (ii) of this section. The owners and operators of the industrial process refrigeration equipment, federally-owned commercial refrigeration equipment, or federally-owned comfort cooling appliances are relieved of this requirement if the conditions of paragraphs (i)(3)(iv) and/or (i)(3)(v) of this section are met.

(iii) The owner or operator of industrial process refrigeration equipment that fails a follow-up verification test must notify EPA within 30 days of the failed follow-up verification test in accordance with § 82.166(n).

(iv) The owner or operator is relieved of the obligation to retrofit or replace the industrial process refrigeration equipment as discussed in paragraph (i)(6) of this section if second repair efforts to fix the same leaks that were the subject of the first repair efforts are successfully completed within 30 days or 120 days where an industrial process shutdown is required, after the initial failed follow-up verification test. The second repair efforts are subject to the same verification requirements of paragraphs (i)(3), (i)(3) (i) and (ii) of this section. The owner or operator is required to notify EPA within 30 days of the successful follow-up verification test in accordance with § 82.166(n) and the owner or operator is no longer subject to the obligation to retrofit or replace the appliance that arose as a consequence of the initial failure to verify that the leak repair efforts were successful.

(v) The owner or operator of industrial process refrigeration equipment is relieved of the obligation to retrofit or replace the equipment in accordance with paragraph (i)(6) of this section if within 180 days of the initial failed follow-up verification test, the owner or operator establishes that the appliance's annual leak rate does not exceed the applicable allowable annual leak rate, in accordance with paragraph (i)(4) of this section. If the appliance's owner or operator establishes that the appliance's annual leak rate does not exceed the applicable allowable annual leak rate, the owner or operator is required to notify EPA within 30 days of that determination in accordance with § 82.166(n) and the owner or operator would no longer be subject to the obligation to retrofit or replace the equipment that arose as a consequence of the initial failure to verify that the leak repair efforts were successful.

(4) In the case of a failed follow-up verification test subject to paragraph (i)(3)(v) of this section, the determination of whether industrial process refrigeration equipment has an annual leak rate that exceeds the applicable allowable annual leak rate will be made in accordance with parameters identified by the owner or operator in its notice to EPA regarding the failure of the initial follow-up verification test, if those parameters are acceptable to EPA; otherwise by parameters selected by EPA. The determination must be based on the full charge for the affected industrial process refrigeration equipment. The leak rate determination parameters in the owner's or operator's notice will be considered acceptable unless EPA notifies the owners or operators within 30 days of receipt of the notice. Where EPA does not accept the parameters identified by the owner or operator in its notice, EPA will not provide additional time beyond the additional time permitted in paragraph (i)(3)(v) of this section unless specifically stated in the parameters selected by EPA.

(5) Owners or operators of comfort cooling appliances normally containing more than 50 pounds of refrigerant and not covered by paragraph (i)(1) or (i)(2) of this section must have leaks repaired in accordance with paragraph (i)(9) of this section if the appliance is leaking at a rate such that the loss of

refrigerant will exceed 15 percent of the total charge during a 12-month period, except as described in paragraphs (i)(6), (i)(8) and (i)(10) of this section and paragraphs (i)(5)(i), (i)(5)(ii) and (i)(5)(iii) of this section. Repairs must bring the annual leak rate to below 15 percent.

(i) If the owners or operators of federally-owned comfort-cooling appliances determine that the leaks cannot be repaired in accordance with paragraph (i)(9) of this section and that an extension in accordance with the requirements discussed in paragraph (i)(5) of this section apply, they must document all repair efforts, and notify EPA of their inability to comply within the 30-day repair requirement, and the reason for the inability must be submitted to EPA in accordance with §82.166(n). Such notification must be made within 30 days of discovering that leak repair efforts cannot be completed within 30 days.

(ii) Owners or operators of federally-owned comfort-cooling appliances may have more than 30 days to repair leaks where the refrigeration appliance is located in an area subject to radiological contamination or where the shutting down of the appliance will directly lead to radiological contamination. Only the additional time needed to conduct and complete work in a safe environment will be permitted.

(iii) Owners or operators of federally-owned comfort-cooling appliances requesting, or who are granted, time extensions under this paragraph must comply with paragraphs (i)(3) and (i)(4) of this section.

(6) Owners or operators are not required to repair leaks as provided in paragraphs (i)(1), (i)(2), and (i)(5) of this section if, within 30 days of discovering a leak greater than the applicable allowable leak rate, or within 30 days of a failed follow-up verification test, or after making good faith efforts to repair the leaks as described in paragraph (i)(6)(i) of this section, they develop a one-year retrofit or retirement plan for the leaking appliance. Owners or operators who decide to retrofit the appliance must use a refrigerant or substitute with a lower or equivalent ozone-depleting potential than the previous refrigerant and must include such a change in the retrofit plan. Owners or operators who retire and replace the appliance must replace the appliance with an appliance that uses a refrigerant or substitute with a lower or equivalent ozone-depleting potential and must include such a change in the retirement plan. The retrofit or retirement plan (or a legible copy) must be kept at the site of the appliance. The original plan must be made available for EPA inspection upon request. The plan must be dated, and all work performed in accordance with the plan must be completed within one year of the plan's date, except as described in paragraphs (i)(6)(i), (i)(7), and (i)(8) of this section. Owners or operators are temporarily relieved of this obligation if the appliance has undergone system mothballing as defined in §82.152.

(i) If the owner or operator has made good faith efforts to repair leaks from the appliance in accordance with paragraphs (i)(1), (i)(2), or (i)(5) of this section and has decided prior to completing a follow-up verification test, to retrofit or retire the appliance in accordance with paragraph (i)(6) of this section, the owner or operator must develop a retrofit or retirement plan within 30 days of the decision to retrofit or retire the appliance. The owner or operator must complete the retrofit or retirement of the appliance within one year and 30 days of when the owner or operator discovered that the leak rate exceeded the applicable allowable leak rate, except as provided in paragraphs (i)(7) and (i)(8) of this section.

(ii) In all cases, subject to paragraph (i)(6)(i) of this section, the written plan shall be prepared no later than 30 days after the owner or operator has determined to proceed with retrofitting or retiring the appliance. All reports required under §82.166(o) shall be due at the time specified in the paragraph imposing the specific reporting requirement, or no later than 30 days after the decision to retrofit or retire the appliance, whichever is later.

(iii) In cases where the owner or operator of industrial process refrigeration equipment has made good faith efforts to retrofit or retire industrial process refrigeration equipment prior to August 8, 1995, and where these efforts are not complete, the owner or operator

must develop a retrofit or retirement plan that will complete the retrofit or retirement of the affected appliance by August 8, 1996. This plan (or a legible copy) must be kept at the site of the appliance. The original must be made available for EPA inspection upon request. Where the conditions of paragraphs (i)(7) and (i)(8) of this section apply, and where the length of time necessary to complete the work is beyond August 8, 1996, all records must be submitted to EPA in accordance with § 82.166(o), as well as maintained on-site.

(7) The owners or operators of industrial process refrigeration equipment will be allowed additional time to complete the retrofit or retirement of industrial process refrigeration equipment if the conditions described in paragraphs (i)(7)(i) or (i)(7)(ii) of this section are met. The owners or operators of industrial process refrigeration equipment will be allowed additional time beyond the additional time provided in paragraph (i)(7)(ii) of this section if the conditions described in paragraph (i)(7)(iii) of this section are met.

(i) Additional time, to the extent reasonably necessary will be allowed for retrofitting or retiring industrial process refrigeration equipment due to delays occasioned by the requirements of other applicable federal, state, or local laws or regulations, or due to the unavailability of a suitable replacement refrigerant with a lower ozone depletion potential. If these circumstances apply, the owner or operator of the facility must notify EPA within six months after the 30-day period following the discovery of an exceedance of the 35 percent leak rate. Records necessary to allow EPA to determine that these provisions apply and the length of time necessary to complete the work must be submitted to EPA in accordance with § 82.166(o), as well as maintained on-site. EPA will notify the owner or operator of its determination within 60 days of receipt the submittal.

(ii) An additional one-year period beyond the initial one-year retrofit period is allowed for industrial process refrigeration equipment where the following criteria are met:

(A) The new or the retrofitted industrial process refrigerant equipment is custom-built;

(B) The supplier of the appliance or one or more of its critical components has quoted a delivery time of more than 30 weeks from when the order is placed;

(C) The owner or operator notifies EPA within six months of the expiration of the 30-day period following the discovery of an exceedance of the 35 percent leak rate to identify the owner or operator, describe the appliance involved, explain why more than one year is needed, and demonstrate that the first two criteria are met in accordance with § 82.166(o); and

(D) The owner or operator maintains records that are adequate to allow a determination that the criteria are met.

(iii) The owners or operators of industrial process refrigeration equipment may request additional time to complete retrofitting or retiring industrial process refrigeration equipment beyond the additional one-year period if needed and where the initial additional one year was granted in accordance with paragraph (i)(7)(ii) of this section. The request shall be submitted to EPA before the end of the ninth month of the first additional year and shall include revisions of information required under § 82.166(o). Unless EPA objects to this request submitted in accordance with § 82.166(o) within 30 days of receipt, it shall be deemed approved.

(8) Owners or operators of federally-owned commercial or comfort-cooling appliances will be allowed an additional year to complete the retrofit or retirement of the appliances if the conditions described in paragraph (i)(8)(i) of this section are met, and will be allowed one year beyond the additional year if the conditions in paragraph (i)(8)(ii) of this section are met.

(i) Up to one additional one-year period beyond the initial one-year retrofit period is allowed for such equipment where the following criteria are met:

(A) Due to complications presented by the federal agency appropriations and/or procurement process, a delivery time of more than 30 weeks from the beginning of the official procurement

process is quoted, or where the appliance is located in an area subject to radiological contamination and creating a safe working environment will require more than 30 weeks;

(B) The operator notifies EPA within six months of the expiration of the 30-day period following the discovery of an exceedance of the applicable allowable annual leak rate to identify the operator, describe the appliance involved, explain why more than one year is needed, and demonstrate that the first criterion is met in accordance with §82.166(o); and

(C) The operator maintains records adequate to allow a determination that the criteria are met.

(ii) The owners or operators of federally-owned commercial or comfort-cooling appliances may request additional time to complete retrofitting, replacement or retiring such appliances beyond the additional one-year period if needed and where the initial additional one year was granted in accordance with paragraph (i)(8)(i) of this section. The request shall be submitted to EPA before the end of the ninth month of the first additional year and shall include revisions of information earlier submitted as required under §82.166(o). Unless EPA objects to this request submitted in accordance with §82.166(o) within 30 days of receipt, it shall be deemed approved.

(9) Owners or operators must repair leaks pursuant to paragraphs (i)(1), (i)(2) and (i)(5) of this section within 30 days after discovery, or within 30 days after when the leaks should have been discovered if the owners intentionally shielded themselves from information which would have revealed a leak, unless granted additional time pursuant to §82.156(i).

(10) The amount of time for owners and operators to complete repairs, retrofit plans or retrofits/replacements/retirements under paragraphs (i)(1), (i)(2), (i)(5), (i)(6), (i)(7), (i)(8), and (i)(9) of this section is temporarily suspended at the time an appliance is mothballed as defined in §82.152. The time for owners and operators to complete repairs, retrofit plans, or retrofits/replacements will resume on the day the appliance is brought back online and is no longer considered mothballed. All initial and follow-up verification tests must be performed in accordance with paragraphs (i)(3), (i)(3)(i), and (i)(3)(ii) of this section.

(11) In calculating annual leak rates, purged refrigerant that is destroyed at a verifiable destruction efficiency of 98 percent or greater will not be counted toward the leak rate. Owners or operators destroying purged refrigerants must maintain information as set forth in §82.166(p)(1) and submit to EPA, within 60 days after the first time such exclusion is used by that facility, information set forth in §82.166(p)(2).

[58 FR 28712, May 14, 1993, as amended at 59 FR 42956, 42962, Aug. 19, 1994; 59 FR 55926, Nov. 9, 1994; 60 FR 40440, Aug. 8, 1995; 68 FR 43807, July 24, 2003; 69 FR 11979, Mar. 12, 2004; 70 FR 1991, Jan. 11, 2005]

### §82.158 Standards for recycling and recovery equipment.

(a) Effective September 22, 2003, all manufacturers and importers of recycling and recovery equipment intended for use during the maintenance, service, or repair of appliances except MVACs and MVAC-like appliances or during the disposal of appliances except small appliances, MVACs, and MVAC-like appliances, shall have had such equipment certified by an approved equipment testing organization to meet the applicable requirements in paragraph (b)(1), (b)(2), or (d) of this section. All manufacturers and importers of recycling and recovery equipment intended for use during the maintenance, service, or repair of MVAC-like appliances shall have had such equipment certified pursuant to §82.36(a).

(b) Equipment manufactured or imported on or after November 15, 1993 and before September 22, 2003, for use during the maintenance, service, or repair of appliances except small appliances, MVACs, and MVAC-like appliances or during the disposal of appliances except small appliances, MVACs, and MVAC-like appliances must be certified by an approved equipment testing organization to meet the requirements of paragraph (b)(1) of this section and the following requirements below. Equipment manufactured or imported on or after September 22, 2003,

and design (such as containers that are: shop built, skid-mounted, elevated, equipped with a liner, double walled, or partially buried). Examples of these integrity tests include, but are not limited to: visual inspection, hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or other systems of non-destructive testing. You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices satisfy the recordkeeping requirements of this paragraph.

(d) *Professional Engineer Certification of Portions of a Qualified Facility's Self-certified Plan.* As described in paragraph (c) of this section, the facility owner or operator may not self-certify alternative measures allowed under §112.7(a)(2) or (d), that are included in the facility's Plan. Such measures must be reviewed and certified, in writing, by a licensed Professional Engineer as follows:

(1) For each alternative measure allowed under §112.7(a)(2), the Plan must be accompanied by a written statement by a Professional Engineer that states the reason for nonconformance and describes the alternative method and how it provides equivalent environmental protection in accordance with §112.7(a)(2). For each determination of impracticability of secondary containment pursuant to §112.7(d), the Plan must clearly explain why secondary containment measures are not practicable at this facility and provide the alternative measures required in §112.7(d) in lieu of secondary containment.

(2) By certifying each measure allowed under §112.7(a)(2) and (d), the Professional Engineer attests:

(i) That he is familiar with the requirements of this part;

(ii) That he or his agent has visited and examined the facility; and

(iii) That the alternative method of environmental equivalence in accordance with §112.7(a)(2) or the determination of impracticability and alternative measures in accordance with §112.7(d) is consistent with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part.

(3) The review and certification by the Professional Engineer under this paragraph is limited to the alternative method which achieves equivalent environmental protection pursuant to §112.7(a)(2) or to the impracticability determination and measures in lieu of secondary containment pursuant to §112.7(d).

[71 FR 77291, Dec. 26, 2006]

### §112.7 General requirements for Spill Prevention, Control, and Countermeasure Plans.

If you are the owner or operator of a facility subject to this part you must prepare a Plan in accordance with good engineering practices. The Plan must have the full approval of management at a level of authority to commit the necessary resources to fully implement the Plan. You must prepare the Plan in writing. If you do not follow the sequence specified in this section for the Plan, you must prepare an equivalent Plan acceptable to the Regional Administrator that meets all of the applicable requirements listed in this part, and you must supplement it with a section cross-referencing the location of requirements listed in this part and the equivalent requirements in the other prevention plan. If the Plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, you must discuss these items in separate paragraphs, and must explain separately the details of installation and operational start-up. As detailed elsewhere in this section, you must also:

(a)(1) Include a discussion of your facility's conformance with the requirements listed in this part.

(2) Comply with all applicable requirements listed in this part. Except as provided in §112.6, your Plan may deviate from the requirements in paragraphs (g), (h)(2) and (3), and (i) of this section and the requirements in subparts B and C of this part, except the secondary containment requirements in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2), 112.8(c)(11),

112.9(c)(2), 112.10(c), 112.12(c)(2), and 112.12(c)(11), where applicable to a specific facility, if you provide equivalent environmental protection by some other means of spill prevention, control, or countermeasure. Where your Plan does not conform to the applicable requirements in paragraphs (g), (h)(2) and (3), and (i) of this section, or the requirements of subparts B and C of this part, except the secondary containment requirements in paragraph (c) and (h)(1) of this section, and §§ 112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), and 112.12(c)(11), you must state the reasons for nonconformance in your Plan and describe in detail alternate methods and how you will achieve equivalent environmental protection. If the Regional Administrator determines that the measures described in your Plan do not provide equivalent environmental protection, he may require that you amend your Plan, following the procedures in § 112.4(d) and (e).

(3) Describe in your Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each container. The facility diagram must include completely buried tanks that are otherwise exempted from the requirements of this part under § 112.1(d)(4). The facility diagram must also include all transfer stations and connecting pipes. You must also address in your Plan:

(i) The type of oil in each container and its storage capacity;

(ii) Discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, etc.);

(iii) Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge;

(iv) Countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor);

(v) Methods of disposal of recovered materials in accordance with applicable legal requirements; and

(vi) Contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom you have an agreement for response, and all appropriate Federal, State, and local agencies who must be contacted in case of a discharge as described in § 112.1(b).

(4) Unless you have submitted a response plan under § 112.20, provide information and procedures in your Plan to enable a person reporting a discharge as described in § 112.1(b) to relate information on the exact address or location and phone number of the facility; the date and time of the discharge, the type of material discharged; estimates of the total quantity discharged; estimates of the quantity discharged as described in § 112.1(b); the source of the discharge; a description of all affected media; the cause of the discharge; any damages or injuries caused by the discharge; actions being used to stop, remove, and mitigate the effects of the discharge; whether an evacuation may be needed; and, the names of individuals and/or organizations who have also been contacted.

(5) Unless you have submitted a response plan under § 112.20, organize portions of the Plan describing procedures you will use when a discharge occurs in a way that will make them readily usable in an emergency, and include appropriate supporting material as appendices.

(b) Where experience indicates a reasonable potential for equipment failure (such as loading or unloading equipment, tank overflow, rupture, or leakage, or any other equipment known to be a source of a discharge), include in your Plan a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each type of major equipment failure.

(c) Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in § 112.1(b), except as provided in paragraph (k) of this section for qualified oil-filled operational equipment. The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup

occurs. At a minimum, you must use one of the following prevention systems or its equivalent:

(1) For onshore facilities:

(i) Dikes, berms, or retaining walls sufficiently impervious to contain oil;

(ii) Curbing;

(iii) Culverting, gutters, or other drainage systems;

(iv) Weirs, booms, or other barriers;

(v) Spill diversion ponds;

(vi) Retention ponds; or

(vii) Sorbent materials.

(2) For offshore facilities:

(i) Curbing or drip pans; or

(ii) Sumps and collection systems.

(d) Provided your Plan is certified by a licensed Professional Engineer under §112.3(d), or, in the case of a qualified facility that meets the criteria in §112.3(g), the relevant sections of your Plan are certified by a licensed Professional Engineer under §112.6(d), if you determine that the installation of any of the structures or pieces of equipment listed in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), and 112.12(c)(11) to prevent a discharge as described in §112.1(b) from any onshore or offshore facility is not practicable, you must clearly explain in your Plan why such measures are not practicable; for bulk storage containers, conduct both periodic integrity testing of the containers and periodic integrity and leak testing of the valves and piping; and, unless you have submitted a response plan under §112.20, provide in your Plan the following:

(1) An oil spill contingency plan following the provisions of part 109 of this chapter.

(2) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

(e) *Inspections, tests, and records.* Conduct inspections and tests required by this part in accordance with written procedures that you or the certifying engineer develop for the facility. You must keep these written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan for a period of three years. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.

(f) *Personnel, training, and discharge prevention procedures.* (1) At a minimum, train your oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan.

(2) Designate a person at each applicable facility who is accountable for discharge prevention and who reports to facility management.

(3) Schedule and conduct discharge prevention briefings for your oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. Such briefings must highlight and describe known discharges as described in §112.1(b) or failures, malfunctioning components, and any recently developed precautionary measures.

(g) *Security (excluding oil production facilities).* (1) Fully fence each facility handling, processing, or storing oil, and lock and/or guard entrance gates when the facility is not in production or is unattended.

(2) Ensure that the master flow and drain valves and any other valves permitting direct outward flow of the container's contents to the surface have adequate security measures so that they remain in the closed position when in non-operating or non-standby status.

(3) Lock the starter control on each oil pump in the ''off'' position and locate it at a site accessible only to authorized personnel when the pump is in a non-operating or non-standby status.

(4) Securely cap or blank-flange the loading/unloading connections of oil pipelines or facility piping when not in service or when in standby service for an extended time. This security practice also applies to piping that is emptied of liquid content either by draining or by inert gas pressure.

(5) Provide facility lighting commensurate with the type and location of the facility that will assist in the:

(i) Discovery of discharges occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (the general public, local police, etc.); and

(ii) Prevention of discharges occurring through acts of vandalism.

(h) *Facility tank car and tank truck loading/unloading rack (excluding offshore facilities).* (1) Where loading/unloading area drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank car or tank truck loading and unloading areas. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.

(2) Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks, or vehicle break interlock system in loading/unloading areas to prevent vehicles from departing before complete disconnection of flexible or fixed oil transfer lines.

(3) Prior to filling and departure of any tank car or tank truck, closely inspect for discharges the lowermost drain and all outlets of such vehicles, and if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge while in transit.

(i) If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or a change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, or has discharged oil or failed due to brittle fracture failure or other catastrophe, evaluate the container for risk of discharge or failure due to brittle fracture or other catastrophe, and as necessary, take appropriate action.

(j) In addition to the minimal prevention standards listed under this section, include in your Plan a complete discussion of conformance with the applicable requirements and other effective discharge prevention and containment procedures listed in this part or any applicable more stringent State rules, regulations, and guidelines.

(k) *Qualified Oil-filled Operational Equipment.* The owner or operator of a facility with oil-filled operational equipment that meets the qualification criteria in paragraph (k)(1) of this subsection may choose to implement for this qualified oil-filled operational equipment the alternate requirements as described in paragraph (k)(2) of this sub-section in lieu of general secondary containment required in paragraph (c) of this section.

(1) *Qualification Criteria—Reportable Discharge History:* The owner or operator of a facility that has had no single discharge as described in § 112.1(b) from any oil-filled operational equipment exceeding 1,000 U.S. gallons or no two discharges as described in § 112.1(b) from any oil-filled operational equipment each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan certification date, or since becoming subject to this part if the facility has been in operation for less than three years (other than oil discharges as described in § 112.1(b) that are the result of natural disasters, acts of war or terrorism); and

(2) *Alternative Requirements to General Secondary Containment.* If secondary containment is not provided for qualified oil-filled operational equipment pursuant to paragraph (c) of this section, the owner or operator of a facility with qualified oil-filled operational equipment must:

(i) Establish and document the facility procedures for inspections or a monitoring program to detect equipment failure and/or a discharge; and

(ii) Unless you have submitted a response plan under § 112.20, provide in your Plan the following:

(A) An oil spill contingency plan following the provisions of part 109 of this chapter.

(B) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

[67 FR 47140, July 17, 2002, as amended at 71 FR 77292, Dec. 26, 2006]

## Subpart B—Requirements for Petroleum Oils and Non-Petroleum Oils, Except Animal Fats and Oils and Greases, and Fish and Marine Mammal Oils; and Vegetable Oils (Including Oils from Seeds, Nuts, Fruits, and Kernels)

SOURCE: 67 FR 47146, July 17, 2002, unless otherwise noted.

### § 112.8 Spill Prevention, Control, and Countermeasure Plan requirements for onshore facilities (excluding production facilities).

If you are the owner or operator of an onshore facility (excluding a production facility), you must:

(a) Meet the general requirements for the Plan listed under § 112.7, and the specific discharge prevention and containment procedures listed in this section.

(b) *Facility drainage.* (1) Restrain drainage from diked storage areas by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting, to ensure no oil will be discharged.

(2) Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained stormwater, as provided in paragraphs (c)(3)(ii), (iii), and (iv) of this section.

(3) Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.

(4) If facility drainage is not engineered as in paragraph (b)(3) of this section, equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge, retain oil in the facility.

(5) Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two ''lift'' pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge as described in § 112.1(b) in case there is an equipment failure or human error at the facility.

(c) *Bulk storage containers.* (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.

(2) Construct all bulk storage tank installations (except mobile refuelers) so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.

(3) Not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open watercourse, lake, or pond, bypassing the facility treatment system unless you:

(i) Normally keep the bypass valve sealed closed.

(ii) Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in § 112.1(b).

(iii) Open the bypass valve and reseal it following drainage under responsible supervision; and

(iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with §§122.41(j)(2) and 122.41(m)(3) of this chapter.

(4) Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.

(5) Not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.

(6) Test each aboveground container for integrity on a regular schedule, and whenever you make material repairs. The frequency of and type of testing must take into account container size and design (such as floating roof, skid-mounted, elevated, or partially buried). You must combine visual inspection with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or another system of non-destructive shell testing. You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.

(7) Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.

(8) Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices:

(i) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities an audible air vent may suffice.

(ii) High liquid level pump cutoff devices set to stop flow at a predetermined container content level.

(iii) Direct audible or code signal communication between the container gauger and the pumping station.

(iv) A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers.

(v) You must regularly test liquid level sensing devices to ensure proper operation.

(9) Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in §112.1(b).

(10) Promptly correct visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts. You must promptly remove any accumulations of oil in diked areas.

(11) Position or locate mobile or portable oil storage containers to prevent a discharge as described in §112.1(b). Except for mobile refuelers, you must furnish a secondary means of containment, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.

(d) *Facility transfer operations, pumping, and facility process.* (1) Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in part 280 of this chapter or a State program approved under part 281 of this chapter. If a section of buried line is exposed for any reason, you must carefully inspect it for deterioration. If you find corrosion damage,

you must undertake additional examination and corrective action as indicated by the magnitude of the damage.

(2) Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.

(3) Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.

(4) Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.

(5) Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.

[67 FR 47146, July 17, 2002, as amended at 71 FR 77293, Dec. 26, 2006]

### § 112.9 Spill Prevention, Control, and Countermeasure Plan requirements for onshore oil production facilities.

If you are the owner or operator of an onshore production facility, you must:

(a) Meet the general requirements for the Plan listed under § 112.7, and the specific discharge prevention and containment procedures listed under this section.

(b) *Oil production facility drainage.* (1) At tank batteries and separation and treating areas where there is a reasonable possibility of a discharge as described in § 112.1(b), close and seal at all times drains of dikes or drains of equivalent measures required under § 112.7(c)(1), except when draining uncontaminated rainwater. Prior to drainage, you must inspect the diked area and take action as provided in § 112.8(c)(3)(ii), (iii), and (iv). You must remove accumulated oil on the rainwater and return it to storage or dispose of it in accordance with legally approved methods.

(2) Inspect at regularly scheduled intervals field drainage systems (such as drainage ditches or road ditches), and oil traps, sumps, or skimmers, for an accumulation of oil that may have resulted from any small discharge. You must promptly remove any accumulations of oil.

(c) *Oil production facility bulk storage containers.* (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(2) Provide all tank battery, separation, and treating facility installations with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must safely confine drainage from undiked areas in a catchment basin or holding pond.

(3) Periodically and upon a regular schedule visually inspect each container of oil for deterioration and maintenance needs, including the foundation and support of each container that is on or above the surface of the ground.

(4) Engineer or update new and old tank battery installations in accordance with good engineering practice to prevent discharges. You must provide at least one of the following:

(i) Container capacity adequate to assure that a container will not overfill if a pumper/gauger is delayed in making regularly scheduled rounds.

(ii) Overflow equalizing lines between containers so that a full container can overflow to an adjacent container.

(iii) Vacuum protection adequate to prevent container collapse during a pipeline run or other transfer of oil from the container.

(iv) High level sensors to generate and transmit an alarm signal to the computer where the facility is subject to a computer production control system.

(d) *Facility transfer operations, oil production facility.* (1) Periodically and upon a regular schedule inspect all aboveground valves and piping associated with transfer operations for the general condition of flange joints, valve glands and bodies, drip pans, pipe supports, pumping well polish rod stuffing boxes, bleeder and gauge valves, and other such items.

containing ampules that have been removed from these temperature control devices in compliance with the requirements of 40 CFR 273.13(c)(2) or 273.33(c)(2).

*Universal Waste* means any of the following hazardous wastes that are subject to the universal waste requirements of this part 273:

(1) Batteries as described in § 273.2;

(2) Pesticides as described in § 273.3;

(3) Mercury-containing equipment as described in § 273.4; and

(4) Lamps as described in § 273.5.

*Universal Waste Handler:*

(a) Means:

(1) A generator (as defined in this section) of universal waste; or

(2) The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

(b) Does not mean:

(1) A person who treats (except under the provisions of 40 CFR 273.13 (a) or (c), or 273.33 (a) or (c)), disposes of, or recycles universal waste; or

(2) A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

*Universal Waste Transfer Facility* means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of universal waste are held during the normal course of transportation for ten days or less.

*Universal Waste Transporter* means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

[60 FR 25542, May 11, 1995, as amended at 63 FR 71230, Dec. 24, 1998. Redesignated and amended at 64 FR 36488, 36489, July 6, 1999; 70 FR 45521, Aug. 5, 2005; 71 FR 40280, July 14, 2006]

## Subpart B—Standards for Small Quantity Handlers of Universal Waste

### § 273.10 Applicability.

This subpart applies to small quantity handlers of universal waste (as defined in 40 CFR 273.9).

[64 FR 36489, July 6, 1999]

### § 273.11 Prohibitions.

A small quantity handler of universal waste is:

(a) Prohibited from disposing of universal waste; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in 40 CFR 273.17; or by managing specific wastes as provided in 40 CFR 273.13.

### § 273.12 Notification.

A small quantity handler of universal waste is not required to notify EPA of universal waste handling activities.

### § 273.13 Waste management.

(a) *Universal waste batteries.* A small quantity handler of universal waste must manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but must be immediately closed after removal):

(i) Sorting batteries by type;

(ii) Mixing battery types in one container;

(iii) Discharging batteries so as to remove the electric charge;

(iv) Regenerating used batteries;

(v) Disassembling batteries or battery packs into individual batteries or cells;

(vi) Removing batteries from consumer products; or

(vii) Removing electrolyte from batteries.

(3) A small quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste (e.g., battery pack materials, discarded consumer products) as a result of the activities listed above, must determine whether the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste identified in 40 CFR part 261, subpart C.

(i) If the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste, it is subject to all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the hazardous electrolyte and/or other waste and is subject to 40 CFR part 262.

(ii) If the electrolyte or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(b) *Universal waste pesticides*. A small quantity handler of universal waste must manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides must be contained in one or more of the following:

(1) A container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or

(2) A container that does not meet the requirements of paragraph (b)(1) of this Section, provided that the unacceptable container is overpacked in a container that does meet the requirements of paragraph (b)(1) of this Section; or

(3) A tank that meets the requirements of 40 CFR part 265 subpart J, except for 40 CFR 265.197(c), 265.200, and 265.201; or

(4) A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(c) *Mercury-containing equipment*. A small quantity handler of universal waste must manage universal waste mercury-containing equipment in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste must place in a container any universal waste mercury-containing equipment with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container must be closed, structurally sound, compatible with the contents of the device, must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and must be reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

(2) A small quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing equipment provided the handler:

(i) Removes and manages the ampules in a manner designed to prevent breakage of the ampules;

(ii) Removes the ampules only over or in a containment device (*e.g.*, tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage);

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules from that containment device to a container that meets the requirements of 40 CFR 262.34;

(iv) Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of 40 CFR 262.34;

(v) Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(vi) Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

(vii) Stores removed ampules in closed, non-leaking containers that are in good condition;

(viii) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation;

(3) A small quantity handler of universal waste mercury-containing equipment that does not contain an ampule may remove the open original housing holding the mercury from universal waste mercury-containing equipment provided the handler:

(i) Immediately seals the original housing holding the mercury with an air-tight seal to prevent the release of any mercury to the environment; and

(ii) Follows all requirements for removing ampules and managing removed ampules under paragraph (c)(2) of this section; and

(4) (i) A small quantity handler of universal waste who removes mercury-containing ampules from mercury-containing equipment or seals mercury from mercury-containing equipment in its original housing must determine whether the following exhibit a characteristic of hazardous waste identified in 40 CFR part 261, subpart C:

(A) Mercury or clean-up residues resulting from spills or leaks and/or

(B) Other solid waste generated as a result of the removal of mercury-containing ampules or housings (*e.g.*, the remaining mercury-containing device).

(ii) If the mercury, residues, and/or other solid waste exhibits a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the mercury, residues, and/or other waste and must manage it in compliance with 40 CFR part 262.

(iii) If the mercury, residues, and/or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(d) *Lamps*. A small quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

[60 FR 25542, May 11, 1995, as amended at 64 FR 36489, July 6, 1999; 70 FR 45521, Aug. 5, 2005; 71 FR 40280, July 14, 2006]

**§ 273.14 Labeling/marking.**

A small quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

(a) Universal waste batteries (i.e., each battery), or a container in which the batteries are contained, must be labeled or marked clearly with any one of the following phrases: ''Universal Waste—Battery(ies),'' or ''Waste Battery(ies),'' or ''Used Battery(ies);''

(b) A container, (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides as described in

40 CFR 273.3(a)(1) are contained must be labeled or marked clearly with:

(1) The label that was on or accompanied the product as sold or distributed; and

(2) The words ''Universal Waste-Pesticide(s)'' or ''Waste-Pesticide(s);''

(c) A container, tank, or transport vehicle or vessel in which unused pesticide products as described in 40 CFR 273.3(a)(2) are contained must be labeled or marked clearly with:

(1)(i) The label that was on the product when purchased, if still legible;

(ii) If using the labels described in paragraph (c)(1)(i) of this section is not feasible, the appropriate label as required under the Department of Transportation regulation 49 CFR part 172;

(iii) If using the labels described in paragraphs (c)(1) (i) and (ii) of this section is not feasible, another label prescribed or designated by the waste pesticide collection program administered or recognized by a state; and

(2) The words ''Universal Waste-Pesticide(s)'' or ''Waste-Pesticide(s).''

(d)(1) Universal waste mercury-containing equipment (*i.e.*, each device), or a container in which the equipment is contained, must be labeled or marked clearly with any of the following phrases: ''Universal Waste—Mercury Containing Equipment,'' ''Waste Mercury-Containing Equipment,'' or ''Used Mercury-Containing Equipment.''

(2) A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostats may be labeled or marked clearly with any of the following phrases: ''Universal Waste—Mercury Thermostat(s),'' ''Waste Mercury Thermostat(s),'' or ''Used Mercury Thermostat(s).''

(e) Each lamp or a container or package in which such lamps are contained must be labeled or marked clearly with one of the following phrases: ''Universal Waste—Lamp(s),'' or ''Waste Lamp(s),'' or ''Used Lamp(s)''.

[60 FR 25542, May 11, 1995, as amended at 64 FR 36489, July 6, 1999; 70 FR 45521, Aug. 5, 2005; 71 FR 40280, July 14, 2006]

**§ 273.15 Accumulation time limits.**

(a) A small quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of paragraph (b) of this section are met.

(b) A small quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(c) A small quantity handler of universal waste who accumulates universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

(1) Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;

(2) Marking or labeling each individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;

(3) Maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received;

(4) Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;

(5) Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or

(6) Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

| Subsector or industry code | Exceptions and/or limitations |
|---|---|
| 212111 | |
| 212112 | |
| 212113 | |
| 212221 | |
| 212222 | |
| 212231 | |
| 212234 | |
| 212299 | |
| 221111 | Limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce. |
| 221112 | Limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce. |
| 221113 | Limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce. |
| 221119 | Limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce. |
| 221121 | Limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce. |
| 221122 | Limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce. |
| 424690 | |
| 424710 | |
| 425110 | Limited to facilities previously classified in SIC 5169, Chemicals and Allied Products, Not Elsewhere Classified. |
| 425120 | Limited to facilities previously classified in SIC 5169, Chemicals and Allied Products, Not Elsewhere Classified. |
| 562112 | Limited to facilities primarily engaged in solvent recovery services on a contract or fee basis (previously classified under SIC 7389, Business Services, NEC); |
| 562211 | Limited to facilities regulated under the Resource Conservation and Recovery Act, subtitle C, 42 U.S.C. 6921 *et seq.* |
| 562212 | Limited to facilities regulated under the Resource Conservation and Recovery Act, subtitle C, 42 U.S.C. 6921 *et seq.* |
| 562213 | Limited to facilities regulated under the Resource Conservation and Recovery Act, subtitle C, 42 U.S.C. 6921 *et seq.* |
| 562219 | Limited to facilities regulated under the Resource Conservation and Recovery Act, subtitle C, 42 U.S.C. 6921 *et seq.* |
| 562920 | Limited to facilities regulated under the Resource Conservation and Recovery Act, subtitle C, 42 U.S.C. 6921 *et seq.* |

[71 FR 32474, June 6, 2006]

### § 372.25 Thresholds for reporting.

Except as provided in §§ 372.27 and 372.28, the threshold amounts for purposes of reporting under § 372.30 for toxic chemicals are as follows:

(a) With respect to a toxic chemical manufactured (including imported) or processed at a facility during the following calendar years:

1987—75,000 pounds of the chemical manufactured or processed for the year.
1988—50,000 pounds of the chemical manufactured or processed for the year.
1989 and thereafter—25,000 pounds of the chemical manufactured or processed for the year.

(b) With respect to a chemical otherwise used at a facility, 10,000 pounds of the chemical used for the applicable calendar year.

(c) With respect to activities involving a toxic chemical at a facility, when more than one threshold applies to the activities, the owner or operator of the facility must report if it exceeds any applicable threshold and must report on all activities at the facility involving the chemical, except as provided in § 372.38.

(d) When a facility manufactures, processes, or otherwise uses more than one member of a chemical category listed in § 372.65(c), the owner or operator of the facility must report if it exceeds any applicable threshold for the total volume of all the members of the category involved in the applicable activity. Any such report must cover all activities at the facility involving members of the category.

(e) A facility may process or otherwise use a toxic chemical in a recycle/reuse operation. To determine whether the facility has processed or used more than an applicable threshold of the chemical, the owner or operator of the facility shall count the amount of the

chemical added to the recycle/reuse operation during the calendar year. In particular, if the facility starts up such an operation during a calendar year, or in the event that the contents of the whole recycle/reuse operation are replaced in a calendar year, the owner or operator of the facility shall also count the amount of the chemical placed into the system at these times.

(f) A toxic chemical may be listed in § 372.65 with the notation that only persons who manufacture the chemical, or manufacture it by a certain method, are required to report. In that case, only owners or operators of facilities that manufacture that chemical as described in § 372.65 in excess of the threshold applicable to such manufacture in § 372.25, § 372.27, or § 372.28 are required to report. In completing the reporting form, the owner or operator is only required to account for the quantity of the chemical so manufactured and releases associated with such manufacturing, but not releases associated with subsequent processing or use of the chemical at that facility. Owners and operators of facilities that solely process or use such a chemical are not required to report for that chemical.

(g) A toxic chemical may be listed in § 372.65 with the notation that it is in a specific form (e.g., fume or dust, solution, or friable) or of a specific color (e.g., yellow or white). In that case, only owners or operators of facilities that manufacture, process, or use that chemical in the form or of the color, specified in § 372.65 in excess of the threshold applicable to such activity in § 372.25, § 372.27, or § 372.28 are required to report. In completing the reporting form, the owner or operator is only required to account for the quantity of the chemical manufactured, processed, or used in the form or color specified in § 372.65 and for releases associated with the chemical in that form or color. Owners or operators of facilities that solely manufacture, process, or use such a chemical in a form or color other than those specified by § 372.65 are not required to report for that chemical.

(h) Metal compound categories are listed in § 372.65(c). For purposes of determining whether any of the thresholds specified in § 372.25, § 372.27, or § 372.28 are met for metal compound category, the owner or operator of a facility must make the threshold determination based on the total amount of all members of the metal compound category manufactured, processed, or used at the facility. In completing the release portion of the reporting form for releases of the metal compounds, the owner or operator is only required to account for the weight of the parent metal released. Any contribution to the mass of the release attributable to other portions of each compound in the category is excluded.

[53 FR 4525, Feb. 16, 1988, as amended at 59 FR 61502, Nov. 30, 1994; 64 FR 58750, Oct. 29, 1999]

### § 372.27 Alternate thresholds and certifications.

(a) Except as provided in paragraph (e) of this section:

(1) *General.* With respect to the manufacture, process, or otherwise use of a toxic chemical, the owner or operator of a facility may apply an alternate threshold of 1 million pounds per year to that chemical if the owner or operator calculates that the facility would have:

(i) No more than 2,000 pounds of total on-site and off-site disposal or other releases (including disposal or other releases that resulted from catastrophic events); and

(ii) An annual reportable amount of that toxic chemical not exceeding 5,000 pounds for the combined total quantities released at the facility; disposed within the facility; treated for destruction at the facility; recovered at the facility as a result of recycling operations; combusted for the purpose of energy recovery at the facility; transferred from the facility to off-site locations for the purpose of recycling, energy recovery, treatment, and/or disposal; and managed as a result of remedial actions, catastrophic events, or one-time events not associated with production processes during the reporting year. These volumes correspond to the sum of amounts reportable for data elements on EPA Form R (EPA Form 9350–1; Rev. 01/2006) as Part II column B or sections 8.1 (total quantity released), 8.2 (quantity used for energy recovery on-site), 8.3 (quantity used for

**§372.30 Reporting requirements and schedule for reporting.**

(a) For each toxic chemical known by the owner or operator to be manufactured (including imported), processed, or otherwise used in excess of an applicable threshold quantity in §372.25, §372.27, or §372.28 at its covered facility described in §372.22 for a calendar year, the owner or operator must submit to EPA and to the State in which the facility is located a completed EPA Form R (EPA Form 9350–1) in accordance with the instructions referred to in subpart E of this part.

(b)(1) The owner or operator of a covered facility is required to report as described in paragraph (a) of this section on a toxic chemical that the owner or operator knows is present as a component of a mixture or trade name product which the owner or operator receives from another person, if that chemical is imported, processed, or otherwise used by the owner or operator in excess of an applicable threshold quantity in §372.25, §372.27, or §372.28 at the facility as part of that mixture or trade name product.

(2) The owner or operator knows that a toxic chemical is present as a component of a mixture or trade name product (i) if the owner or operator knows or has been told the chemical identity or Chemical Abstracts Service Registry Number of the chemical and the identity or Number corresponds to an identity or Number in §372.65, or (ii) if the owner or operator has been told by the supplier of the mixture or trade name product that the mixture or trade name product contains a toxic chemical subject to section 313 of the Act or this part.

(3) To determine whether a toxic chemical which is a component of a mixture or trade name product has been imported, processed, or otherwise used in excess of an applicable threshold in §372.25, §372.27, or §372.28 at the facility, the owner or operator shall consider only the portion of the mixture or trade name product that consists of the toxic chemical and that is imported, processed, or otherwise used at the facility, together with any other amounts of the same toxic chemical that the owner or operator manufactures, imports, processes, or otherwise uses at the facility as follows:

(i) If the owner or operator knows the specific chemical identity of the toxic chemical and the specific concentration at which it is present in the mixture or trade name product, the owner or operator shall determine the weight of the chemical imported, processed, or otherwise used as part of the mixture or trade name product at the facility and shall combine that with the weight of the toxic chemical manufactured (including imported), processed, or otherwise used at the facility other than as part of the mixture or trade name product. After combining these amounts, if the owner or operator determines that the toxic chemical was manufactured, processed, or otherwise used in excess of an applicable threshold in §372.25, §372.27, or §372.28, the owner or operator shall report the specific chemical identity and all releases of the toxic chemical on EPA Form R in accordance with the instructions referred to in subpart E of this part.

(ii) If the owner or operator knows the specific chemical identity of the toxic chemical and does not know the specific concentration at which the chemical is present in the mixture or trade name product, but has been told the upper bound concentration of the chemical in the mixture or trade name product, the owner or operator shall assume that the toxic chemical is present in the mixture or trade name product at the upper bound concentration, shall determine whether the chemical has been manufactured, processed, or otherwise used at the facility in excess of an applicable threshold as provided in paragraph (b)(3)(i) of this section, and shall report as provided in paragraph (b)(3)(i) of this section.

(iii) If the owner or operator knows the specific chemical identity of the toxic chemical, does not know the specific concentration at which the chemical is present in the mixture or trade name product, has not been told the upper bound concentration of the chemical in the mixture or trade name product, and has not otherwise developed information on the composition of the chemical in the mixture or trade name product, then the owner or operator is not required to factor that

chemical in that mixture or trade name product into threshold and release calculations for that chemical.

(iv) If the owner or operator has been told that a mixture or trade name product contains a toxic chemical, does not know the specific chemical identity of the chemical and knows the specific concentration at which it is present in the mixture or trade name product, the owner or operator shall determine the weight of the chemical imported, processed, or otherwise used as part of the mixture or trade name product at the facility. Since the owner or operator does not know the specific identity of the toxic chemical, the owner or operator shall make the threshold determination only for the weight of the toxic chemical in the mixture or trade name product. If the owner or operator determines that the toxic chemical was imported, processed, or otherwise used as part of the mixture or trade name product in excess of an applicable threshold in § 372.25, § 372.27, or § 372.28, the owner or operator shall report the generic chemical name of the toxic chemical, or a trade name if the generic chemical name is not known, and all releases of the toxic chemical on EPA Form R in accordance with the instructions referred to in subpart E of this part.

(v) If the owner or operator has been told that a mixture or trade name product contains a toxic chemical, does not know the specific chemical identity of the chemical, and does not know the specific concentration at which the chemical is present in the mixture or trade name product, but has been told the upper bound concentration of the chemical in the mixture or trade name product, the owner or operator shall assume that the toxic chemical is present in the mixture or trade name product at the upper bound concentration, shall determine whether the chemical has been imported, processed, or otherwise used at the facility in excess of an applicable threshold as provided in paragraph (b)(3)(iv) of this section, and shall report as provided in paragraph (b)(3)(iv) of this section.

(vi) If the owner or operator has been told that a mixture or trade name product contains a toxic chemical, does not know the specific chemical identity of the chemical, does not know the specific concentration at which the chemical is present in the mixture or trade name product, including information they have themselves developed, and has not been told the upper bound concentration of the chemical in the mixture or trade name product, the owner or operator is not required to report with respect to that toxic chemical.

(c) A covered facility may consist of more than one establishment. The owner or operator of such a facility at which a toxic chemical was manufactured (including imported), processed, or otherwise used in excess of an applicable threshold may submit a separate Form R for each establishment or for each group of establishments within the facility to report the activities involving the toxic chemical at each establishment or group of establishments, provided that activities involving that toxic chemical at all the establishments within the covered facility are reported. If each establishment or group of establishments files separate reports then for all other chemicals subject to reporting at that facility they must also submit separate reports. However, an establishment or group of establishments does not have to submit a report for a chemical that is not manufactured (including imported), processed, otherwise used, or released at that establishment or group of establishments.

(d) Each report under this section for activities involving a toxic chemical that occurred during a calendar year at a covered facility must be submitted on or before July 1 of the next year. The first such report for calendar year 1987 activities must be submitted on or before July 1, 1988.

[53 FR 4525, Feb. 16, 1988; 53 FR 12748, Apr. 18, 1988, as amended at 56 FR 29185, June 26, 1991; 64 FR 58751, Oct. 29, 1999]

EFFECTIVE DATE NOTE: At 72 FR 26553, May 10, 2007, § 372.30 was amended by revising paragraph (a), effective July 9, 2007. For the convenience of the user, the revised text is set forth as follows:

**§ 372.30 Reporting requirements and schedule for reporting.**

(a) For each toxic chemical known by the owner or operator to be manufactured (including imported), processed, or otherwise

bis(dichloroisopropyl) ether, bis-(chloroethoxy) methane and polychlorinated diphenyl ethers)
38. Halomethanes (other than those listed elsewhere; includes methylene chloride, methylchloride, methylbromide, bromoform, dichlorobromomethane
39. Heptachlor and metabolites
40. Hexachlorobutadiene
41. Hexachlorocyclohexane
42. Hexachlorocyclopentadiene
43. Isophorone
44. Lead and compounds
45. Mercury and compounds
46. Naphthalene
47. Nickel and compounds
48. Nitrobenzene
49. Nitrophenols (including 2,4-dinitrophenol, dinitrocresol)
50. Nitrosamines
51. Pentachlorophenol
52. Phenol
53. Phthalate esters
54. Polychlorinated biphenyls (PCBs)[1]
55. Polynuclear aromatic hydrocarbons (including benzanthracenes, benzopyrenes, benzofluoranthene, chrysenes, dibenzanthracenes, and indenopyrenes)
56. Selenium and compounds
57. Silver and compounds
58. 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)
59. Tetrachloroethylene
60. Thallium and compounds
61. Toluene
62. Toxaphene[1]
63. Trichloroethylene
64. Vinyl chloride
65. Zinc and compounds

[44 FR 44502, July 30, 1979, as amended at 46 FR 2266, Jan. 8, 1981; 46 FR 10724, Feb. 4, 1981]

### § 401.16 Conventional pollutants.

The following comprise the list of conventional pollutants designated pursuant to section 304(a)(4) of the Act:

1. Biochemical oxygen demand (BOD)
2. Total suspended solids (nonfilterable) (TSS)
3. pH
4. Fecal coliform
5. Oil and grease

[44 FR 44503, July 30, 1979; 44 FR 52685, Sept. 10, 1979]

### § 401.17 pH Effluent limitations under continuous monitoring.

(a) Where a permittee continuously measures the pH of wastewater pursuant to a requirement or option in a National Pollutant Discharge Elimination System (NPDES) permit issued pursuant to section 402 of the Act, the permittee shall maintain the pH of such wastewater within the range set forth in the applicable effluent limitations guidelines, except excursions from the range are permitted subject to the following limitations:

(1) The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and

(2) No individual excursion from the range of pH values shall exceed 60 minutes.

(b) The Director, as defined in § 122.3 of this chapter, may adjust the requirements set forth in paragraph (a) of this section with respect to the length of individual excursions from the range of pH values, if a different period of time is appropriate based upon the treatment system, plant configuration or other technical factors.

(c) For purposes of this section, an *excursion* is an unintentional and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the applicable effluent limitations guidelines.

(Secs. 301, 304, 306 and 501 of the Clean Water Act (the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1251 et. seq., as amended by the Clean Water Act of 1977, Pub. L. 95–217))

[47 FR 24537, June 4, 1982]

## PART 402 [RESERVED]

## PART 403—GENERAL PRETREATMENT REGULATIONS FOR EXISTING AND NEW SOURCES OF POLLUTION

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APPENDIX F TO PART 403 [RESERVED]
APPENDIX G TO PART 403—POLLUTANTS ELIGIBLE FOR A REMOVAL CREDIT

AUTHORITY: 33 U.S.C. 1251 *et seq.*

SOURCE: 46 FR 9439, Jan. 28, 1981, unless otherwise noted.

### § 403.1 Purpose and applicability.

(a) This part implements sections 204(b)(1)(C), 208(b)(2) (C)(iii), 301(b)(1)(A)(ii), 301(b)(2) (A)(ii), 301(h)(5) and 301(i)(2), 304 (e) and (g), 307, 308, 309, 402(b), 405, and 501(a) of the Federal Water Pollution Control Act as amended by the Clean Water Act of 1977 (Pub. L. 95–217) or ''The Act''. It establishes responsibilities of Federal, State, and local government, industry and the public to implement National Pretreatment Standards to control pollutants which pass through or interfere with treatment processes in Publicly Owned Treatment Works (POTWs) or which may contaminate sewage sludge.

(b) This regulation applies:

(1) To pollutants from non-domestic sources covered by Pretreatment Standards which are indirectly discharged into or transported by truck or rail or otherwise introduced into POTWs as defined below in § 403.3;

(2) To POTWs which receive wastewater from sources subject to National Pretreatment Standards;

(3) To States which have or are applying for National Pollutant Discharge Elimination System (NPDES) programs approved in accordance with section 402 of the Act; and

(4) To any new or existing source subject to Pretreatment Standards. National Pretreatment Standards do not apply to sources which Discharge to a sewer which is not connected to a POTW Treatment Plant.

[46 FR 9439, Jan. 28, 1981, as amended at 48 FR 2776, Jan. 21, 1983; 60 FR 33932, June 29, 1995]

### § 403.2 Objectives of general pretreatment regulations.

By establishing the responsibilities of government and industry to implement National Pretreatment Standards this regulation fulfills three objectives:

(a) To prevent the introduction of pollutants into POTWs which will interfere with the operation of a POTW, including interference with its use or disposal of municipal sludge;

(b) To prevent the introduction of pollutants into POTWs which will pass through the treatment works or otherwise be incompatible with such works; and

(c) To improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges.

### § 403.3 Definitions.

For the purposes of this part:

(a) Except as discussed below, the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this regulation.

(b) The term *Act* means Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. 1251, *et seq.*

(c) The term *Approval Authority* means the Director in an NPDES State with an approved State pretreatment program and the appropriate Regional Administrator in a non-NPDES State or NPDES State without an approved State pretreatment program.

(d) The term *Approved POTW Pretreatment Program* or *Program* or *POTW Pretreatment Program* means a program administered by a POTW that meets the criteria established in this regulation (§§ 403.8 and 403.9) and which

has been approved by a Regional Administrator or State Director in accordance with § 403.11 of this regulation.

(e) The term *Best Management Practices* or *BMPs* means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in § 403.5(a)(1) and (b). BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

(f) The term *Control Authority* refers to:

(1) The POTW if the POTW's Pretreatment Program Submission has been approved in accordance with the requirements of § 403.11; or

(2) The Approval Authority if the Submission has not been approved.

(g) The term *Director* means the chief administrative officer of a State or Interstate water pollution control agency with an NPDES permit program approved pursuant to section 402(b) of the Act and an approved State pretreatment program.

(h) The term *Water Management Division Director* means one of the Directors of the Water Management Divisions within the Regional offices of the Environmental Protection Agency or this person's delegated representative.

(i) The term *Indirect Discharge* or *Discharge* means the introduction of pollutants into a POTW from any non-domestic source regulated under section 307(b), (c) or (d) of the Act.

(j) The term *Industrial User* or *User* means a source of Indirect Discharge.

(k) The term *Interference* means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

(1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

(2) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

(l) The term *National Pretreatment Standard*, *Pretreatment Standard*, or *Standard* means any regulation containing pollutant discharge limits promulgated by the EPA in accordance with section 307 (b) and (c) of the Act, which applies to Industrial Users. This term includes prohibitive discharge limits established pursuant to § 403.5.

(m)(1) The term *New Source* means any building, structure, facility or installation from which there is or may be a Discharge of pollutants, the construction of which commenced after the publication of proposed Pretreatment Standards under section 307(c) of the Act which will be applicable to such source if such Standards are thereafter promulgated in accordance with that section, *provided that:*

(i) The building, structure, facility or installation is constructed at a site at which no other source is located; or

(ii) The building, structure, facility or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or

(iii) The production or wastewater generating processes of the building, structure, facility or installation are substantially independent of an existing source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source should be considered.

(2) Construction on a site at which an existing source is located results in a modification rather than a New Source if the construction does not create a

new building, structure, facility or installation meeting the criteria of paragraphs (m)(1)(ii) or (m)(1)(iii) of this section, but otherwise alters, replaces, or adds to existing process or production equipment.

(3) Construction of a new source as defined under this paragraph has commenced if the owner or operator has:

(i) Begun, or caused to begin as part of a continuous onsite construction program:

(A) Any placement, assembly, or installation of facilities or equipment; or

(B) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

(ii) Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.

(n) The terms *NPDES Permit* or *Permit* means a permit issued to a POTW pursuant to section 402 of the Act.

(o) The term *NPDES State* means a State (as defined in 40 CFR 122.2) or Interstate water pollution control agency with an NPDES permit program approved pursuant to section 402(b) of the Act.

(p) The term *Pass Through* means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

(q) The term *Publicly Owned Treatment Works* or *POTW* means a treatment works as defined by section 212 of the Act, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in section 502(4) of the Act, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.

(r) The term *POTW Treatment Plant* means that portion of the POTW which is designed to provide treatment (including recycling and reclamation) of municipal sewage and industrial waste.

(s) The term *Pretreatment* means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration may be obtained by physical, chemical or biological processes, process changes or by other means, except as prohibited by § 403.6(d). Appropriate pretreatment technology includes control equipment, such as equalization tanks or facilities, for protection against surges or slug loadings that might interfere with or otherwise be incompatible with the POTW. However, where wastewater from a regulated process is mixed in an equalization facility with unregulated wastewater or with wastewater from another regulated process, the effluent from the equalization facility must meet an adjusted pretreatment limit calculated in accordance with § 403.6(e).

(t) The term *Pretreatment requirements* means any substantive or procedural requirement related to Pretreatment, other than a National Pretreatment Standard, imposed on an Industrial User.

(u) The term *Regional Administrator* means the appropriate EPA Regional Administrator.

(v) *Significant Industrial User*. (1) Except as provided in paragraphs (v)(2) and (v)(3) of this section, the term Significant Industrial User means:

(i) All Industrial Users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N; and

(ii) Any other Industrial User that: discharges an average of 25,000 gallons per day or more of process wastewater

to the POTW (excluding sanitary, non-contact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW Treatment plant; or is designated as such by the Control Authority on the basis that the Industrial User has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

(2) The Control Authority may determine that an Industrial User subject to categorical Pretreatment Standards under §403.6 and 40 CFR chapter I, subchapter N is a Non-Significant Categorical Industrial User rather than a Significant Industrial User on a finding that the Industrial User never discharges more than 100 gallons per day (gpd) of total categorical wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater, unless specifically included in the Pretreatment Standard) and the following conditions are met:

(i) The Industrial User, prior to the Control Authority's finding, has consistently complied with all applicable categorical Pretreatment Standards and Requirements;

(ii) The Industrial User annually submits the certification statement required in §403.12(q) together with any additional information necessary to support the certification statement; and

(iii) The Industrial User never discharges any untreated concentrated wastewater.

(3) Upon a finding that an Industrial User meeting the criteria in paragraph (v)(1)(ii) of this section has no reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standards or requirement, the Control Authority may at any time, on its own initiative or in response to a petition received from an Industrial User or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such Industrial User is not a Significant Industrial User.

(w) The term *Submission* means:

(1) A request by a POTW for approval of a Pretreatment Program to the EPA or a Director;

(2) A request by a POTW to the EPA or a Director for authority to revise the discharge limits in categorical Pretreatment Standards to reflect POTW pollutant removals; or

(3) A request to the EPA by an NPDES State for approval of its State pretreatment program.

[46 FR 9439, Jan. 28, 1981, as amended at 49 FR 5132, Feb. 10, 1984; 49 FR 28059, July 10, 1984; 51 FR 20430, June 4, 1986; 51 FR 23760, July 1, 1986; 52 FR 1600, Jan. 14, 1987; 53 FR 40610, Oct. 17, 1988; 55 FR 30129, July 24, 1990; 70 FR 60191, Oct. 14, 2005]

**§403.4 State or local law.**

Nothing in this regulation is intended to affect any Pretreatment Requirements, including any standards or prohibitions, established by State or local law as long as the State or local requirements are not less stringent than any set forth in National Pretreatment Standards, or any other requirements or prohibitions established under the Act or this regulation. States with an NPDES permit program approved in accordance with section 402 (b) and (c) of the Act, or States requesting NPDES programs, are responsible for developing a State pretreatment program in accordance with §403.10 of this regulation.

**§403.5 National pretreatment standards: Prohibited discharges.**

(a)(1) *General prohibitions*. A User may not introduce into a POTW any pollutant(s) which cause Pass Through or Interference. These general prohibitions and the specific prohibitions in paragraph (b) of this section apply to each User introducing pollutants into a POTW whether or not the User is subject to other National Pretreatment Standards or any national, State, or local Pretreatment Requirements.

(2) *Affirmative Defenses*. A User shall have an affirmative defense in any action brought against it alleging a violation of the general prohibitions established in paragraph (a)(1) of this section and the specific prohibitions in paragraphs (b)(3), (b)(4), (b)(5), (b)(6), and (b)(7) of this section where the User can demonstrate that:

(i) It did not know or have reason to know that its Discharge, alone or in conjunction with a discharge or discharges from other sources, would cause Pass Through or Interference; and

(ii)(A) A local limit designed to prevent Pass Through and/or Interference, as the case may be, was developed in accordance with paragraph (c) of this section for each pollutant in the User's Discharge that caused Pass Through or Interference, and the User was in compliance with each such local limit directly prior to and during the Pass Through or Interference; or

(B) If a local limit designed to prevent Pass Through and/or Interference, as the case may be, has not been developed in accordance with paragraph (c) of this section for the pollutant(s) that caused the Pass Through or Interference, the User's Discharge directly prior to and during the Pass Through or Interference did not change substantially in nature or constituents from the User's prior discharge activity when the POTW was regularly in compliance with the POTW's NPDES permit requirements and, in the case of Interference, applicable requirements for sewage sludge use or disposal.

(b) *Specific prohibitions.* In addition, the following pollutants shall not be introduced into a POTW:

(1) Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21;

(2) Pollutants which will cause corrosive structural damage to the POTW, but in no case Discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such Discharges;

(3) Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in Interference;

(4) Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a Discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW.

(5) Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40 °C (104 °F) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits.

(6) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

(7) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;

(8) Any trucked or hauled pollutants, except at discharge points designated by the POTW.

(c) *When specific limits must be developed by POTW.* (1) Each POTW developing a POTW Pretreatment Program pursuant to § 403.8 shall develop and enforce specific limits to implement the prohibitions listed in paragraphs (a)(1) and (b) of this section. Each POTW with an approved pretreatment program shall continue to develop these limits as necessary and effectively enforce such limits.

(2) All other POTW's shall, in cases where pollutants contributed by User(s) result in Interference or Pass-Through, and such violation is likely to recur, develop and enforce specific effluent limits for Industrial User(s), and all other users, as appropriate, which, together with appropriate changes in the POTW Treatment Plant's facilities or operation, are necessary to ensure renewed and continued compliance with the POTW's NPDES permit or sludge use or disposal practices.

(3) Specific effluent limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.

(4) POTWs may develop Best Management Practices (BMPs) to implement paragraphs (c)(1) and (c)(2) of this section. Such BMPs shall be considered local limits and Pretreatment Standards for the purposes of this part and section 307(d) of the Act.

(d) *Local limits.* Where specific prohibitions or limits on pollutants or pollutant parameters are developed by a

POTW in accordance with paragraph (c) above, such limits shall be deemed Pretreatment Standards for the purposes of section 307(d) of the Act.

(e) EPA enforcement actions under section 309(f) of the Clean Water Act.

If, within 30 days after notice of an Interference or Pass Through violation has been sent by EPA to the POTW, and to persons or groups who have requested such notice, the POTW fails to commence appropriate enforcement action to correct the violation, EPA may take appropriate enforcement action under the authority provided in section 309(f) of the Clean Water Act.

[46 FR 9439, Jan. 28, 1981, as amended at 51 FR 20430, June 4, 1986; 52 FR 1600, Jan. 14, 1987; 55 FR 30129, July 24, 1990; 60 FR 33932, June 29, 1995; 70 FR 60192, Oct. 14, 2005]

**§403.6 National pretreatment standards: Categorical standards.**

National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories will be established as separate regulations under the appropriate subpart of 40 CFR chapter I, subchapter N. These standards, unless specifically noted otherwise, shall be in addition to all applicable pretreatment standards and requirements set forth in this part.

(a) *Category Determination Request*—(1) *Application Deadline.* Within 60 days after the effective date of a Pretreatment Standard for a subcategory under which an Industrial User may be included, the Industrial User or POTW may request that the Water Management Division Director or Director, as appropriate, provide written certification on whether the Industrial User falls within that particular subcategory. If an existing Industrial User adds or changes a process or operation which may be included in a subcategory, the existing Industrial User must request this certification prior to commencing discharge from the added or changed processes or operation. A New Source must request this certification prior to commencing discharge. Where a request for certification is submitted by a POTW, the POTW shall notify any affected Industrial User of such submission. The Industrial User may provide written comments on the POTW submission to the Water Management Division Director or Director, as appropriate, within 30 days of notification.

(2) *Contents of Application.* Each request shall contain a statement:

(i) Describing which subcategories might be applicable; and

(ii) Citing evidence and reasons why a particular subcategory is applicable and why others are not applicable. Any person signing the application statement submitted pursuant to this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(3) *Deficient requests.* The Water Management Division Director or Director will only act on written requests for determinations that contain all of the information required. Persons who have made incomplete submissions will be notified by the Water Management Division Director or Director that their requests are deficient and, unless the time period is extended, will be given 30 days to correct the deficiency. If the deficiency is not corrected within 30 days or within an extended period allowed by the Water Management Division Director or the Director, the request for a determination shall be denied.

(4) *Final decision.* (i) When the Water Management Division Director or Director receives a submittal he or she will, after determining that it contains all of the information required by paragraph (2) of this section, consider the submission, any additional evidence that may have been requested, and any other available information relevant to the request. The Water Management Division Director or Director will then

Battery powered equipment
Battery powered vehicle
Carbon dioxide, solid
Castor bean
Castor flake
Castor meal
Castor pomace
Consumer commodity
Dry ice
Engines, internal combustion
Fish meal, stabilized
Fish scrap, stabilized
Refrigerating machine
Vehicle, flammable gas powered
Vehicle, flammable liquid powered
Wheelchair, electric

[Amdt. 172–116, 54 FR 27145, June 27, 1989, as amended at 55 FR 33713, Aug. 17, 1990; Amdt. 172–127, 59 FR 49133, Sept. 26, 1994; Amdt. 172–149, 61 FR 27173, May 30, 1996; 65 FR 50460, Aug. 18, 2000; 65 FR 58628, Sept. 29, 2000; 66 FR 45182, Aug. 28, 2001; 69 FR 64473, Nov. 4, 2004]

### § 172.606 Carrier information contact.

(a) Each carrier who transports or accepts for transportation a hazardous material for which a shipping paper is required shall instruct the operator of a motor vehicle, train, aircraft, or vessel to contact the carrier (e.g., by telephone or mobile radio) in the event of an incident involving the hazardous material.

(b) For transportation by highway, if a transport vehicle, (e.g., a semi-trailer or freight container-on-chassis) contains hazardous material for which a shipping paper is required and the vehicle is separated from its motive power and parked at a location other than a facility operated by the consignor or consignee or a facility (e.g., a carrier's terminal or a marine terminal) subject to the provisions of §172.602(c)(2), the carrier shall—

(1) Mark the transport vehicle with the telephone number of the motor carrier on the front exterior near the brake hose and electrical connections or on a label, tag, or sign attached to the vehicle at the brake hose or electrical connection; or

(2) Have the shipping paper and emergency response information readily available on the transport vehicle.

(c) The requirements specified in paragraph (b) of this section do not apply to an unattended motor vehicle separated from its motive power when the motor vehicle is marked on an orange panel, a placard, or a plain white square-on-point configuration with the identification number of each hazardous material loaded therein, and the marking or placard is visible on the outside of the motor vehicle.

[Amdt. 172–151, 62 FR 1234, Jan. 8, 1997, as amended at 62 FR 39398 and 39409, July 22, 1997; 63 FR 16076, Apr. 1, 1998]

## Subpart H—Training

SOURCE: Amdt. 172–126, 57 FR 20952, May 15, 1992, unless otherwise noted.

### § 172.700 Purpose and scope.

(a) *Purpose.* This subpart prescribes requirements for training hazmat employees.

(b) *Scope.* Training as used in this subpart means a systematic program that ensures a hazmat employee has familiarity with the general provisions of this subchapter, is able to recognize and identify hazardous materials, has knowledge of specific requirements of this subchapter applicable to functions performed by the employee, and has knowledge of emergency response information, self-protection measures and accident prevention methods and procedures (see §172.704).

(c) *Modal-specific training requirements.* Additional training requirements for the individual modes of transportation are prescribed in parts 174, 175, 176, and 177 of this subchapter.

### § 172.701 Federal-State relationship.

This subpart and the parts referenced in §172.700(c) prescribe minimum training requirements for the transportation of hazardous materials. For motor vehicle drivers, however, a State may impose more stringent training requirements only if those requirements—

(a) Do not conflict with the training requirements in this subpart and in part 177 of this subchapter; and

(b) Apply only to drivers domiciled in that State.

### § 172.702 Applicability and responsibility for training and testing.

(a) A hazmat employer shall ensure that each of its hazmat employees is trained in accordance with the requirements prescribed in this subpart.

(b) Except as provided in § 172.704(c)(1), a hazmat employee who performs any function subject to the requirements of this subchapter may not perform that function unless instructed in the requirements of this subchapter that apply to that function. It is the duty of each hazmat employer to comply with the applicable requirements of this subchapter and to thoroughly instruct each hazmat employee in relation thereto.

(c) Training may be provided by the hazmat employer or other public or private sources.

(d) A hazmat employer shall ensure that each of its hazmat employees is tested by appropriate means on the training subjects covered in § 172.704.

[Amdt. 172–126, 57 FR 20952, May 15, 1992; 57 FR 22182, May 27, 1992, as amended by Amdt. 172–149, 61 FR 27173, May 30, 1996]

**§ 172.704 Training requirements.**

(a) Hazmat employee training must include the following:

(1) *General awareness/familiarization training.* Each hazmat employee shall be provided general awareness/familiarization training designed to provide familiarity with the requirements of this subchapter, and to enable the employee to recognize and identify hazardous materials consistent with the hazard communication standards of this subchapter.

(2) *Function-specific training.* (i) Each hazmat employee must be provided function-specific training concerning requirements of this subchapter, or exemptions or special permits issued under subchapter A of this chapter, that are specifically applicable to the functions the employee performs.

(ii) As an alternative to function-specific training on the requirements of this subchapter, training relating to the requirements of the ICAO Technical Instructions and the IMDG Code may be provided to the extent such training addresses functions authorized by §§ 171.11 and 171.12 of this subchapter.

(3) *Safety training.* Each hazmat employee shall receive safety training concerning—

(i) Emergency response information required by subpart G of part 172;

(ii) Measures to protect the employee from the hazards associated with hazardous materials to which they may be exposed in the work place, including specific measures the hazmat employer has implemented to protect employees from exposure; and

(iii) Methods and procedures for avoiding accidents, such as the proper procedures for handling packages containing hazardous materials.

(4) *Security awareness training.* No later than the date of the first scheduled recurrent training after March 25, 2003, and in no case later than March 24, 2006, each hazmat employee must receive training that provides an awareness of security risks associated with hazardous materials transportation and methods designed to enhance transportation security. This training must also include a component covering how to recognize and respond to possible security threats. After March 25, 2003, new hazmat employees must receive the security awareness training required by this paragraph within 90 days after employment.

(5) *In-depth security training.* By December 22, 2003, each hazmat employee of a person required to have a security plan in accordance with subpart I of this part must be trained concerning the security plan and its implementation. Security training must include company security objectives, specific security procedures, employee responsibilities, actions to take in the event of a security breach, and the organizational security structure.

(b) *OSHA, EPA, and other training.* Training conducted by employers to comply with the hazard communication programs required by the Occupational Safety and Health Administration of the Department of Labor (29 CFR 1910.120 or 1910.1200) or the Environmental Protection Agency (40 CFR 311.1), or training conducted by employers to comply with security training programs required by other Federal or international agencies, may be used to satisfy the training requirements in paragraph (a) of this section to the extent that such training addresses the training components specified in paragraph (a) of this section.

(c) *Initial and recurrent training*—(1) *Initial training.* A new hazmat employee, or a hazmat employee who changes job functions may perform those functions prior to the completion of training provided—

(i) The employee performs those functions under the direct supervision of a properly trained and knowledgeable hazmat employee; and

(ii) The training is completed within 90 days after employment or a change in job function.

(2) *Recurrent training.* A hazmat employee shall receive the training required by this subpart at least once every three years.

(3) *Relevant Training.* Relevant training received from a previous employer or other source may be used to satisfy the requirements of this subpart provided a current record of training is obtained from hazmat employees' previous employer.

(4) *Compliance.* Each hazmat employer is responsible for compliance with the requirements of this subchapter regardless of whether the training required by this subpart has been completed.

(d) *Recordkeeping.* A record of current training, inclusive of the preceding three years, in accordance with this section shall be created and retained by each hazmat employer for as long as that employee is employed by that employer as a hazmat employee and for 90 days thereafter. The record shall include:

(1) The hazmat employee's name;

(2) The most recent training completion date of the hazmat employee's training;

(3) A description, copy, or the location of the training materials used to meet the requirements in paragraph (a) of this section;

(4) The name and address of the person providing the training; and

(5) Certification that the hazmat employee has been trained and tested, as required by this subpart.

(e) *Limitations.* The following limitations apply:

(1) A hazmat employee who repairs, modifies, reconditions, or tests packagings, as qualified for use in the transportation of hazardous materials, and who does not perform any other function subject to the requirements of this subchapter, is not subject to the training requirement of paragraph (a)(3) of this section.

(2) A railroad maintenance-of-way employee or railroad signalman, who does not perform any function subject to the requirements of this subchapter, is not subject to the training requirements of paragraphs (a)(2), (a)(4), or (a)(5) of this section. Initial training for a railroad maintenance-of-way employee or railroad signalman in accordance with this section must be completed by October 1, 2006.

[Amdt. 172–126, 57 FR 20952, May 15, 1992, as amended by Amdt. 172–126, 58 FR 5851, Jan. 22, 1993; Amdt. 172–145, 60 FR 49110, Sept. 21, 1995; Amdt. 172–149, 61 FR 27173, May 30, 1996; 65 FR 50460, Aug. 18, 2000; 68 FR 14521, Mar. 25, 2003; 70 FR 73164, Dec. 9, 2005]

## Subpart I—Security Plans

SOURCE: 68 FR 14521, Mar. 25, 2003, unless otherwise noted.

### § 172.800 Purpose and applicability.

(a) *Purpose.* This subpart prescribes requirements for development and implementation of plans to address security risks related to the transportation of hazardous materials in commerce.

(b) *Applicability.* By September 25, 2003, each person who offers for transportation in commerce or transports in commerce one or more of the following hazardous materials must develop and adhere to a security plan for hazardous materials that conforms to the requirements of this subpart:

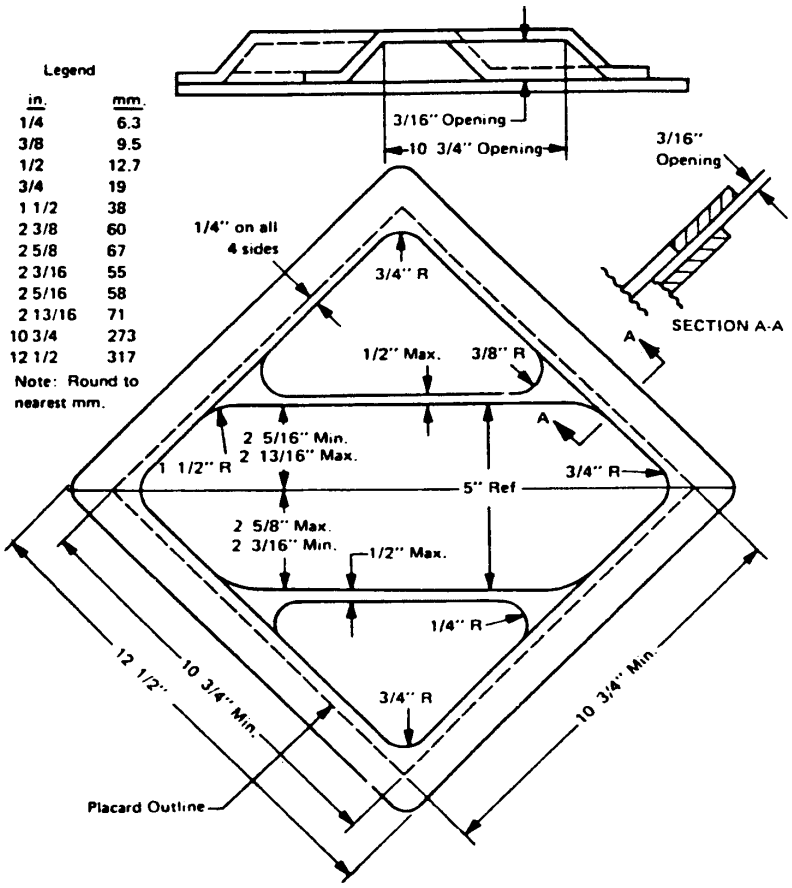
(1) A highway route-controlled quantity of a Class 7 (radioactive) material, as defined in § 173.403 of this subchapter, in a motor vehicle, rail car, or freight container;

(2) More than 25 kg (55 pounds) of a Division 1.1, 1.2, or 1.3 (explosive) material in a motor vehicle, rail car, or freight container;

(3) More than one L (1.06 qt) per package of a material poisonous by inhalation, as defined in § 171.8 of this subchapter, that meets the criteria for Hazard Zone A, as specified in §§ 173.116(a) or 173.133(a) of this subchapter;

(4) A shipment of a quantity of hazardous materials in a bulk packaging

APPENDIX C TO PART 172—DIMENSIONAL SPECIFICATIONS FOR RECOMMENDED PLACARD HOLDER




## PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

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APPENDIX C TO PART 173—PROCEDURE FOR BASE-LEVEL VIBRATION TESTING
APPENDIX D TO PART 173—TEST METHODS FOR DYNAMITE (EXPLOSIVE, BLASTING, TYPE A)
APPENDIXES E–G TO PART 173 [RESERVED]
APPENDIX H TO PART 173—METHOD OF TESTING FOR SUSTAINED COMBUSTIBILITY

AUTHORITY: 49 U.S.C. 5101–5127, 44701; 49 CFR 1.45, 1.53.

EDITORIAL NOTE: Nomenclature changes to part 173 appear at 70 FR 56098, Sept. 23, 2005.

## Subpart A—General

### § 173.1 Purpose and scope.

(a) This part includes:

(1) Definitions of hazardous materials for transportation purposes;

(2) Requirements to be observed in preparing hazardous materials for shipment by air, highway, rail, or water, or any combination thereof; and

(3) Inspection, testing, and retesting responsibilities for persons who retest, recondition, maintain, repair and rebuild containers used or intended for use in the transportation of hazardous materials.

(b) A shipment of hazardous materials that is not prepared in accordance with this subchapter may not be offered for transportation by air, highway, rail, or water. It is the responsibility of each hazmat employer subject to the requirements of this subchapter to ensure that each hazmat employee is trained in accordance with the requirements prescribed in this subchapter. It is the duty of each person who offers hazardous materials for transportation to instruct each of his officers, agents, and employees having any responsibility for preparing hazardous materials for shipment as to applicable regulations in this subchapter.

(c) In general, the Hazardous Materials Regulations (HMR) contained in this subchapter are based on the UN Recommendations and are consistent with international regulations issued by the International Civil Aviation Organization (ICAO Technical Instructions) and the International Maritime Organization (IMDG Code). However, the HMR are not consistent in all respects with the UN Recommendations, the ICAO Technical Instructions or the IMDG Code, and compliance with the HMR will not guarantee acceptance by regulatory bodies outside of the United States.

[Amdt. 173–94, 41 FR 16062, Apr. 15, 1976, as amended by Amdt. 173–100, 41 FR 40476, Sept. 20, 1976; Amdt. 173–161, 48 FR 2655, Jan. 20, 1983; Amdt. 173–224, 55 FR 52606, Dec. 21, 1990; Amdt. 173–231, 57 FR 20953, May 15, 1992; 64 FR 10776, Mar. 5, 1999; 68 FR 61941, Oct. 30, 2003]

### § 173.2 Hazardous materials classes and index to hazard class definitions.

The hazard class of a hazardous material is indicated either by its class (or division) number, its class name, or by the letters ''ORM-D''. The following table lists class numbers, division numbers, class or division names and those sections of this subchapter which contain definitions for classifying hazardous materials, including forbidden materials.

| Class No. | Division No. (if any) | Name of class or division | 49 CFR reference for definitions |
|---|---|---|---|
| None | ..... | Forbidden materials | 173.21 |
| None | ..... | Forbidden explosives | 173.54 |
| 1 | 1.1 | Explosives (with a mass explosion hazard) | 173.50 |
| 1 | 1.2 | Explosives (with a projection hazard) | 173.50 |
| 1 | 1.3 | Explosives (with predominately a fire hazard) | 173.50 |
| 1 | 1.4 | Explosives (with no significant blast hazard) | 173.50 |
| 1 | 1.5 | Very insensitive explosives; blasting agents | 173.50 |
| 1 | 1.6 | Extremely insensitive detonating substances | 173.50 |
| 2 | 2.1 | Flammable gas | 173.115 |

# V Pennsylvania-Specific Rules

The following citations were used to support the findings based on Pennsylvania-specific regulations. The citations are listed in numeric order.

## CHAPTER 128. PESTICIDES


| Subchap. | | Sec. |
|---|---|---|
| A. | GENERAL PROVISIONS | 128.1 |
| B. | LICENSES, CERTIFICATES AND PERMITS | 128.11 |
| C. | PRIOR NOTIFICATION | 128.81 |
| D. | REGISTRATION OF PESTICIDES | 128.91 |
| E. | MISCELLANEOUS | 128.101 |
| F. | PESTICIDE HYPERSENSITIVITY REGISTRY | 128.111 |


**Authority**

The provisions of this Chapter 128 issued under the Pennsylvania Pesticide Control Act of 1973 (3 P. S. §§ 111.21—111.61), unless otherwise noted.

**Source**

The provisions of this Chapter 128 adopted February 2, 1990, effective February 3, 1990, 20 Pa.B. 488, unless otherwise noted.

**Cross References**

This chapter cited in 7 Pa. Code § 138i.3 (relating to limitation on grants); 7 Pa. Code § 138j.3 (relating to limitation on grants); 7 Pa. Code § 138k.3 (relating to limitations on grants); and 7 Pa. Code § 147.726 (relating to operation).

### Subchapter A. GENERAL PROVISIONS


Sec.
128.1. Scope.
128.2. Definitions.
128.3. Fees.


### § 128.1. Scope.

This chapter prescribes policies and procedures relating to the following:

(1) The labeling, distribution, storage and registration of pesticides.

(2) The classification of restricted use pesticides.

(3) The certification of pesticide applicators.

(4) The licensing of pesticide dealers, commercial and public pesticide businesses and pest management consultants.

(5) The registration of pesticide application technicians and the prior notification of proposed pesticide applications.

### § 128.2. Definitions.

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

*Act*—The Pennsylvania Pesticide Control Act of 1973 (3 P. S. §§ 111.21—111.61).

*Application site*—The specific location where a pesticide is applied.

*Applicator certificate*—A form issued by the Department to a commercial or public applicator following the successful completion of a certification examination or other certification requirements.

*Area-wide application*—A nonagricultural pesticide application to areas of 25 or more contiguous acres or a nonagricultural pesticide application made by or at the direction of a governmental entity to properties of more than one person.

*Available if and when needed*—The ability of a certified applicator to communicate with a person applying pesticides under his supervision so that the certified applicator can provide instructions and exercise control over the application and can be at the application site within 5 hours of receiving notification that his physical presence is necessary.

*Business*—A governmental entity or commercial establishment for profit or not-for-profit. For a pesticide application business having more than one place of business or operating under more than one name within this Commonwealth, each place of business and each name shall be considered a separate business. For a State or Federal entity, each district or region will be considered a separate business.

*Common access area*—The areas within a school building where students/attendees normally congregate, assemble or frequent during normal academic instruction or extracurricular activities. The term does not include areas such as kitchens, boiler rooms, utility/maintenance rooms and areas which are physically blocked or restricted from student/attendee access.

*Current registry*—The Pesticide Hypersensitivity Registry with the most recent effective date.

*Department*—The Department of Agriculture of the Commonwealth.

*EPA*—The United States Environmental Protection Agency.

*Formulation*—The physical composition of the pesticide product; for example, ''dust,'' ''emulsifiable concentrate,'' ''wettable powder'' and ''granular'' are ways to describe the formulation of a pesticide product.

*Fumigant*—A pesticide that when released forms a gas.

*General use pesticide*—A pesticide not classified for restricted use.

*Governmental entity*—An executive or independent agency or unit of the Commonwealth, or local agency, including a county, a city, a borough, town, township, school district, municipal authority or political subdivision thereof.

*Integrated pest management*—The managed use of combined pest control alternatives, including cultural, mechanical, biological and chemical, to most effectively prevent or reduce to acceptable levels damage caused by pests.

*Land contiguous to a restricted use pesticide application site*—Premises which share a mutual border with the premises upon which the application site is located. The term does not include premises located more than 100 feet from the application site.

*Pesticide end-use dilution*—Pesticide material resulting from the dilution of a registered pesticide according to label direction.

*Pesticide hypersensitivity*—Excessive or abnormal sensitivity to pesticides.

*Primary residence*—An individual's legal residence.



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*Prior notification*—Notification of a proposed application of pesticides given not more than 45 days and not less than 14 days prior to the date of application which contains the following information:

(i) The proposed date of application.

(ii) The municipalities where the proposed application sites are located.

(iii) The name, address and telephone number of a person to whom requests for additional information should be directed.

*Private park*—Privately owned outdoor real estate which includes a recreational area for use by the public, including an area with restricted access.

*Production of an agricultural commodity*—The term includes activities involved in the raising of plants or animals and their products. The term does not include the protection or maintenance of harvested crops, slaughtered livestock or plant and animal products unless the protection or maintenance is carried out by the original producer of the agricultural commodity, who is a private applicator, or another private applicator.

*Public park*—Publicly owned outdoor real estate which includes a recreational area for use by the public, including an area with restricted access.

*Recreational area*—An outdoor place of relaxation, play or exercise.

*Restricted use pesticide*—The term includes the following:

(i) A pesticide classified for restricted use under section 3(d) of the Federal Insecticide, Fungicide and Rodenticide Act of 1947 (7 U.S.C.A. § 136(d)).

(ii) A pesticide designated by the Secretary for restricted use under section 7(b)(6) of the act (3 P. S. § 111.27(b)(6)).

*School*—A public, nonpublic or licensed private elementary or secondary school wherein a resident of this Commonwealth may fulfill the compulsory school attendance requirements and which meets the applicable requirements of Title IV of the Civil Rights Act of 1964 (42 U.S.C.A. § 2000c) (Public Law 88-352, 78 Stat. 241). The term also includes a kindergarten or preschool program operated by a school and a child day care center operating under a certificate of compliance issued by the Department of Public Welfare.

*Secondary location*—An address where an individual may be located other than the individual's primary residence, limited to the following:

(i) Place of employment.

(ii) School.

(iii) Vacation home.

*Secretary*—The Secretary of the Department.

*Service container*—A container other than the original labeled container of a registered pesticide used for the purpose of holding, storing or transporting an original registered pesticide material or a pesticide end-use dilution.

*Specific site application*—A nonagricultural pesticide application made by or at the direction of a person to property owned or rented by that person.

*Swimming pool*—An outdoor or indoor place used for bathing or for amateur, professional or recreative swimming.

*Under the direct supervision of*—The term includes the following:

(i) For a commercial or public certified applicator, the application of a pesticide by a registered pesticide application technician acting with the instructions and under the control of a certified applicator who is responsible for the actions of the technician and who is available when needed; or the application of a pesticide by a nonregistered or noncertified employe acting with the instructions and under the control of a certified applicator who is responsible for the actions of the employe and physically present at the application site. The supervising applicator shall be certified in the appropriate category relating to the application.

(ii) For a private certified applicator, the application of a restricted use pesticide by a noncertified person acting under the instructions and control of a certified applicator who is responsible for the actions of that person and who is available when needed.

*Upon written request*—The term includes a notice of inspection issued by the Department.

*Use, or cause to be used, a pesticide inconsistent with its labeling*—The use of a pesticide in a manner not permitted by its labeling. This phrase does not include:

(i) Applying a pesticide at a dosage, concentration or frequency less than that specified on its labeling.

(ii) Applying a pesticide against a target pest not specified on the labeling if the application is to the crop, animal or site specified on the labeling unless the labeling specifically states that the pesticide may only be used for the pests specified on the labeling.

(iii) Employing a method of application not prohibited by the labeling.

(iv) Mixing a pesticide with a fertilizer where the mixture is not prohibited by the labeling.

**Source**

The provisions of this § 128.2 amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5945. Immediately preceding text appears at serial pages (172159) to (172160) and (182111) to (182112).

**Cross References**

This section cited in 7 Pa. Code § 46.1026 (relating to pesticides).

## § 128.3. Fees.

(a) *Pesticide dealer's license*. The annual fee for a pesticide dealer's license is $10. The fee for a duplicate pesticide dealer's license is $3.

(b) *Pest management consultant's license*. The annual fee for a pest management consultant's license is $25. The fee for a duplicate pest management consultant license is $8.



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(c) *Pesticide application business' license*. The annual fee for a pesticide application business' license is $35. The fee for a duplicate pesticide application business license is $8.

(d) *Commercial applicator's certificate*. The annual fee for the commercial applicator's certificate is $40. When the initial certification requires examination, no fee will be charged. The fee for a duplicate commercial applicator's certificate is $10.

(e) *Public applicator's certificate*. The triennial fee for a public applicator's certificate is $10. A fee is not required when the initial certification requires examination. The fee for a duplicate public applicator's certificate is $3.

(f) *Examination fees*. Examination fees are nonrefundable. The following examination fees, with payment made in advance, will be charged:

(1) Commercial/public applicator's core examination—$50.

(2) Commercial/public applicator's category examination—$10.

(3) Private applicator's examination—no charge.

(4) Pest management consultant's examination—no charge except that a fee of $5 will be charged if an examination is requested on other than a regularly scheduled examination date.

(g) *Registration fee for a pesticide application technician*.

(i) *Commercial pesticide application technician*. An annual registration fee of $30 will be charged to register a commercial pesticide application technician with the Department. The fee for a duplicate technician registration is $7.

(ii) *Public pesticide application technician*. An annual registration fee of $20 will be charged to register a public pesticide application technician with the Department. The fee for a duplicate technician registration is $7.

(h) *Private applicator's permit*. The triennial fee for a private applicator's permit is $10. The fee for a duplicate private applicator's permit is $3. A fee will not be charged for a special permit which may be issued in conjunction with the private applicator's permit.

(i) *Product registration*. The annual fee to register a pesticide is $135.

**Authority**

The provisions of this § 128.3 amended under section 7(b) of the Pesticide Control Act of 1973 (3 P. S. § 111.27(b)).

**Source**

The provisions of this § 128.3 adopted February 2, 1990, effective February 3, 1990, 20 Pa.B. 488; amended October 18, 1991, effective October 19, 1991, 21 Pa.B. 4949; amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5945; amended October 12, 2001, effective October 13, 2001, 31 Pa.B. 5704. Immediately preceding text appears at serial pages (206520) to (206521).

**Cross References**

This section cited in 7 Pa. Code § 128.45 (relating to recertification); 7 Pa. Code § 128.63 (relating to recertification); and 7 Pa. Code § 128b.5 (relating to funding).

## Subchapter B. LICENSES, CERTIFICATES AND PERMITS

### PESTICIDE DEALERS

Sec.
128.11. Recordkeeping.

### PEST MANAGEMENT CONSULTANTS

128.21. Determination of competence.
128.22. Licensing.
128.23. Categories of pest management consultant.
128.24. Recordkeeping.

### PESTICIDE APPLICATION BUSINESSES

128.31. Licensing requirements.
128.32. Categories of business licenses.
128.33. Assignment of work.
128.34. Financial responsibility.
128.35. Recordkeeping.

### COMMERCIAL AND PUBLIC APPLICATORS

128.41. Requirements for certification.
128.42. Categories of commercial and public applicators.
128.43. Determination of competence.
128.44. Eligibility.
128.45. Recertification.

### PESTICIDE APPLICATION TECHNICIANS

128.51. Training program.
128.52. Registration.
128.53. Recordkeeping.

### PRIVATE APPLICATORS

128.61. Determination of competence.
128.62. Eligibility.



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128.63. Recertification.
128.64. Fumigation by a private applicator.
128.65. Recordkeeping.

**RECIPROCITY**

128.71. General.
128.72. Procedure.

**PESTICIDE DEALERS**

**§ 128.11. Recordkeeping.**

(a) A pesticide dealer shall keep for each sale of a restricted use pesticide a record containing the following information:

(1) The name and address of the customer and his applicator's certificate number or business or dealer's license number.

(2) The brand name and formulation of the restricted use pesticide that was purchased.

(3) The amount of the pesticide that was purchased.

(4) The date of the purchase.

(b) A record required to be kept under this section shall be maintained for at least 3 years and shall be made immediately available to the Department upon request or immediately available to medical personnel in an emergency.

**Cross References**

This section cited in 7 Pa. Code § 130d.4 (relating to retained recordkeeping).

**PEST MANAGEMENT CONSULTANTS**

**§ 128.21. Determination of competence.**

A pest management consultant shall prove his competence by passing a written proctored examination.

**§ 128.22. Licensing.**

Upon passing a written examination and the payment of the annual fee, the Department will issue a pest management consultant's license.

**§ 128.23. Categories of pest management consultant.**

The specialty categories for a pest management consultant will conform with the categories of commercial and public applicators established under § 128.42 (relating to categories of commercial and public applicators).

**§ 128.24. Recordkeeping.**

(a) A pest management consultant shall keep for each instance in which he provides technical advice, supervision or aid or makes a recommendation to the user of a restricted use pesticide, the following information:

(1) The name and address of the person for whom this service was provided.

(2) The brand name and formulation of the pesticides recommended to be used.

(3) The amount of the pesticides recommended to be used.

(4) The dosage or rate of the pesticides recommended to be used.

(5) The date on which this service was provided.

(b) A record required to be kept under this section shall be maintained for at least 3 years and shall be made immediately available to the Department upon request or to medical personnel in an emergency.

**Cross References**

This section cited in 7 Pa. Code § 130d.4 (relating to retained recordkeeping).

## PESTICIDE APPLICATION BUSINESSES

### § 128.31. Licensing requirements.

(a) A pesticide application business may not be operated without first obtaining a pesticide application business license.

(b) The license period shall end on December 31 each year, except that the Department may issue a license for the following year when an initial license application is filed during the last 2 months of a licensing year.

(c) A pesticide application business shall prominently display on every vehicle involved in the pesticide application phase of its business the license number assigned by the Department. The number shall be in figures at least 3 inches high and shall be located on both sides of the vehicle at a readily visible location.

(d) A licensed business shall notify the Department in writing within 15 days of a change in information in its application for licensing, or if it is no longer engaged in the application of pesticides.

(e) A business that meets the definition of a commercial applicator as defined in section 4(6)(C) of the act (3 P. S. § 111.24(6)(C)) may not apply a pesticide without having a certified applicator physically present at the application site unless all application personnel on site are registered technicians.

**Source**

The provisions of this § 128.31 amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5945. Immediately preceding text appears at serial page (144305).

### § 128.32. Categories of business licenses.

A commercial or public business shall identify in its application those business categories in which it desires to operate. A business shall employ for each busi-



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ness category in which it makes a pesticide application at least one applicator who is certified in a specific applicator category recognized under the general business category and shall limit its applications to those applicator categories in which it employs at least one certified applicator. The business categories are listed in paragraphs (1)—(10). The applicator categories recognized under a particular business category are listed under that business category.

(1) *Category (A)*—Agricultural Plant Pest Control.
- 01 Agronomic Crops
- 02 Fruits and Nuts
- 03 Vegetable Crops
- 05 Forest Pest Control
- 08 Seed Treatment

(2) *Category (B)*—Agricultural Animal Pest Control.
- 04 Agricultural Animals

(3) *Category (C)*—Ornamental and Turf Pest Control.
- 06 Ornamental and Shade Trees
- 07 Lawn and Turf
- 22 Interior Plantscape

(4) *Category (D)*—Aquatic Pest Control.
- 09 Aquatic Pest Control
- 24 Swimming Pools

(5) *Category (E)*—Right-of-Way Pest Control.
- 10 Right-of-Way

(6) *Category (F)*—Industrial, Institutional, Structural and Health Related.
- 11 Household and Health Related
- 12 Wood Destroying Pests
- 14 Industrial Weeds
- 15 Public Health Vertebrate Pest Control
- 16 Public Health Invertebrate Pest Control
- 19 Wood Preservation
- 23 Park or school Pest Control

(7) *Category (G)*—Fumigation.
- 13 Structural Fumigation
- 20 Commodity and Space Fumigation
- 21 Soil Fumigation

(8) *Category (H)*—Demonstration and Research.
- 18 Demonstration and Research Pest Control

(9) *Category (I)*—Regulatory.
- 17 Regulatory Pest Control

(10) *Category (J)*—Aerial Applicator.
- 25 Aerial Applicator

**Source**

The provisions of this § 128.32 amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5945. Immediately preceding text appears at serial pages (144305) to (144306).

## § 128.33. Assignment of work.

A pesticide application business may not permit an individual to make a pesticide application in an applicator category in which the individual has not been certified as an applicator or trained and registered as a technician.

## § 128.34. Financial responsibility.

(a) The Department will consider a certificate of insurance from an insurer or surety to be evidence of financial responsibility if the insurer or surety is licensed to do business under section 7 of the act of January 24, 1966 (P. L. 1509, No. 531) (40 P. S. § 1006.7), known as the Surplus Lines Insurance Law, or otherwise permitted by Federal law or the Insurance Department to do business in this Commonwealth, if the following conditions are met:

(1) The certificate of insurance includes the name of the insurance company, policy number, insurance amount, type of coverage afforded and exclusions relating to damage arising from the use of pesticides and expiration date of the policy.

(2) The minimum comprehensive general liability insurance provided is $100,000 for each occurrence of bodily injury liability and $100,000 for each occurrence of property damage liability. A policy may be written with combined limits if the limits equal or exceed the sum of the individual limits.

(3) The certificate indicates coverage for completed operations and includes a statement indicating that the coverage applies to pesticide application.

(4) The maximum deductible amount does not exceed $1,000 of the combined policy limits. If a pesticide application business has not satisfied the deductible amount in a prior claim, the policy may not contain a deductible amount.

(5) A current certificate of insurance is forwarded to the Department at each insurance renewal date which sets forth the same information specified in paragraphs (1)—(4).

(b) A pesticide application business desiring to qualify as a self-insurer may submit a written proposal of self-insurance to the Department for approval.

(1) The proposal shall include the following:

(i) A master self-insurance and security agreement.

(ii) A balance sheet and income statement which shall reflect the actual financial condition of the business as of the last complete calendar or fiscal year preceding the date of the proposal. These documents shall be prepared in accordance with generally accepted accounting principles and shall be certified by a certified public accountant.



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(2) A business will not be approved as a self-insurer unless it posts certain collateral with the Department. This paragraph does not apply to government agencies or authorities.

(3) The minimum required security that shall be furnished to the Department is $500,000.

(4) Only the following will be accepted as valid collateral for self-insurance purposes:

(i) United States currency, including United States Treasury bills, United States Treasury notes or other negotiable obligations of the United State Government. United States Savings Bonds are not negotiable.

(ii) Evidence of escrow deposits in Federal or State banks, credit unions or savings and loan associations if Federally insured. Escrow deposits shall be established for the sole purpose of providing security to meet the duties of a self-insurer.

(iii) Irrevocable letters of credit issued by a bank in this Commonwealth or another bank as approved by the Department.

(iv) Surety bonds issued by insurers authorized or eligible to do business in this Commonwealth.

(v) Bonds or other negotiable obligations issued by a state, subdivision or instrumentality of a state in the United States, if not in default as to principal or interest.

(vi) Corporate bonds, issued by an entity other than the proposed self-insurer, rated A or better by Moody's Bond Record, Moody's Investors Service, Inc.

(vii) Other security approved upon petition to the Department.

(5) The Department will hold the collateral furnished for the benefit of the persons to whom the self-insurer is obligated.

(i) The self-insurer shall pay for obligations incurred under the act by assets readily reduced to liquid assets, such as demand deposits, time deposits, negotiable instruments and other assets which may be readily reduced to liquid form.

(ii) If the self-insurer is not able to discharge its obligations, the self-insurer may petition the Department to release the collateral posted as is necessary to satisfy the obligations of the self-insurer.

(iii) If withdrawals from collateral are required, the self-insurer shall replace the security within 72 hours from the date of withdrawal, to retain its certificate as a self-insurer.

(6) A self-insurer shall annually furnish to the Department a report of claims incurred during the preceding calendar year.

(7) Upon approval by the Department of a self-insurance proposal, a self-insurance certificate will be issued to the self-insurer. The certificate shall be renewed annually, after review that the Department deems appropriate.

(c) If the evidence of financial responsibility furnished by a pesticide application business no longer complies with this section, the business shall immediately provide other evidence of financial responsibility which complies with this section. If it fails to do so, the Secretary may revoke its license.

**Cross References**

This section cited in 7 Pa. Code § 130d.26 (relating to financial responsibility).

## § 128.35. Recordkeeping.

(a) A pesticide application business shall keep for every application of a pesticide a record containing the following information:

(1) The date of application. For a pesticide requiring a reentry time, the date of application shall include the hour completed.

(2) The name and address of the customer and the address and location of the application site if different from the address of the customer.

(3) The brand name and formulation of the pesticides used.

(4) The amount of every pesticide used.

(5) The dosage or rate of every pesticide used.

(6) The name and the certificate or technician's registration number, whichever is applicable, of each person making or supervising the application.

(7) The EPA product registration number.

(8) The identification of the application site, including the specific field or land area and the crop and size of the area treated for pesticides used in the production of an agricultural commodity.

(b) When a restricted use pesticide is used in the production of an agricultural commodity, a copy of the record required under this section shall be provided by the application business to the customer within 30 days of the pesticide application.

(c) A record required to be kept under this section shall be maintained for at least 3 years and shall be made immediately available to the Department upon request or to medical personnel in an emergency.

**Source**

The provisions of this § 128.35 amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5945. Immediately preceding text appears at serial pages (144308) to (144309).

**Cross References**

This section cited in 7 Pa. Code § 130d.4 (relating to retained recordkeeping).

### COMMERCIAL AND PUBLIC APPLICATIONS

## § 128.41. Requirements for certification.

(a) A person is deemed to be a commercial or public applicator and required to be certified if one or more of the following criteria are met:

(1) A person, whether or not he is a private applicator with respect to some uses, who applies or supervises the application of a pesticide on the property or premises of another, including an easement.



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(2) A person who applies or supervises the use of a restricted use pesticide on property owned by him or his employer when not applied for the purpose of producing an agricultural product.

(3) A person who applies or supervises the application of a pesticide to the following locations or who is involved in the following types of application:

(i) *Fumigation*—Includes a person who uses fumigants except a person who meets the definition of a private applicator.

(ii) *Golf courses*—Includes a person who uses pesticides in the establishment and maintenance of a golf course.

(iii) *Public and private parks*—Includes a person who uses a pesticide in a recreational or campground area of a public or private park.

(iv) *Educational and research institutions*—Includes a person employed by a public or private educational and research facility that uses pesticides in its educational or research programs.

(v) *Playgrounds and athletic fields*—Includes a person who applies a pesticide to a public playground or an athletic field.

(vi) *Apartment dwellings*—Includes an owner of an apartment building or an employe of an owner who applies a pesticide other than a disinfectant to an apartment structure of four or more units. Commercial certification is not required if the owner or employe resides in the apartment structure and applies general use pesticides to the unit in which he resides.

(vii) *Schools*—Includes a person who uses a pesticide on school property, except for the use of disinfectants and sanitizers within the school building.

(viii) *Swimming pools*—Includes a person who uses a pesticide in the care and maintenance of swimming pools or water recreation facilities associated with a public or private park, excluding lakes, ponds, rivers or streams.

(b) The following are exceptions to subsection (a)(3)(viii):

(1) Disinfectants and sanitizers not used for water treatment.

(2) The use of general use pesticides by an owner or resident in the care and maintenance of a swimming pool at a private single-family residence.

**Source**

The provisions of this § 128.41 amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5945. Immediately preceding text appears at serial pages (144309) to (144310).

## § 128.42. Categories of commercial and public applicators.

A commercial or public applicator applying or supervising the application of a pesticide shall be certified in one or more of the following applicator categories:

(1) *Agronomic crops*—The use of a pesticide in the production of an agricultural crop, including tobacco, grain, soybeans and forages and the application of a pesticide to noncrop agricultural land.

(2) *Fruits and nuts*—The use of a pesticide in the production of tree fruits, nuts and berries.

(3) *Vegetable crops*—The use of a pesticide in the production of vegetables, including, tomatoes, cabbage and celery.

(4) *Agricultural animals*—The use of a pesticide on animals, including beef cattle, dairy cattle, swine, sheep, horses, goats, poultry or other livestock and to premises where these animals are confined.

(5) *Forest pest control*—The use of a pesticide in a forest, forest nursery or forest seed producing area.

(6) *Ornamental and shade trees*—The use of a pesticide in the maintenance of an ornamental tree, shrub, flower or other ornamental.

(7) *Lawn and turf*—The use of a pesticide in the maintenance or production of lawn and turf.

(8) *Seed treatment*—The use of a pesticide on seed.

(9) *Aquatic pest control*—The use of a pesticide on standing or running water, excluding the use of a pesticide in a public health-related activity described in paragraph (16).

(10) *Right-of-way*—The use of a pesticide to maintain a public road, an electrical power line, a pipeline, a railway right-of-way or a similar type of area.

(11) *Household and health related*—The use of a pesticide in, on or around a food handling establishment, a human or nonagricultural animal dwelling, an institution such as a school or hospital, an industrial establishment, a warehouse, a grain elevator and other types of structures whether public or private. The application of a pesticide to protect a stored, processed or manufactured product is also included. The use of a fumigant, except where applied out-of-doors to a rodent burrow which does not lead into a dwelling or other structure, and except in the case of termite or other structural pest control is included. The treatment of an emergence crevice, an ant runway or a surface to control carpenter bees or the surface application of a pesticide to a wooden box, furniture or lumber is included.

(12) *Wood destroying pests*—The use of a pesticide to control or prevent termites, powder post beetles or other wood destroying pests infesting a residence, school, hospital, store, warehouse or other structures or structural components and an area adjacent to those structures.

(13) *Structural fumigation*—The use of a fumigant in or to a structure for the control of pests affecting the structure or its fixtures or inhabitants.

(14) *Industrial weeds*—The use of a pesticide to control vegetation around a structure, such as an oil tank, an industrial railway siding, an airport runway, a parking lot, a fence or an industrial building.

(15) *Public health vertebrate pest control*—The use of a pesticide to manage and control a vertebrate pest affecting public health.

(16) *Public health invertebrate pest control*—The use of a pesticide to manage and control an invertebrate pest affecting public health.



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(17) *Regulatory pest control*—The use of a pesticide to control an organism designated by the Commonwealth or the Federal government to be a pest requiring regulatory restrictions or control procedures to protect man or the environment.

(18) *Demonstration and research pest control*—The use of a pesticide to demonstrate to the public the proper method of application for a pesticide and the use of a pesticide in research such as that undertaken by an extension specialist, county agent or vocational agriculture teacher.

(19) *Wood preservation*—The use of a pesticide in wood impregnation to control or prevent fungi, insects, bacteria, marine borers and other wood destroying pests and includes pole treating or restoration and the use of a fumigant for in-place treatment of utility poles.

(20) *Commodity and space fumigation*—The use of a fumigant in or to a structure, trailer, railcar, onboard ship, or in any type of fumigation chamber, such as under a tarpaulin for the control of pests in stored or in-transit commodities.

(21) *Soil fumigation*—The application of a fumigant to a soil environment.

(22) *Interior plantscape*—The use of a pesticide to control plant pests when the soil or plant to be treated is located within an enclosed structure.

(23) *Park or school pest control*—The use of a pesticide in a campground or recreational area of a public or private park or on school property.

(24) *Swimming pools*—The use of a pesticide in the care and maintenance of swimming pools.

(25) *Aerial applicator*—The use of a pesticide applied by aircraft to any crop or land area. Applicators in this category shall comply with § 128.83 (relating to ornamental or turf application) when making ornamental or turf applications.

**Source**

The provisions of this § 128.42 amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5945. Immediately preceding text appears at serial pages (144310) to (144312).

**Cross References**

This section cited in 7 Pa. Code § 128.23 (relating to categories of pest management consultant); 7 Pa. Code § 128.43 (relating to determination of competence); and 7 Pa. Code § 128.44 (relating to eligibility).

## § 128.43. Determination of competence.

(a) For each of the categories listed in § 128.42 (relating to categories of commercial and public applicators), competence in the use and handling of pesticides shall be determined on the basis of a written examination. The examination will include the following:

(1) Areas of knowledge and competence set forth at section 16.1 of the act (3 P. S. § 111.36a).

(2) Safety.

(3) Labeling and label comprehension.

(b) An examination for certification will consist of two parts:

(1) One part of the examination, the core area, will be based on general information required of commercial and public applicators.

(2) The second part of the examination will be based on information related to the specific categories of commercial and public applicators.

(c) An examination shall be proctored. A person may use approved reference sources during an examination. Successful completion of the core area, and successful completion of part two of the examination in a specific category will entitle a person to certification in that category. A person desiring certification for additional categories will be required to be examined for each additional category. An opportunity will be provided to retake an examination when a passing grade has not been achieved.

(d) If a person successfully completes only one part of the two-part examination, successful completion of the remaining part of the examination shall be obtained within 180-calendar days from the date the initial part of the examination was successfully completed.

(e) An application to take an examination shall be filed along with the appropriate fee with the Department within 10-working days prior to the date of the examination.

(f) A person may not use a reference source during an examination unless approved by the Department or its designated agents.

**Source**

The provisions of this § 128.43 amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5945. Immediately preceding text appears at serial pages (144312) to (144313).

**Cross References**

This section cited in 7 Pa. Code § 128.44 (relating to eligibility).

## § 128.44. Eligibility.

(a) A person is eligible for certification upon fulfilling the requirements under §§ 128.41—128.43 (relating to requirements for certification; categories of commercial and public applicators; and determination of competence). In addition to the requirements for a commercial applicator's certification, an aerial applicator shall have a current commercial agricultural aircraft operator's certificate issued by the Federal Aviation Administration under 14 CFR 137.19(a) (relating to certification requirements).

(b) Within 12 months of becoming eligible to be certified as a commercial applicator, a person shall file with the Department an application for certification. A person who fails to file an application within this 12-month period will lose certification eligibility and shall again establish eligibility in accordance with



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§§ 128.41—128.43. An application for initial certification will be accepted from an eligible person throughout the year. A certificate shall expire on September 30 following the date of application, except that the Department may issue a certificate for an additional year when an application is initially filed during the last 2 months of the certification year.

(c) Once a certification has expired, no further use of pesticides as allowed by the certification will be permitted. Eligibility for certification shall remain under subsection (b).

(d) If a person allows his certification to expire in the triennial year in which recertification credits are due, recertification shall require completion of delinquent recertification credits as described in § 128.45 (relating to recertification) and satisfaction of the requirements for eligibility of subsection (b).

(e) If a person fails to complete delinquent recertification credits within 1 year from the triennial certification expiration date, the person is required to meet the requirements of §§ 128.3, 128.43 and 128.44 (relating to fees; determination of competence; and eligibility).

**Source**

The provisions of this § 128.44 amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5945. Immediately preceding text appears at serial page (144313).

## § 128.45. Recertification.

(a) At intervals of 3 years, a certified commercial or public applicator shall provide evidence of having received current update training in technology relating to pesticides in the specific categories in which he is certified to maintain certification. Training will be divided into core and category specific areas as follows:

(1) *Core.*

(i) Safety and health.

(ii) Labeling and label comprehension.

(iii) Environmental protection.

(iv) Equipment use, calibration and dosage calculations.

(v) Protective clothing and respirator equipment.

(vi) Cleaning and maintaining equipment.

(vii) Transportation, storage and disposal.

(viii) Applicable State and Federal laws.

(2) *Category specific.*

(i) Identification of pests.

(ii) Appropriate control measures.

(iii) Integrated pest management.

(b) Recertification credits will be given on the basis of attendance at meetings or other appropriate training approved by the Department. Training will be evaluated by the Department and assigned credits. A person is required to meet

the credit requirements in the ''Pennsylvania State Plan for Certification of Pesticide Applicators.'' This plan has been filed with and approved by the EPA in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C.A. §§ 136—136y). Records of training will be maintained by the Department and a yearly statement will be sent to each certified commercial or public applicator describing credits obtained and credits due to meet recertification standards.

(c) Training will be approved based on the following criteria:

(1) Training shall be conducted or sponsored by an educational institution, an individual, an association, a business or a governmental agency.

(2) Training shall be approved for recertification credits at the rate of 1 credit per 30 minutes of applicable instruction, exclusive of coffee breaks, lunches, visits to exhibits, and the like.

(3) Sponsors of recertification training shall submit a written request for course approval to the Department's regional office for the region in which the meeting will be held. A request to approve out-of-State training shall be submitted to the Department of Agriculture, Bureau of Plant Industry, Agronomic Services Division, 2301 North Cameron Street, Harrisburg, Pennsylvania 17110-9408. A request shall be submitted at least 15 working days prior to the training date.

(4) A request for training approval shall include the following information:

(i) The name and phone number of the contact person who is coordinating the meeting.

(ii) The specific location of the meeting.

(iii) The date of the meeting.

(iv) A listing of the speakers, subject matter and time allotted to each subject.

(v) A statement of whether the meeting is opened to the public and if there is a charge to attend.

(5) Statements made in a request to approve training shall be supported by oath or affirmation or made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

(6) Credits will be assigned to each training meeting based upon the subjects covered and the amount of time expended on each subject.

(7) If an employe of the Department is unable to monitor the training, the meeting coordinator is responsible for authenticating attendance and shall compile an approved list of Pennsylvania certified applicators in attendance. The lists shall be returned to the Department within 10-working days following the meeting date and shall include the name of each individual attending and his applicator's certificate number.

(8) Credits assigned may be modified if either the content or time of the actual meeting differs from the original written request for approval.



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(9) Falsification by a course sponsor of information required under this subsection may result in the withdrawal of course approval.

**Source**

The provisions of this § 128.45 amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5945. Immediately preceding text appears at serial pages (144313) to (144315).

**Cross References**

This section cited in 7 Pa. Code § 128.63 (relating to recertification).

## PESTICIDE APPLICATION TECHNICIANS

### § 128.51. Training program.

(a) A pesticide application technician shall obtain instruction in, and possess adequate knowledge of, the proper use and handling of pesticides. The training program shall include:

(1) Those areas of knowledge described in section 16.2 of the act (3 P. S. § 111.36b).

(2) Spill handling.

(3) Human health and environmental effects.

(b) The technician training program shall include a sufficient level of on-the-job training to allow the technician to competently perform the functions associated with an application of pesticides in which the technician is anticipated to be involved.

(c) A technician is not permitted to make a pesticide application using techniques, pesticides or equipment not included in his training.

(d) A technician shall undergo annual training to assure that his knowledge is adequate for satisfactory completion of his work related duties.

(e) A certified applicator with at least 1 year's experience in the categories in which the technician is to be trained shall be responsible for administering the training program. This person shall develop a training program which includes the appropriate level of training needed by the technician to satisfactorily complete work related duties subject to disapproval by the Department.

**Cross References**

This section cited in 7 Pa. Code § 128.53 (relating to recordkeeping).

### § 128.52. Registration.

(a) A business shall submit to the Department by first class mail, postage prepaid, on a form provided by the Department, a list of persons it intends to register as technicians. The postmarked date will indicate the beginning of a training period to consist of at least 30 days of training.

(b) At the completion of training, the business shall file with the Department an application to register the technician. The application shall be signed by the

certified applicator responsible for administering the training program and the technician verifying satisfactory completion of the training program. The annual registration fee shall be submitted with the application.

(c) A registration expires on February 28 each year.

(d) An application for a new registration will be accepted throughout the calendar year. A full year's registration fee will be required for a portion of a year, except that the Department may issue a registration for an additional year when an application is initially filed during the last 2 months of the registration year.

(e) A pesticide application business shall register a technician annually with the Department and shall submit evidence of training, as required by the Department, in addition to the registration fee.

(f) A technician's registration may not be transferred from one business to another.

**Source**

The provisions of this § 128.52 amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5945. Immediately preceding text appears at serial page (144316).

## § 128.53. Recordkeeping.

(a) A pesticide application business employing a technician shall keep records of training provided to meet the requirements of § 128.51 (relating to training program).

(b) A record required to be kept under this section shall be maintained for at least 3 years and shall be made immediately available to the Department upon request.

**Cross References**

This section cited in 7 Pa. Code § 130d.4 (relating to retained recordkeeping).

## PRIVATE APPLICATORS

## § 128.61. Determination of competence.

(a) Competency in the use and handling of restricted use pesticides by a private applicator will be determined on the basis of a written examination. The examination will include the following:

(1) Areas of knowledge described at section 17.2 of the act (3 P. S. § 111.37b).

(2) Transportation, storage and disposal.

(b) An opportunity will be provided to retake an examination if a passing grade has not been achieved.

**Cross References**

This section cited in 7 Pa. Code § 128.62 (relating to eligibility); 7 Pa. Code § 128.63 (relating to recertification); and 7 Pa. Code § 128.64 (relating to fumigation by a private applicator).



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## § 128.62. Eligibility.

(a) A private applicator will be eligible for a permit upon fulfilling the requirements of § 128.61 (relating to determination of competence) and subsection (b).

(b) Within 1 year of fulfilling the requirements of § 128.61, a private applicator shall file with the Department an application for a permit accompanied by the appropriate fee. A person who fails to file within this 1 year period shall again establish eligibility under § 128.61.

(c) A private applicator will be issued a numbered permit which shall be used by the applicator when purchasing a restricted use pesticide.

**Cross References**

This section cited in 7 Pa. Code § 128.63 (relating to recertification).

## § 128.63. Recertification.

(a) At intervals of 3 years, a private applicator shall have accumulated credits as a result of having received update training approved by the Department in technology relating to the proper and safe use of pesticides to continue as a permitted private pesticide applicator. Training will be divided into core and category specific areas as specified in § 128.45(a) (relating to recertification).

(b) Recertification credits will be given on the basis of attendance at meetings or other appropriate training approved by the Department. Training will be evaluated by the Department and assigned credits. A person is required to meet the credit requirements in the *Pennsylvania State Plan for Certification of Pesticide Applicators*. This plan has been filed with and approved by the EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C.A. §§ 136—136y). Records of training will be maintained by the Department and a yearly statement will be sent to each private applicator describing credits obtained and credits due to meet recertification standards. Training will be approved under § 128.45(c).

(c) If a private applicator fails to renew his permit by the date of expiration, renewal requires the following:

(1) Completion of due recertification credits as described in subsections (a) and (b).

(2) Completion of the examination requirements as described in §§ 128.3, 128.61 and 128.62 (relating to fees; determination of competence; and eligibility) by the applicator if the due recertification credits are not completed within 1 year from the expiration date of the permit.

**Cross References**

This section cited in 7 Pa. Code § 128.64 (relating to fumigation by a private applicator).

## § 128.64. Fumigation by a private applicator.

(a) In addition to the requirements in § 128.61 (relating to determination of competence), a private applicator using structural, commodity and space, or soil fumigants shall demonstrate competence in the proper and safe use of these pesticides. Competency shall be demonstrated by passing a written examination specifically relating to each type of fumigant the applicator intends to use.

(b) A special permit will be issued, relating to fumigation, and will be valid for a 3-year period. A fee will not be charged for this special permit. A special permit will not be issued for the use of a fumigant unless the applicant has a private applicator's permit.

(c) Recertification requirements shall be met through attendance at approved meetings and shall consist of at least two credits of category specific education relating to the appropriate area of fumigation in which the applicator is certified. The credits obtained by a private applicator to meet the requirements of this subsection may also be used to meet the requirements of § 128.63 (relating to recertification).

## § 128.65. Recordkeeping.

(a) A private applicator shall keep for each application of a restricted use pesticide a record containing the following information:

(1) The date of application. For a pesticide requiring a reentry time, the date of application shall include the hour completed.

(2) The place of application including the name and address of the farm and the specific field or land area and the crop treated.

(3) The brand name and formulation of every pesticide used.

(4) The amount of every pesticide used.

(5) The dosage or rate of every pesticide used.

(6) The names and, when applicable, the permit numbers of the persons making or supervising the application.

(7) The EPA product registration number.

(8) The size of the area treated.

(b) A record required to be kept under this section shall be maintained for at least 3 years and shall be made immediately available to the Department upon request or immediately available to medical personnel in an emergency.

**Source**

The provisions of this § 128.65 amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5924. Immediately preceding text appears at serial pages (144318) to (144319).

**Cross References**

This section cited in 7 Pa. Code § 130d.4 (relating to retained recordkeeping).



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**RECIPROCITY**

## § 128.71. General.

A person who is not a resident of this Commonwealth, but who has a valid license, certificate or permit from another state, may obtain an appropriate Pennsylvania license, certificate or permit if the state in which he is licensed has a reciprocal agreement with the Commonwealth under section 22 of the act (3 P. S. § 111.42). A license, certificate or permit shall be issued under this section only for the initial period of issuance.

**Cross References**

This section cited in 7 Pa. Code § 128.72 (relating to procedure).

## § 128.72. Procedure.

A person desiring a license under § 128.71 (relating to general) shall submit to the Department a properly completed application, the appropriate fee and evidence of financial responsibility as required along with a copy of the person's current license, certificate or permit.

**Subchapter C. PRIOR NOTIFICATION**

Sec.
128.81. Right-of-way application.
128.82. Nonagricultural specific site application.
128.83. Ornamental or turf application.
128.84. Nonagricultural area-wide application.
128.85. Agricultural application.
128.86. Constructive notification.
128.87. Prior notification by certified mail.
128.88. Recordkeeping.
128.89. Notification request.

## § 128.81. Right-of-way application.

(a) *Prior notification required.* A commercial/public applicator may not apply a restricted use pesticide to a right-of-way without first giving prior notification in the form of a notice published in two newspapers of general circulation in the affected area.

(b) *Alternative form of notification.* In lieu of the notification requirements described in subsection (a), an applicator may give prior notification orally or by certified mail to every person residing in a dwelling on land contiguous to the restricted use pesticide application site. This subsection does not apply to an aerial application of a restricted use pesticide.

(c) *Additional information.*

(1) At least 7 days prior to the proposed application date, a person residing in a dwelling on land contiguous to the application site may request additional information from the person designated to receive requests for additional information. Upon the request, the applicator shall provide the following additional information at least 12 hours prior to the time of application:

(i) The proposed date and time of the application.

(ii) The brand name of every restricted use pesticide to be applied including the EPA registration number.

(2) Upon request, the designated person shall, within 10 days of receiving a request under this subsection, provide a copy of the label for every restricted use pesticide to be used.

(d) *Exceptions*. The following types of ground application do not require prior notification:

(1) Injections internal to utility poles and trees.

(2) Ground line applications to utility poles.

**Cross References**

This section cited in 7 Pa. Code § 130d.5 (relating to public notice by applicant).

## § 128.82. Nonagricultural specific site application.

(a) *Prior notification required.* A commercial/public applicator may not make a specific site application of a restricted use pesticide without first giving prior notification orally or by certified mail to every person residing in a dwelling on land contiguous to the application site.

(b) *Additional information.*

(1) Upon request made by a person entitled to notice at least 7 days prior to the proposed application date to the person designated to receive requests for additional information, the applicator shall provide the following additional information at least 12 hours prior to the time of application:

(i) The proposed date and time of application.

(ii) The brand name of every restricted use pesticide to be applied including the EPA registration number.

(2) Upon request, the designated person shall within 10 days of receiving a request under this subsection provide a copy of the label for every restricted use pesticide to be used.

(c) *Exceptions.* The following types of application do not require prior notification:

(1) An application of a restricted use pesticide within a detached structure.

(2) An application of a restricted use pesticide where applied directly below the soil surface, except where a well or spring is located within 25 feet of the application site or where a soil fumigant is used.

(3) An application of a restricted use pesticide in a tamper resistant bait tray or placed in a rodent burrow which is inaccessible to children or pets.



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**Cross References**

This section cited in 7 Pa. Code § 130d.5 (relating to public notice by applicant).

## § 128.83. Ornamental or turf application.

(a) *Notification.*

(1) A pesticide business that meets the definitions of category 06 (ornamental and shade trees) or 07 (lawn and turf) of § 128.42 (relating to categories of commercial and public applicators) regarding general use pesticides shall at least 12 hours prior to the time of application provide every person residing in a dwelling on land contiguous to the application site with the following information:

(i) The proposed date and time of application.

(ii) The brand name of every pesticide to be applied including the EPA registration number.

(2) Within 10 days of receiving a request, the pesticide application business shall provide a copy of the label for every pesticide to be used.

(b) *Exceptions.* A person is not entitled to notification under subsection (a) unless the person makes a written request at least 7 days prior to the proposed date of application.

(c) *Premises sharing mutual border.* The request described in subsection (b) shall list by street address premises which share a mutual border with the premises owned by the person making the request.

**Source**

The provisions of this § 128.83 amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5924. Immediately preceding text appears at serial page (144321).

**Cross References**

This section cited in 7 Pa. Code § 128.112 (relating to notification of hypersensitive individuals); and 7 Pa. Code § 130d.5 (relating to public notice by applicant).

## § 128.84. Nonagricultural area-wide application.

(a) *Prior notification required.* A commercial/public applicator may not make an area-wide application of a restricted use pesticide without first giving prior notification in the form of a notice published in two newspapers of general circulation in the affected area.

(b) *Additional information.*

(1) At least 7 days prior to the proposed application date, a person residing in a dwelling on land contiguous to the application site may request additional information from a person designated to receive requests for additional information. Upon the request, the applicator shall provide the following information at least 12 hours prior to the time of application:

(i) The proposed date and time of application.

(ii) The brand name of every restricted use pesticide to be applied including the EPA registration number.

(2) Within 10 days of receiving a request under this subsection, the designated person shall provide a copy of the label for every restricted use pesticide to be used.

**Cross References**

This section cited in 7 Pa. Code § 130d.5 (relating to public notice by applicant).

## § 128.85. Agricultural application.

(a) *Prior notification required.* A commercial/public applicator may not apply a restricted use pesticide for an agricultural purpose without first giving prior notification in the form of a notice published in two newspapers of general circulation in the affected area.

(b) *Additional information.*

(1) At least 7 days prior to the proposed application date, a person residing in a dwelling on land contiguous to the restricted use pesticide application site may request additional information from a person designated to receive requests for additional information. Upon the request, the applicator shall at least 12 hours prior to the time of application, provide the following additional information:

(i) The proposed date and time of application.

(ii) The brand name of every restricted use pesticide to be applied including the EPA registration number.

(2) Within 10 days of receiving a request under this subsection, the designated person shall provide a copy of the label for every restricted use pesticide to be used.

(3) The person making a request under this subsection shall identify in his request the name and address of every person operating agricultural land which shares a common border with property owned by the person making the request.

(c) *Use of placards.* In lieu of requirements contained in subsections (a) and (b), an applicator may give prior notification orally or by certified mail to every person residing in a dwelling on land contiguous to the restricted use pesticide application site or may post placards around the application site at least 18 hours prior to the time of application. If the applicator uses placards, the placards shall contain the information required by this section for prior notification.

(d) *Exceptions.* An application of a restricted use pesticide does not require prior notification where applied directly below the soil surface, except where a well or spring is located within 25 feet of the application site or a soil fumigant is used.



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**Cross References**

This section cited in 7 Pa. Code § 130d.5 (relating to public notice by applicant).

## § 128.86. Constructive notification.

A person shall be deemed to have received notification under this subchapter if an adult residing in the same dwelling is so notified.

**Cross References**

This section cited in 7 Pa. Code § 130d.5 (relating to public notice by applicant).

## § 128.87. Prior notification by certified mail.

If this subchapter authorizes an applicator to give prior notification by certified mail, the prior notification shall be effective upon receipt.

**Cross References**

This section cited in 7 Pa. Code § 130d.5 (relating to public notice by applicant).

## § 128.88. Recordkeeping.

(a) The applicator shall keep, for each occasion in which prior notification is required, a record containing the following information:

(1) A copy of the newspaper advertisement or a statement describing other methods of prior notification that this chapter authorizes.

(2) The name and address of every person requesting additional information.

(3) The date and time of individual notification.

(4) A copy of correspondence relating to prior notification.

(b) A record required to be kept under this section shall be maintained for at least 3 years and shall be made immediately available to the Department upon request.

**Cross References**

This section cited in 7 Pa. Code § 130d.4 (relating to retained recordkeeping); and 7 Pa. Code § 130d.5 (relating to public notice by applicant).

## § 128.89. Notification request.

A request for notification made under this subchapter shall expire on December 31 in the year in which it is made.

**Cross References**

This section cited in 7 Pa. Code § 130d.5 (relating to public notice by applicant).

## Subchapter D. REGISTRATION OF PESTICIDES

Sec.
128.91. EPA registration required.
128.92. Special local need registration.

### § 128.91. EPA registration required.

Only a pesticide with an approved EPA registration will be accepted for registration by the Department.

### § 128.92. Special local need registration.

(a) Special local need registrations are subject to approval by the Department for pesticides currently registered for use in this Commonwealth. A special local need label shall conform with 40 CFR 162.153(e) (relating to state registration procedures).

(b) A copy of the proposed special local need use label, supporting data and a statement verifying the existence of a special local need shall be submitted with the completed form provided by the Department for special local need registration.

(c) A pesticide registered under this section may be cancelled by the Department or by the EPA.

## Subchapter E. MISCELLANEOUS

Sec.
128.101. Reporting of pesticide accidents.
128.102. Protected designated areas.
128.103. Handling, transportation, storage, use and disposal of pesticides.
128.104. Experimental use permits.
128.105. Additional responsibilities of certified applicators.
128.106. Additional responsibilities within school buildings.

### § 128.101. Reporting of pesticide accidents.

(a) The Secretary has designated the Department as the State agency to which significant pesticide accidents or incidents shall be reported.

(b) An applicator, a pesticide application technician or another person who has knowledge of a significant pesticide accident or incident shall report it to the Department.

(c) As used in this section, the term ''significant pesticide accident or incident'' means an accident or incident involving a pesticide which creates a danger to human beings or results in damage to plant or animal life.

(d) This section does not supersede the reporting procedures of other statutes or the regulations promulgated thereunder.



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**§ 128.102. Protected designated areas.**

(a) An application of a restricted use pesticide within 100 feet of certain publicly-owned or designated lands will not be permitted unless a waiver is granted by the Secretary. Lands affected by this restriction include:

(1) State forest land designated ''Natural Areas and Wild Areas.''

(2) Areas containing endangered or rare organisms. These organisms are identified at 17 Pa. Code Chapter 45 (relating to conservation of Pennsylvania native wild plants); and 58 Pa. Code Chapters 75 and 133 (relating to endangered species; and wildlife classification).

(b) A person may file a request with the Secretary for a waiver of the prohibition contained in subsection (a). The request will contain the following information:

(1) A general statement relating to the purpose and need for the pesticide application.

(2) Specific evaluation of possible detrimental effects on water quality, air quality, groundwater, public health and safety, nontarget plants and animals, habitat diversity and interspersion and biological productivity.

(3) Specific evaluation of expected benefits.

(4) Additional information which may be requested by the Secretary.

(c) A request for a waiver shall be submitted at least 90 days prior to the proposed date of pesticide application.

**§ 128.103. Handling, transportation, storage, use and disposal of pesticides.**

(a) A person may not use, handle, transport, store, display or distribute a pesticide in a manner that endangers man or his environment or contaminates food, feed, feed supplements, medications, fertilizers, seed or other products that may be handled, transported, stored, displayed or distributed with the pesticides.

(b) A person may not use, or cause to be used, a pesticide inconsistent with its labeling. A pesticide label containing an advisory instruction concerning the use of the pesticide being an environmental hazard shall be considered by the Secretary as a further restriction on the pesticide's use.

(c) An application of a pesticide may not be made where weather conditions are such that it can be expected that the pesticide will move off of the proposed application site.

(d) A person may not dispose of, store or receive for disposal or storage a pesticide, pesticide container or pesticide container residue in a manner that does one or more of the following:

(1) Is inconsistent with its label or labeling.

(2) Causes or allows the open dumping of pesticides or pesticide containers. Open burning by the owner of small quantities of combustible containers that do not exceed 50 pounds is exempt if the pesticide residue does not con-

tain organic mercury, chlorates, lead, cadmium or arsenic compounds and the Commonwealth or local regulations permit the burning. When the burning takes place, regard shall be given to wind direction in relation to the protection of crops, animals and people from pesticide vapors created through burning.

(3) Causes or allows dumping of pesticides in a stream, river, pond, sewer or lake, except in conformance with permits issued jointly by the Department of Environmental Protection and the Fish and Boat Commission, or other Commonwealth agencies having jurisdiction regarding water pollution.

(4) Violates an applicable State or Federal pollution control standard.

(e) A person shall dispose and store pesticides, pesticide containers and pesticide container residue in accordance with acts and regulations administered by the EPA and the Department of Environmental Protection.

(f) A person may not directly apply pesticides to the property of another without first obtaining permission of the owner, or occupant having care, custody or control of the property to do so, except in the case of easements or right-of-ways or when done under the direction of a governmental entity to protect the health and welfare of the public.

(g) A person may not use a pesticide in a manner which results in unwanted residues on the property of another, except in the case of easements or right-of-ways or when done under the direction of a governmental entity to protect the health and welfare of the public.

(h) A person may not apply a pesticide unless it has been registered by the Department or it is used under the provisions of an experimental use permit or research conducted under an exemption from an experimental use permit.

(i) A person may not store, transport or otherwise possess a pesticide in a service container unless the service container is legibly marked to indicate the name and percentage of active ingredients and is accompanied by a readily available copy of the registered label that represents the pesticides contained therein. The following exceptions apply:

(1) Service containers containing pesticide end-use dilutions when the containers are used as application devices.

(2) Service containers containing pesticide end-use dilutions which are required by other regulations to have pesticide label information accompany them.

(3) Service containers containing pesticide end-use dilutions when the containers are used as nurse tanks (with a capacity greater than 55 gallons) in the production of an agricultural commodity.

(j) A person may not place or keep a pesticide in a container which has been labeled for food or drink.

**Source**

The provisions of this § 128.103 amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5924. Immediately preceding text appears at serial pages (169377) to (169378).



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### § 128.104. Experimental use permits.

The Department shall be notified prior to the use in this Commonwealth of a pesticide with an approved EPA experimental use permit. Notification shall include copies of the EPA approval letter, a properly completed product label as defined in 40 CFR 172.6 (relating to labeling) and a list of the participants and cooperators involved in the program.

### § 128.105. Additional responsibilities of certified applicators.

(a) A certified applicator is responsible for the actions of persons acting under his supervision and shall instruct the persons in the method of application for the pesticides that will be applied.

(b) A certified applicator shall be present at the application site on a routine basis to evaluate the work performance of those working under his supervision. The amount of time that a certified applicator spends at the application site shall be based upon the competence and experience of the person being supervised.

(c) A certified applicator shall be physically present at the application site if the label for the pesticides being applied so requires.

### § 128.106. Additional responsibilities within school buildings.

A pesticide other than a disinfectant or sanitizer may not be applied in a common access area within a school building when students are expected to be in the common access area for normal academic instruction or organized extracurricular activities within 7 hours following the application. The applicator shall also comply with reentry time restrictions contained on the pesticide label, whichever is greater.

**Source**

The provisions of this § 128.106 amended December 22, 1995, effective December 23, 1995, 25 Pa.B. 5924.

## Subchapter F. PESTICIDE HYPERSENSITIVITY REGISTRY

Sec.
128.111. Registry.
128.112. Notification of hypersensitive individuals.

**Source**

The provisions of this Subchapter F adopted December 22, 1995, effective December 23, 1995, 25 Pa.B. 5924, unless otherwise note.

## § 128.111. Registry.

(a) The Department will maintain a list of individuals who have been verified as being hypersensitive to pesticides. The list will be referred to as the Pesticide Hypersensitivity Registry.

(b) Individuals who want to be included on the registry shall have their hypersensitivity to pesticides verified by a physician, and are solely responsible for providing written verification to the Department.

(c) A pesticide-hypersensitive individual who wants to be on the registry shall provide to the Department his name and primary residence including street address, city, state, zip code, county, daytime telephone number and nighttime telephone number. Each individual shall also provide an alternate telephone number where notification information can be conveyed. Individuals may also provide secondary locations, addresses and associated telephone numbers to be maintained as part of their listing. An individual submitting a request for listing less than 2 months preceding the effective date, as described in subsection (e), may not be included on the current registry with that effective date, but will be included in the next registry.

(d) To remain on the registry, an individual shall notify the Department annually during the month of January of the individual's intent to remain on the registry for the next 12 months. Medical verification will not be required for this renewal.

(e) The Department will mail the current registry to each licensed commercial and public pesticide application business on or before the effective dates of March 1, June 1, September 1 and December 1 of each year. An individual will not be considered officially included on the registry unless his name appears on the current registry.

## § 128.112. Notification of hypersensitive individuals.

(a) *General.* Prior to a pesticide application being made by a commercial or public pesticide application business the following conditions shall be met:

(1) Each individual listed on the current registry whose primary residence or secondary locations property line is within 500 feet of the application site shall be notified of the pesticide application.

(2) Notification shall consist of providing the following information to the individual on the registry:

(i) Date, location (application site), earliest possible start time and latest possible finish time of application. The range between start and finish times may be no greater than 24 hours.

(ii) Brand name, EPA number and active ingredient common name (if on the label) of the pesticide products which may be used.

(iii) The name, telephone number and pesticide business license number of the pesticide application business.



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(iv) A copy of the label for every pesticide used within 10 days of a request.

(3) Notification shall be made between 12 hours and 72 hours prior to the pesticide application.

(4) Notification shall be made by telephone, personal contact or certified mail.

(i) Notification requirements are met if the information is placed on a telephone answering device activated by calling the registrant's telephone number, or if the information is given to an adult contacted by dialing the daytime, nighttime or alternate telephone number.

(ii) If notification cannot be made after at least two telephone contact attempts, notification may be made by placing the written notification information on the front door of the listed residence or location.

(iii) A record shall be kept of every telephone contact and contact attempt made under this paragraph.

(b) *Exceptions.* The following types of application do not require notification under this section:

(1) An application of a pesticide within a single family residential detached structure.

(2) An application of a pesticide directly below the soil surface.

(3) An application of a pesticide in a tamper-resistant bait station.

(4) An application of a pesticide to a tree by means of injection. Prior notification requirements contained in § 128.83 (relating to ornamental or turf application) remain applicable.

(5) An application of a disinfectant or sanitizer.

(c) *Recordkeeping.* A record of the notification information required under this section, including the time and method of notification, shall be maintained for at least 3 years and shall be made immediately available to the Department upon request or to medical personnel in an emergency.

**Cross References**

This section cited in 7 Pa. Code § 130d.5 (relating to public notice by applicant).

[Next page is 128a-1.]



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# CHAPTER 92. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMITTING, MONITORING AND COMPLIANCE

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## GENERAL PERMITS

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**Authority**

The provisions of this Chapter 92 issued under section 5 of The Clean Streams Law (35 P. S. § 691.5), unless otherwise noted.

**Source**

The provisions of this Chapter 92 adopted August 4, 1978, 8 Pa.B. 2157, unless otherwise noted.

**Cross References**

This chapter cited in 25 Pa. Code § 16.22 (relating to criteria development); 25 Pa. Code § 77.532 (relating to surface water and groundwater monitoring); 25 Pa. Code § 78.60 (relating to discharge requirements); 25 Pa. Code § 86.6 (relating to extraction of coal incidental to government-financed construction or government-financed reclamation projects); 25 Pa. Code § 87.102 (relating to hydrologic balance: effluent standards); 25 Pa. Code § 87.117 (relating to hydrologic balance: surface water monitoring); 25 Pa. Code § 88.92 (relating to hydrologic balance: effluent standards); 25 Pa. Code § 88.106 (relating to hydrologic balance: surface water monitoring); 25 Pa. Code § 88.187 (relating to hydrologic balance: effluent standards); 25 Pa. Code § 88.202 (relating to hydrologic balance: surface water monitoring); 25 Pa. Code § 88.292 (relating to hydrologic balance: effluent standards); 25 Pa. Code § 88.306 (relating to hydrologic balance: surface water monitoring); 25 Pa. Code § 89.52 (relating to water quality standards, effluent limitations and best management practices); 25 Pa. Code § 89.59 (relating to surface water and groundwater monitoring); 25 Pa. Code § 90.102 (relating to hydrologic balance: water quality standards, effluent limitations and best management practices); 25 Pa. Code § 90.116 (relating to hydrologic balance: surface water monitoring); 25 Pa. Code § 91.27 (relating to general water quality management permit); 25 Pa. Code § 91.52 (relating to procedural requirements for underground disposal); 25 Pa. Code § 93.4c (relating to implementation of antidegradation requirements); 25 Pa. Code § 94.1 (relating to definitions); 25 Pa. Code § 96.4 (relating to TMDLs and WQBELs); 25 Pa. Code § 102.5 (relating to permit requirements); 25 Pa. Code § 102.6 (relating to permit applications and fees); 25 Pa. Code § 250.1 (relating to definitions); 25 Pa. Code § 250.309 (relating to MSCs for surface water); 25 Pa. Code § 250.406 (relating to relationship to surface water quality requirements); 25 Pa. Code § 271.821 (relating to application for general permit); 25 Pa. Code § 271.902 (relating to permits and direct enforceability); 25 Pa. Code § 271.907 (relating to special definitions); 25 Pa. Code § 271.915 (relating to management practices); 25 Pa. Code § 299.141 (relating to scope); 25 Pa. Code § 961.8 (relating to ineligible costs); and 25 Pa. Code § 963.12 (relating to ineligible costs).

## GENERAL PROVISIONS

### § 92.1. Definitions.

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

*AEU—Animal equivalent unit*—One thousand pounds live weight of livestock or poultry animals, regardless of the actual number of individual animals comprising the unit, as defined in section 3 of the Nutrient Management Act (3 P. S. § 1703).

*Administrator*—The Administrator of the EPA.

*Agricultural operation*—The management and use of farming resources for the production of crops, livestock or poultry as defined in section 3 of the Nutrient Management Act.

*Agricultural process wastewater*—Wastewater from agricultural operations, including from spillage or overflow from livestock or poultry watering systems; washing, cleaning or flushing pens, milkhouses, barns, manure pits; direct contact swimming, washing or spray cooling of livestock or poultry; egg washing; or dust control.

*Applicable effluent limitations or standards*—State, interstate and Federal effluent limitations or standards to which a discharge is subject under the State and Federal Acts, including, but not limited to, water quality-based and technology-based effluent limitations, standards of performance, toxic effluent standards and prohibitions, BMPs and pretreatment standards.

*Applicable water quality standards*—Water quality standards to which a discharge is subject under the State and Federal Acts, and regulations promulgated thereunder.

*Application*—The Department's form for applying for approval to discharge pollutants to surface waters of this Commonwealth under a new NPDES permit, or renewal or reissuance of an existing NPDES permit, or the modification, revision or transfer of an existing NPDES permit.

*BAT—Best available technology*—

(i) The maximum degree of effluent reduction attainable through the application of the best treatment technology economically achievable within an industrial category or subcategory, or other category of discharger, taking into account:

(A) The age of equipment and facilities involved.

(B) The process employed.

(C) The engineering aspects of the application of various types of control techniques and process changes (including in-plant source reduction measures in addition to end of pipe controls).

(D) The cost of achieving the effluent reduction.

(E) Nonwater quality environmental impacts (including energy requirements).

(F) Other factors the Department deems appropriate.

(ii) The term includes categorical ELGs promulgated by the EPA under section 304(b) of the Federal Act (33 U.S.C.A. § 1314(b)).

*BMP—Best management practices*—



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(i) Schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce pollution to surface waters of this Commonwealth.

(ii) The term includes:

(A) Treatment requirements.

(B) Operating procedures.

(C) Practices to control plant site runoff, spillage, or leaks, sludge or waste disposal, or drainage from raw material storage.

*CAFO—Concentrated animal feeding operation*—A CAO with greater than 300 AEUs, any agricultural operation with greater than 1,000 AEUs, or any agricultural operation defined as a large CAFO under 40 CFR 122.23 (relating to concentrated animal feeding operations).

*CAO—Concentrated animal operation*—An agricultural operation that meets the criteria established by the State Conservation Commission in regulations under the authority of 3 Pa.C.S. Chapter 5 (relating to nutrient management and odor management) in Chapter 83, Subchapter D (relating to nutrient management).

*CCW—Contact cooling water*—Cooling water that comes into contact with any raw material, intermediate product, finished product, byproduct or waste product.

*CSO—Combined sewer overflow*—Any intermittent overflow or other untreated discharge from a municipal combined sewer system (including domestic, industrial and commercial wastewater and stormwater) prior to reaching the headworks of the sewage treatment facility which results from a flow in excess of the dry weather carrying capacity of the system.

*Combined sewer system*—A sewer system which has been designed to serve as both a sanitary sewer and a storm sewer.

*Concentrated aquatic animal production facility*—A hatchery, fish farm or other facility which meets the criteria in 40 CFR Part 122, Appendix C (relating to criteria for determining a concentrated aquatic animal production facility), or which the Department designates under the criteria in 40 CFR 122.24(c) (relating to concentrated aquatic animal production facilities).

*Conventional pollutant*—Biochemical oxygen demand, carbonaceous biochemical oxygen demand, suspended solids, pH, fecal coliform, oil or grease.

*Daily discharge*—The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably and accurately represents the calendar day for purposes of sampling:

(i) For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day.

(ii) For pollutants with limitations expressed in other units of measurement, daily discharge is calculated as the average measurement of that pollutant during the day.

*Discharge*—An addition of any pollutant to surface waters of this Commonwealth from a point source, including:

(i) Additions of pollutants from surface runoff and stormwater which is collected or channelized.

(ii) Discharges through pipes, sewers or other conveyances which do not lead to a treatment works.

(iii) Discharges through pipes, sewers or other conveyances.

*Draft permit*—A document prepared by the Department indicating the Department's tentative decision to issue or deny, modify, revoke, renew or reissue a permit.

*ELG—Effluent Limitations Guideline*—A regulation published by the Administrator under section 304(b) of the Federal Act (33 U.S.C.A. § 1314(b)), or by the Department, to revise or adopt effluent limitations.

*Effluent Limitation or Standard*—A restriction established by the Department or the Administrator on quantities, rates and concentrations of chemical, physical, biological and other constituents which are discharged from point sources into surface waters, including BMP's and schedules of compliance.

*Existing discharge*—A discharge which is not a new discharge or a new source.

*Facility or activity*—Any NPDES point source or any other facility or activity including land or appurtenances thereto that is subject to regulation under the NPDES Program.

*Federal Act*—The Federal Water Pollution Control Act (33 U.S.C.A. §§ 1251—1376), also known as the Clean Water Act or CWA.

*General NPDES permit* or *general permit*—An NPDES permit that is used for a clearly described category of point source discharges, when those discharges are substantially similar in nature and do not have the potential to cause significant adverse environmental impact.

*Indirect discharger*—A person who discharges sewage, industrial waste or other pollutants into a treatment works.

*Industrial user*—Those industries identified in the Standard Industrial Classification Manual, Office of Management and Budget, 1987, as amended and supplemented, under the category ''Division D-Manufacturing'' and other classes of significant waste producers, as by regulation, the Administrator deems appropriate.

*Industrial waste*—

(i) A liquid, gaseous, radioactive, solid or other substance, not sewage, resulting from manufacturing or industry, or from an establishment, and mine drainage, refuse, silt, coal mine solids, rock, debris, dirt and clay from coal mines, coal collieries, breakers or other coal processing operations.

(ii) The term includes all of these substances whether or not generally characterized as waste.



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*Instantaneous maximum effluent limitation*—The highest allowable discharge of a concentration or mass of a substance at any one time as measured by a grab sample.

*Intermittent stream*—A body of water flowing in a channel or bed composed primarily of substrates associated with flowing water, which, during periods of the year, is below the local water table and obtains its flow from both surface runoff and groundwater discharges.

*Interstate agency*—An agency of two or more states established by or under an agreement or compact approved by the Congress, or another agency of two or more states, having substantial powers or duties pertaining to the control of pollution as determined and approved by the Administrator.

*Large municipal separate storm sewer system*—A municipal separate storm sewer system defined in 40 CFR 122.26(b)(4) (relating to stormwater discharge (applicable to state NPDES programs)).

*Livestock*—

(i) Animals raised, stabled, fed or maintained on an agricultural operation with the purpose of generating income or providing work, recreation or transportation. Examples include: dairy cows, beef cattle, goats, sheep, swine and horses.

(ii) The term does not include aquatic species.

*Log sorting* and *log storage facilities*—Facilities whose discharges result from the holding of unprocessed wood, for example, logs or roundwood with bark or after removal of bark held in self-contained bodies of water (mill ponds or log ponds) or stored on land where water is applied intentionally on the logs (wet decking). See 40 CFR Part 429, Subpart J (relating to log washing), including the effluent limitations guidelines.

*Manure*—

(i) Animal excrement, including poultry litter, which is produced at an agricultural operation.

(ii) The term includes materials such as bedding and raw materials which are commingled with that excrement.

*Maximum daily discharge limitation*—The highest allowable daily discharge.

*Medium municipal separate storm sewer system*—A municipal separate storm sewer system as defined in 40 CFR 122.26(b)(7).

*Minor discharge*—A discharge which has a total volume of less than 50,000 gallons on every day of the year, does not affect the waters of another state, and is not identified by the Department, the Regional Administrator or by the Administrator in regulations issued under section 307(a) of the Federal Act (33 U.S.C.A. § 1317(a)) as a discharge which is not a minor discharge. If there is more than one discharge from a facility and the sum of the volumes of all discharges from the facility exceeds 50,000 gallons on any day of the year, no discharge from the facility is a minor discharge.

*Municipal separate storm sewer system*—A separate storm sewer (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels or storm drains) which is all of the following:

(i) Owned or operated by a state, city, town, borough, county, district, association or other public body (created by or under State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the Federal Act (33 U.S.C.A. § 1288) that discharges to surface waters of this Commonwealth.

(ii) Designed or used for collecting or conveying stormwater.

(iii) Not a combined sewer.

(iv) Not part of a POTW.

*NOI—Notice Of Intent*—A complete form submitted for NPDES general permit coverage which contains information required by the terms of the permit and by §§ 92.81—92.83 (relating to general permits). An NOI is not an application.

*NPDES form*—An issued NPDES permit and a National form developed for use in the NPDES, including the application and the NPDES reporting form.

*NPDES permit*—A permit or equivalent document or requirements issued by the Administrator, or, when appropriate, by the Department after enactment of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C.A. §§ 1281 and 1361), to regulate the discharge of pollutants under section 402 of the Federal Act (33 U.S.C.A. § 1342).

*NPDES primary industry categories*—The primary industry categories in 40 CFR Part 122, Appendix A (relating to NPDES primary industry categories), which is incorporated by reference.

*NPDES reporting form*—The form for reporting monitoring results approved by the Administrator for use in this Commonwealth, also referred to as a discharge monitoring report (DMR), and any supplemental forms provided by the Department.

*New discharger*—A building, structure, facility, activity or installation from which there is or may be a discharge of pollutants that did not commence the discharge at a particular site prior to August 13, 1979, which is not a new source, and which has never received a final effective NPDES permit for discharges at that site.

*New source*—A building, structure, facility, activity or installation from which there is or may be a discharge of pollutants, the construction of which commenced after promulgation of standards of performance under section 306 of the Federal Act (33 U.S.C.A. § 1316) which are applicable to the source, or after proposal of standards of performance in accordance with section 306 of the Federal Act which are applicable to the source.



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*Noncontact cooling water*—Cooling water that does not contact any raw material, intermediate product, finished product, byproduct or waste product.

*Nonconventional pollutant*—A pollutant which is not a conventional or toxic pollutant.

*POTWs—Publicly Owned Treatment Works*—

(i) A device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a state or municipality.

(ii) The term includes sewers, pipes or other conveyances only if they convey wastewater to a POTW providing treatment.

*Perennial stream*—A body of water flowing in a channel or bed composed primarily of substrates associated with flowing waters and capable, in the absence of pollution or other manmade stream disturbances, of supporting a benthic macroinvertebrate community which is composed of two or more recognizable taxonomic groups of organisms which are large enough to be seen by the unaided eye and can be retained by a United States Standard No. 30 sieve (28 meshs per inch, 0.595 mm openings) and live at least part of their life cycles within or upon available substrates in a body of water or water transport system.

*Person*—Any individual, public or private corporation, partnership, association, municipality or political subdivision of this Commonwealth, institution, authority, firm, trust, estate, receiver, guardian, personal representative, successor, joint venture, joint stock company, fiduciary; department, agency or instrumentality of State, Federal or local government, or an agent or employe thereof; or any other legal entity.

*Point source*—Any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, CAFO, landfill leachate collection system, or vessel or other floating craft, from which pollutants are or may be discharged.

*Pollutant*—Any contaminant or other alteration of the physical, chemical, biological or radiological integrity of surface water which causes or has the potential to cause pollution as defined in section 1 of the State Act (35 P. S. § 691.1).

*Pollution prevention*—Source reduction and other practices that reduce or eliminate the creation of pollutants through increased efficiency in the use of raw materials, energy, water or other resources, or protection of natural resources by conservation.

*Primary industrial facility*—An industrial facility in a primary industry category, as defined in 40 CFR 122.2 (relating to definitions).

*Process wastewater*—Water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct or waste product.

*Regional Administrator*—The EPA Regional Administrator for Region III.

*Rock crushing and gravel washing facilities*—Facilities which process crushed and broken stone, gravel and riprap (see 40 CFR Part 436, Subpart B (relating to crushed stone subcategory), including the effluent limitations guidelines).

*SSO—Sanitary Sewer Overflow*—An intermittent overflow of wastewater, or other untreated discharge from a separate sanitary sewer system (which is not a combined sewer system), which results from a flow in excess of the carrying capacity of the system or from some other cause prior to reaching the headworks of the sewage treatment facility.

*Schedule of compliance*—A schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with effluent limitations, prohibition, other limitations of standard.

*Separate storm sewer*—A conveyance or system of conveyances (including pipes, conduits, ditches and channels) primarily used for collecting and conveying stormwater runoff.

*Setback*—A specified distance from the top of the bank of surface waters, or potential conduits to surface waters, where manure and agricultural process wastewater may not be land applied. Examples of conduits to surface waters includes, but are not limited to:

(i) Open tile line intake structures.

(ii) Sinkholes.

(iii) Agricultural wellheads.

*Sewage*—A substance that contains any of the waste products or excrementitious or other discharge from the bodies of human beings or animals.

*Silvicultural point source*—

(i) A discernible, confined and discrete conveyance related to rock crushing, gravel washing, log sorting or log storage facilities which is operated in connection with silvicultural activities and from which pollutants are discharged into waters of this Commonwealth.

(ii) The term does not include nonpoint source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance from which there is runoff.

*Single residence sewage treatment plant*—A system of piping, tanks or other facilities serving a single family residence located on a single family residential lot, which collects, disposes and treats solely direct or indirect sewage discharges from the residence into surface waters of this Commonwealth.

*Small municipal separate storm sewer system*—A municipal separate storm sewer system as defined in 40 CFR 122.26(b)(16)—(18).

*State Act*—The Clean Streams Law (35 P. S. §§ 691.1—691.1001).

*Stormwater*—Runoff from precipitation, snow melt runoff and surface runoff and drainage.



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*Stormwater discharge associated with construction activity*—The discharge or potential discharge of stormwater into waters of this Commonwealth from construction activities including clearing and grubbing, grading and excavation activities involving 5 acres (2 hectares) or more of earth disturbance, or an earth disturbance on any portion, part of or during any stage of a larger common plan of development or sale that involves 5 acres (2 hectares) or more of earth disturbance over the life of the project.

*Stormwater discharge associated with industrial activity*—The discharge from any conveyance which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing or raw materials storage areas at an industrial area, as defined in 40 CFR 122.26(b)(14) which is incorporated by reference.

*Surface waters*—Perennial and intermittent streams, rivers, lakes, reservoirs, ponds, wetlands, springs, natural seeps and estuaries, excluding water at facilities approved for wastewater treatment such as wastewater treatment impoundments, cooling water ponds and constructed wetlands used as part of a wastewater treatment process.

*Toxic pollutant*—Those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, may, on the basis of information available to the Administrator or Department, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in these organisms or their offspring.

*Vegetated buffer*—A permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for purposes that include slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential pollutants from leaving the field and reaching surface waters.

*WETT—Whole Effluent Toxicity Testing*—

(i) A test, survey, study, protocol or assessment which includes the use of aquatic, bacterial, invertebrate or vertebrate species to measure acute or chronic toxicity, and any biological or chemical measure of bioaccumulation, bioconcentration or impact on established aquatic and biological communities.

(ii) The term includes any established, scientifically defensible method which is sufficiently sensitive to measure toxic effects.

*Water quality-based effluent limitation*—An effluent limitation based on the need to attain or maintain the water quality criteria and to assure protection of designated and existing uses.

*Water quality standards*—The combination of water uses to be protected and the water quality criteria necessary to protect those uses.

*Wetlands*—Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas.

*Whole effluent toxicity*—The total toxic effect of an effluent measured directly with a toxicity test.

**Authority**

The provisions of this § 92.1 issued under section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20); and sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402).

**Source**

The provisions of this § 92.1 amended July 20, 1984, effective July 21, 1984, 14 Pa.B. 2672; amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059; amended October 21, 2005, effective October 22, 2005, 35 Pa.B. 5796. Immediately preceding text appears at serial pages (310163) to (310164), (271959) to (271964) and (296985).

**Notes of Decisions**

*Pollutant*

A discharge that tested positive for excessive levels of ammonia, chloride, nitrate, nitrite, phosphorous, sulfate, dissolved solids, total coliform bacteria, fecal coliform bacteria, copper, lead, nickel and zinc was a ''pollutant''as defined in § 92.1. *Reynolds v. Rick's Mushroom Services, Inc.*, 246 F. Supp. 2d 449 (E. D. Pa. 2003).

**Cross References**

This section cited in 7 Pa. Code § 130e.2 (relating to definitions); 25 Pa. Code § 91.1 (relating to definitions); 25 Pa. Code § 92.5a (relating to CAFOs); and 25 Pa. Code § 96.1 (relating to definitions).

## § 92.2. Incorporation of Federal regulations by reference.

(a) Except as specified in subsection (c), the Federal NPDES regulations in subsection (b), including all appendices, future amendments and supplements thereto, are incorporated by reference to the extent that these provisions are applicable and not contrary to Pennsylvania law. In the event of any conflict among Federal and Pennsylvania regulatory provisions, the provision expressly set out in this chapter shall be utilized unless the Federal provision is more stringent.

(b) The following Federal regulatory provisions in 40 CFR Parts 122, 124 and 125 (relating to EPA administered permit programs: the National Pollutant Discharge Elimination System; procedures for decisionmaking; and criteria and standards for the National Pollutant Discharge Elimination system) are incorporated by reference:

(1) 122.2 (relating to definitions).

(2) 122.4 (relating to prohibitions).

(3) 122.5 (relating to effect of a permit).



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(4) 122.7(b) (relating to confidentiality of information).

(5) 122.21(g)(1)—(7), (9)—(13), (h), (i)(2), (j), (k), (l), (m)(6) and (p) (relating to application for a permit).

(6) 122.24 (relating to concentrated aquatic animal production facilities).

(7) 122.25 (relating to aquaculture projects).

(8) 122.26(a)—(b), (c)(1), (d), (e)(1), (3)—(7) and (f)—(g) (relating to stormwater discharges).

(9) 122.27 (relating to silvicultural activities).

(10) 122.29 (relating to new sources and new discharges).

(11) 122.41(a)—(m) (relating to conditions applicable to all permits).

(12) 122.42 (relating to additional conditions applicable to specific categories of NPDES permits).

(13) 122.43 (relating to establishing permit conditions).

(14) 122.44 (relating to establishing limitations, standards, and other permit conditions).

(15) 122.45 (relating to calculating NPDES permit conditions).

(16) 122.48 (relating to requirements for recording and reporting monitoring results).

(17) 122.50 (relating to disposal of pollutants into wells, into publicly owned treatment works or by land application).

(18) 122.61—122.64 (relating to transfer, modification or revocation and reissuance of permits; and termination of permits).

(19) 124.57(a) (relating to public notice of section 316 requests.

(20) 125.1—125.3 (relating to purpose and scope; definitions; and technology-based treatment requirements in permits.

(21) 125.10 and 125.11 (relating to purpose and scope; and criteria).

(22) 125.30—125.32 (relating to purpose and scope; criteria and method of application).

(23) 125.62(a)(3), (e)(1) and (f) (relating to attainment or maintenance of water quality which assures protection of public water supplies; assures the protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife; and allows recreational activities).

(24) 125.70—125.73 (relating to purpose and scope; early screening of applications for section 316(a) variances criteria and standards for determining alternative effluent limitations under section 316(a) of the act).

(25) 125.100—125.104 (relating to criteria and standards for best management practices authorized under section 304(e) of the act).

(c) Any new or amended Federal regulation enacted after November 18, 2000, which creates a variance to existing NPDES permitting requirements is not incorporated by reference.



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**Authority**

The provisions of this § 92.2 issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.2 adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.

## § 92.2a. Treatment requirements.

(a) Specific treatment requirements and effluent limitations for each discharge shall be established based on the more stringent of the following:

(1) Requirements specified in Chapters 93, 95 and 96 (relating to water quality standards; wastewater quality standards; and water quality standards implementation).

(2) The applicable treatment requirements and effluent limitations to which a discharge is subject under this chapter and the Federal Act.

(3) The treatment requirements and effluent limitations of this title.

(b) When interstate or international agencies under an interstate compact or international agreement establish applicable effluent limitations or standards for dischargers of this Commonwealth to surface waters which are more stringent than those required by this title, the more stringent standards and limitations apply.

(c) If the Department has confirmed the presence or critical habitat of endangered or threatened species under Federal or State law or regulation, discharges to these waters shall be limited to ensure protection of these species and critical habitat.

**Authority**

The provisions of this § 92.2a issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.2a adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.

**Cross Referenes**

This section cited in 25 Pa. Code § 92.5a (relating to CAFOs).

## § 92.2b. Pollution prevention.

The Department will encourage pollution prevention by providing assistance to the permittee and users of the permittee's facilities in the consideration of pollution prevention measures such as process changes, materials substitution, reduction in volume of water use, in-process recycling and reuse of water and general



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measures of ''good housekeeping'' within the plant or facility. The Department will encourage consideration of the following measures, in descending order of preference, for environmental management of wastes: reuse, recycling, treatment and disposal.

**Authority**

The provisions of this § 92.2b issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.2b adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.

## § 92.2c. Minimum sewage and industrial waste treatment requirements.

(a) *Sewage discharges.*

(1) Sewage, except that discharged from a CSO which is in compliance with § 92.21a(f) (relating to additional application requirements for classes of dischargers) under paragraph (2), or as provided in paragraph (3), shall be given a minimum of secondary treatment.

(2) Dischargers of sewage from a CSO that meets the requirements of § 92.21a(f) shall implement, as approved by the Department, nine minimum controls (NMCs) and a long-term control plan (LTCP) to minimize or eliminate the CSO discharge impact on receiving surface water quality.

(3) Discharges from an SSO are prohibited under § 92.73(8) (relating to prohibition of certain discharges).

(b) Secondary treatment for sewage is that treatment which accomplishes the following:

(1) Compliance with the requirements of secondary treatment as defined by the administrator under section 304 of the Federal Act (33 U.S.C.A. § 1314). The regulations promulgated by the EPA in 40 CFR Part 133 (relating to secondary treatment regulations) including amendments thereto, are incorporated by reference.

(2) Provision of effective disinfection to control disease-producing organisms during the swimming season—May 1 through September 30. Effective disinfection to control disease-producing organisms shall be defined as the product of an effluent which will contain a concentration not greater than 200/100 milliliters of fecal coliform organisms as a geometric mean value nor greater than 1,000/100 milliliters of these organisms in more than 10% of the samples tested.

(3) Provision for the disposal or beneficial use of sludge in accordance with applicable Department regulations.

(4) Compliance with § 95.2(1)—(3) (relating to quality standards and oil-bearing wastewaters).

(c) Industrial wastes regulated by this chapter shall meet the requirements in § 95.2.

**Authority**

The provisions of this § 92.2c issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.2c adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.

## § 92.2d. Technology-based standards.

Discharges that are regulated by this chapter shall meet the following minimum requirements when applicable:

(1) EPA-promulgated effluent limitation guidelines established under section 304 of the Federal Act (33 U.S.C.A. § 1314).

(2) For those industrial categories for which no effluent limitations have been established under paragraph (1), Department-developed technology-based limitations established in accordance with 40 CFR 125.3 (relating to technology-based treatment requirement in permits).

(3) For facilities utilizing chlorine, the following apply:

(i) For those facilities utilizing chlorine which discharge to surface waters, an effluent limitation representing the BAT for the discharge of total residual chlorine (TRC). If the EPA adopts a National categorical ELG for TRC for a specific industry or activity under section 301 or 304(b) of the Federal Act (33 U.S.C.A. §§ 1311 and 1314(b)), that ELG constitutes BAT for the industry or activity. If the EPA has not promulgated a National ELG for an industry or activity, the Department may develop a facility-specific BAT effluent limitation. Factors which will be considered in developing a facility-specific BAT effluent limitation include the following:

(A) The age of equipment and facilities involved.

(B) The engineering aspects of the application of various types of control techniques and alternatives to the use of chlorine or reductions in the volume of chlorine used during the disinfection process.

(C) The cost of achieving the effluent reduction.

(D) Nonwater quality environmental impacts (including energy requirements).

(E) Other factors the Department deems appropriate.

(ii) For facilities where the EPA has not promulgated a National ELG for an industry or activity, and the Department has not developed a facility-specific BAT effluent limitation under the factors in this subparagraph, an effluent limitation for TRC of 0.5 mg/l (30-day average) shall constitute BAT.



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(iii) Facilities utilizing chlorine which discharge to Exceptional Value Waters, or High Quality Waters where economic or social justification under § 93.4c(b)(1)(iii) (relating to implementation of antidegradation requirements) has not been demonstrated under applicable State or Federal law or regulations, shall discontinue the use of chlorine or dechlorinate their effluents prior to discharge into the waters.

(4) Oil-bearing wastewaters shall meet the requirements in § 95.2 (relating to water quality standards and oil-bearing wastewaters).

**Authority**

The provisions of this § 92.2d issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.2d adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.

## PERMITS

### § 92.3. Permit requirement.

A person may not discharge pollutants from a point source into surface waters except as authorized under an NPDES permit.

**Authority**

The provisions of this § 92.3 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.3 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text apepars at serial page (228248).

**Notes of Decisions**

*Elements of Offense*

Where the defendant admitted that it did not have an NPDES permit, the only determination for the court is whether the defendant discharged pollutants from a point source. *Reynolds v. Rick's Mushroom Services, Inc.*, 246 F. Supp. 2d 449 (E. D. Pa. 2003).

### § 92.4. Exclusions from permit requirements.

(a) The following are excluded from the requirement of obtaining an NPDES permit under this chapter:

(1) Introduction of pollutants from nonpoint source agricultural activities and irrigation return flows. As used in this paragraph, ''irrigation return flows''

means pollutants discharged into surface waters from a discernible, confined and discrete conveyance which results from the controlled application of water by any person to land used primarily for crops, forage growth or nursery operations.

(2) Silviculture activities, except that this exclusion does not apply to silvicultural point sources.

(3) Sewage from vessels within the meaning of section 312 of the Federal Act (33 U.S.C.A. § 1322).

(4) Water, gas or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well is used either to facilitate production or for disposal purposes, is approved by authority of the Department, and if the Department determines that the injection or disposal will not result in the degradation of ground or surface water resources.

(5) Discharges of dredged or fill material into waters of the United States which are regulated under section 404 of the Federal Act (33 U.S.C.A. § 1344).

(6) Indirect discharges subject to the following requirements:

(i) Except as provided in subparagraph (ii), the discharge of sewage, industrial wastes or other pollutants into a POTW or privately owned treatment works which is, or will be when connected, conveying and treating the discharge into the treatment works, and is operated and maintained in accordance with the State Act, rules and regulations promulgated thereunder, the permit and any applicable orders.

(ii) The Department may require that an indirect discharger of sewage, industrial waste or other pollutants obtain a permit under the State Act to discharge into a POTW or privately owned treatment works where necessary to assure protection of waters of this Commonwealth in situations including, but not limited to, one or more of the following:

(A) When the indirect discharger has failed to take adequate measures to prevent, reduce or otherwise eliminate the discharge.

(B) When the indirect discharger has failed to take adequate measures to pretreat its discharge prior to conveying the discharge to the POTW.

(C) When the discharge would otherwise result in interference with proper operations of the POTW, upsets at the POTW or pass-throughs of pollutants.

(7) A discharge in compliance with the instructions of the Department in an environmental emergency cleanup situation remediating a one time spill or release of pollutants, or the instructions of an on-scene coordinator under 40 CFR Part 300 or 33 CFR Part 153 (relating to National Oil and Hazardous Substances Pollution Contingency Plan; and control of pollution by oil and hazardous substances, discharge removal), where necessary to abate an imminent threat to the public health or safety.



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(b) The specification of exclusion under subsection (a) may not relieve any person of any requirement imposed by the State Act or the regulations, other than this chapter, promulgated thereunder, including State permit requirements.

**Authority**

The provisions of this § 92.4 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.4 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (228248).

## § 92.5. NPDES permit satisfies certain other permit requirements.

An NPDES permit issued for a discharge pursuant to this chapter is the Department permit for purposes of sections 202 and 307 of the Clean Streams Law (35 P. S. §§ 691.202 and 691.307).

## § 92.5a. CAFOs.

(a) Except as provided in subsections (b)—(d), each CAFO shall have applied for an NPDES permit on the following schedule, and shall have obtained a permit:

(1) By May 18, 2001, for any CAFO in existence on November 18, 2000, with greater than 1,000 AEUs.

(2) By February 28, 2002, for any other CAFO in existence on November 18, 2000.

(3) Prior to beginning operation, for any new or expanded CAFO that began operation after November 18, 2000, and before October 22, 2005.

(b) A poultry operation that is a CAFO, which is in existence on October 22, 2005, and that is not using liquid manure handling systems, shall apply for an NPDES permit no later than the following, and shall obtain a permit:

(1) By April 24, 2006, for operations with 500 or more AEUs.

(2) By January 22, 2007, for all other operations.

(c) After October 22, 2005, a new operation, and an existing operation that will become a CAFO due to changes in operations such as additional animals or loss of land suitable for manure application, shall do the following:

(1) Apply for an NPDES permit at least 180 days before the operation commences or changes.

(2) Obtain an NPDES permit prior to commencing operations or making changes, as applicable.

(d) Other operations not described in subsections (a)—(c) that will become newly regulated as a CAFO for the first time due to the changes in the definition of a CAFO in § 92.1 (relating to definitions) shall apply for a permit by April 24, 2006, and obtain a permit.

(e) The NPDES permit application requirements shall include, but not be limited to, the following:

(1) A nutrient management plan meeting the requirements of Chapter 83, Subchapter D (relating to nutrient management) and approved by the county conservation district or the State Conservation Commission. The plan must include:

(i) Manure application setbacks for the CAFO of at least 100 feet, or vegetated buffers at least 35 feet in width.

(ii) A statement that manure that is stockpiled for 15 consecutive days or longer shall be under cover or otherwise stored to prevent discharge to surface water during a storm event up to and including the appropriate design storm for that type of operation under § 91.36(a)(1) and (5) (relating to pollution control and prevention at agricultural operations).

(2) An erosion and sediment control plan for plowing and tilling operations meeting the requirements of Chapter 102 (relating to erosion and sediment control).

(3) When required under § 91.36(a), a water quality management permit, permit application, approval or engineer's certification, as required.

(4) A preparedness, prevention and contingency plan for pollutants related to the CAFO operation.

(5) A water quality management permit application as required by this chapter and Chapter 91 (relating to general provisions), when treatment facilities that would include a treated wastewater discharge are proposed.

(6) Measures to be taken to prevent discharge to surface water from storage of raw materials such as feed and supplies. These measures may be included in the nutrient management plan.

(f) NPDES permits for each CAFO shall include, but not be limited to, conditions requiring the following:

(1) Compliance with the Nutrient Management Plan, the Preparedness, Prevention and Contingency Plan and the Erosion and Sediment Control Plan for plowing and tilling operations.

(2) A separate NPDES permit for stormwater discharges associated with a construction activity meeting the requirements of Chapter 102 (relating to erosion and sediment control) when applicable.

(3) Compliance with 3 Pa.C.S. §§ 2301—2389 (relating to the Domestic Animal Law).

(4) Compliance with § 91.36.

(5) Recordkeeping and reporting requirements as described in the permit.

(6) When applicable, effluent limitations and other conditions as required under § 92.2a (relating to treatment requirements) to meet water quality standards, for treated wastewater discharges.

(7) Measures needed to be taken to prevent discharge to surface water from storage of raw materials such as feed and supplies, which are not otherwise included in the nutrient management plan.



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**Authority**

The provisions of this § 92.5a issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.5a adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059; amended October 21, 2005, effective October 22, 2005, 35 Pa.B. 5796. Immediately preceding text appears at serial pages (313602) and (271973).

**Cross References**

This section cited in 25 Pa. Code § 91.36 (relating to pollution control and prevention at agricultural operations).

## § 92.6. [Reserved].

**Source**

The provisions of this § 92.6 amended October 6, 1978, 8 Pa.B. 2721; reserved November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (228249).

## § 92.7. New or increased discharges, or change of wastestreams.

Facility expansions, production increases or process modifications, which result in new or increased discharges of pollutants, which discharges do not violate effluent limitations specified in the NPDES permit, shall be reported by submission to the Department of notice of the new or increased discharges. A new permit application shall be submitted and a new permit obtained before commencing a new or increased discharge, or change of the wastestream, which would violate effluent limitations in the NPDES permit or which would include any new or increased pollutant not identified in a previous permit application.

**Authority**

The provisions of this § 92.7 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.7 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (228249).

## § 92.8. [Reserved].

## § 92.8a. Changes in treatment requirements.

(a) Whenever there is a change in Chapters 93, 95 and 96 (relating to water quality standards; wastewater treatment requirements; and water quality standards implementation), or this chapter, or whenever the Department adopts a plan or makes a determination which would change existing or impose additional water quality criteria or treatment requirements, it shall be the duty of the permittee of facilities affected thereby, upon notice from the Department, to promptly take

steps necessary to plan, obtain a permit or other approval and construct facilities that are required to comply with the new water quality standards or treatment requirements.

(b) Within 180 days of the receipt of the notice, the permittee shall submit to the Department either a report establishing that its existing facilities are capable of meeting the new water quality standards or treatment requirements, or a schedule setting forth the nature and date of completion of steps that are necessary to plan, obtain a permit or other approval, and construct facilities to comply with the new water quality standards or treatment requirements. The permittee shall comply with the schedule approved by the Department.

(c) Whenever a point of projected withdrawal for a new potable water supply not previously considered is identified by an update to the State Water Plan or a river basin commission plan, or by the application for a water allocation permit from the Department, the Department will notify a discharger of total dissolved solids, nitrite-nitrate nitrogen and fluoride of more stringent effluent limitations needed to protect the point of withdrawal. The discharger shall meet more stringent effluent limitations in accordance with a schedule approved by the Department. The Department will issue orders directing dischargers to achieve compliance or will impose permit modifications with compliance schedules, when necessary.

**Authority**

The provisions of this § 92.8a issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.8a adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.

## § 92.9. Duration of permits.

(a) NPDES permits shall have a fixed term not to exceed 5 years.

(b) The terms and conditions of an expired permit are automatically continued when the following conditions are met:

(1) The permittee has submitted a timely application for a new permit in accordance with § 92.13 (relating to reissuance or renewal of permits).

(2) The Department is unable, through no fault of the permittee, to issue or deny a new permit before the expiration date of the previous permit.

(c) Permits continued under subsection (b) shall remain effective and enforceable against the discharger until the Department takes final action on the pending permit application.



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**Authority**

The provisions of this § 92.9 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.9 amended October 5, 1979, effective October 6, 1979, 9 Pa.B. 3369; amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (228249) to (228250).

## § 92.10. [Reserved].

## § 92.11. Duration of standards for certain new sources.

Any point source the construction of which is commenced after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C.A. §§ 1281 and 1361) (October 18, 1972) and which is so constructed as to meet the applicable standards of performance, may not be subject to any more stringent treatment technology standard of performance during a 10-year period beginning on the date of completion of the construction during the period of depreciation or amortization of the facility for the purpose of section 167 or section 169, or both, of the Internal Revenue Code of 1954 (26 U.S.C.A. §§ 167 and 169), or 10 years from the date the source begins to discharge process or other nonconstruction related wastewater, whichever period ends first. A more stringent standard may be imposed if the imposition is allowed under section 510 of the Federal Act (33 U.S.C.A. § 1370). This section does not apply to water quality based effluent limitations.

**Authority**

The provisions of this § 92.11 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.11 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (228250).

## § 92.12. [Reserved].

## § 92.13. Reissuance or renewal of permits.

(a) A permittee who wishes to continue to discharge after the expiration date of its NPDES permit shall submit a new application for reissuance or renewal of the permit at least 180 days prior to the expiration of the permit unless permission has been granted for a later date by the Department. The application fees specified in § 92.22 (relating to application fees) apply.

(b) Upon completing review of the new application, the Department may reissue or renewal the permit if, based on up-to-date information on the permit-

tee's waste treatment practices and the nature, contents and frequency of the permittee's discharge, the Department determines that the:

(1) Permittee is in compliance with all existing Department-issued permits, regulations, orders and schedules of compliance, or that any noncompliance with an existing permit has been resolved by an appropriate compliance action or by the terms and conditions of the permit (including a compliance schedule set forth in the permit) consistent with § 92.55 (relating to schedules of compliance) and other applicable Department regulations.

(2) Discharge is, or will be under a compliance schedule issued under § 92.55 and other applicable regulations, consistent with the applicable water quality standards, effluent limitations or standards and other legally applicable requirements established under this title, including revisions or modifications of the standards, limitations and requirements which may have occurred during the term of the existing permit.

**Authority**

The provisions of this § 92.13 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of § 92.13 amended through November 7, 1980, effective November 8, 1980, 10 Pa.B. 4295; amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (228250) and (263059).

**Cross References**

This section cited in 25 Pa. Code § 92.9 (relating to duration of permits); 25 Pa. Code § 92.21 (relating to applications); and 25 Pa. Code § 92.67 (relating to notice of reissuance of permits).

## § 92.13a. Effect of modification of permit.

When an NPDES permit is modified, only those permit conditions which are new or are materially changed in the modified permit are reopened. All other conditions of the permit remain in full force and effect and remain administratively final.

**Authority**

The provisions of this § 92.13a issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.13a adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.

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**§ 92.14. [Reserved].**

**§ 92.15. Regional Administrator's right to object to the issuance or modification of certain permits.**

The EPA Administrator has a right to review or object to issuance of certain permits. The scope of EPA review and the procedures for its exercise are described in a Memorandum of Agreement which was incorporated in the Program Description submitted to the EPA by the Department. A copy of the Memorandum of Agreement is on file with the Department and with the Administrator of EPA Region III.

**Authority**

The provisions of this § 92.15 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.15 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (263059).

**§ 92.16. [Reserved].**

**§ 92.17. Other chapters applicable.**

To the extent that Chapters 91, 93, 95, 96, 102 and 105 pertain to a discharge for which an NPDES permit is required, Chapters 91, 93, 95, 96, 102 and 105 shall govern whenever their application produces a more stringent effluent limitation than would be produced by application of Federal requirements. Effluent limitations resulting from the application of these chapters shall be expressed in an NPDES permit issued under this chapter.

**Authority**

The provisions of this § 92.17 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.17 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (263059).

## APPLICATION FOR PERMITS

**§ 92.21. Applications.**

(a) Persons wishing to commence discharges of pollutants shall file a complete application not less than 180 days before the date on which it is desired to commence the discharge of pollutants or within another period of time which the

Department determines is sufficient to insure compliance with State and Federal law, including applicable water quality standards and applicable effluent limitations or standards.

(b) At a minimum, the following are required to be submitted by all applicants for an individual permit, except as otherwise specified:

(1) A permit application fee and other fees as set forth in § 92.22 (relating to application fees).

(2) Except for mining activity water quality permits, proof that written notice of an application has been submitted to the municipality in which the activity is or will be located at least 30 days before the Department may take action on the application.

(3) For discharges of industrial waste, including process wastewaters, CCWs and noncontact cooling waters, proof that public notice of the application has been published in a newspaper of general circulation in the locality in which the activity is or will be located once a week during a consecutive 4-week period.

(4) A description of the activities conducted by the applicant which require an NPDES permit; name, mailing address and location of the facility; up to four standard industrial codes (SIC) which best reflect the principal products or services provided by the facility; the operator's name, address, telephone number, ownership status and entity status; a listing of all Department and EPA environmental quality permits for the facility; a topographic or other map extending 1 mile beyond the boundaries of the facility or activity; and a brief description of the nature of the business.

(5) Documentation that the applicant is in compliance with all existing Department permits, regulations, orders and schedules of compliance, or that any noncompliance with an existing permit has been resolved by an appropriate compliance action or by the terms and conditions of the permit (including a compliance schedule set forth in the permit) consistent with § 92.55 (relating to schedules of compliance) and other applicable Department regulations.

(c) In addition to the information required under subsection (b), the Department may require an applicant to submit other information or data the Department may need to assess the discharges of the facility and any impact on receiving waters, and to determine whether to issue an NPDES permit, or what conditions or effluent limitations (including water quality based effluent limitations) to place in the permit. The additional information may include, but is not limited to:

(1) The results of an effluent assessment (or estimate for new dischargers or new sources), including a list of the mass and concentration of pollutants found (or estimated to be for new discharges or new sources) in the wastewater discharge, under Department protocols.

(2) The results of any pollutant source or waterbody monitoring conducted under this title.



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(3) Information relating to the biological, physical and chemical characteristics of waters and habitat immediately upstream and downstream of the proposed discharge conducted under a Department approved protocol.

(d) In addition to the information required under subsections (b) and (c), the Department may require an applicant for a modification, renewal or reissuance of a permit under § 92.13 (relating to reissuance or renewal of permits) or when required under 40 CFR Part 122 (relating to EPA administered programs: the National Pollutant Discharge Elimination System), to provide the following information:

(1) The results of a waterbody assessment, under Department protocols, setting forth the impact (or potential impact) of the discharges on surface waters of this Commonwealth.

(2) The results of whole effluent toxicity testing, an instream cause/effect survey, or other tests or surveys as needed to determine the impact of a discharge on a waterbody conducted under a Department-approved protocol.

(3) Additional quantitative data and bioassays to assess the relative toxicity of discharges to aquatic life, and to determine the cause of the toxicity, and information relating to the biological, physical and chemical characteristics of waters and habitat immediately upstream and downstream of the facility conducted under a Department-approved protocol.

(e) Three copies of complete applications shall be submitted, one of which shall be attested by a notary public, justice of the peace, alderman or district justice. The Department may require additional copies of the application to be filed.

(f) The Department will publish at least annually a list of addresses to which applications and their accompanying papers shall be submitted.

(g) A person required to file an application shall also file additional modules, forms and applications, and supply data as specified by the Department. Additional modules, forms, applications and data shall be considered a part of the application.

**Authority**

The provisions of this § 92.21 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.21 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (263059) to (263060).

**Notes of Decisions**

Although a coordinated review may be generally desirable, there is nothing in the National Pollutant Discharge Elimination System regulations which requires that review of NPDES permit applications be coordinated with review of other required permits. *Del-Aware Unlimited, Inc. v. Department of Environmental Resources*, 508 A.2d 348. (Pa. Cmwlth. 1986).

**Cross References**

This section cited in 25 Pa. Code § 92.83 (relating to inclusion of individual dischargers in general NPDES permits).

## § 92.21a. Additional application requirements for classes of dischargers.

(a) *Existing industrial discharges*. Dischargers of industrial waste from sources other than new sources or new discharges subject to subsection (b), nonprocess wastewater discharges subject to subsection (c) and stormwater discharges associated with industrial activity subject to subsection (d), shall submit the applicable information required to be submitted under 40 CFR 122.21(g)(1)—(7) and (g)(9)—(13) (relating to application for a permit), which is incorporated by reference.

(b) *New sources and new discharges*. Except for new discharges of industrial facilities which discharge nonprocess wastewater subject to subsection (c) and new discharges of stormwater associated with industrial activity subject to subsection (d), new discharges and new sources applying for NPDES permits shall submit the information required to be submitted, as applicable, under 40 CFR 122.21(k), which is incorporated by reference.

(c) *Nonprocess industrial waste discharges*. Except for stormwater discharges associated with industrial activity subject to subsection (d), industrial waste dischargers applying for NPDES permits which discharge only nonprocess wastewater not regulated by an effluent limitation guideline or new source performance standard shall submit the information required to be submitted, as applicable, under 40 CFR 122.21(h), which is incorporated by reference.

(d) *Stormwater discharges associated with industrial activity*. Applicants for individual NPDES permits for the discharge of stormwater associated with industrial activity shall submit the information required to be submitted, as applicable, under 40 CFR 122.21(g)(7) and 122.26(c)(1) (relating to storm water discharges (applicable to state NPDES program)), which are incorporated by reference. In addition, stormwater dischargers associated with construction activity shall submit information required in § 102.4 (relating to erosion and sediment control requirements) as appropriate.

(e) *New and existing sewage dischargers*. The following additional application requirements apply to new and existing sewage dischargers (including POTWs and privately owned treatment works), as applicable except where aquatic communities are essentially excluded as documented by water quality data confirming the absence of the communities and confirming the lack of a trend of water quality improvement in the waterbody:

(1) The following sewage dischargers shall provide the results of whole effluent toxicity testing to the Department:

(i) Sewage dischargers with design influent flows equal to or greater than 1 million gallons per day.



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(ii) Sewage dischargers with approved pretreatment programs or required to develop a pretreatment program.

(2) In addition to the sewage dischargers in paragraph (1), the Department may require other sewage dischargers to submit the results of toxicity tests with their permit applications, based on consideration of the following factors:

(i) The variability of the pollutants or pollutant parameters in the sewage effluent (based on chemical-specific information, the type of treatment facility and types of industrial contributors).

(ii) The dilution of the effluent in the receiving water (ratio of effluent flow to receiving stream flow).

(iii) Existing controls on point or nonpoint sources, including calculations of total maximum daily loads (TMDLs), as defined in § 96.1 (relating to definitions), for the waterbody segment, and the relative contribution of the sewage discharger.

(iv) Receiving surface water characteristics, including possible or known water quality impairment, and whether the sewage discharges to an estuary, one of the Great Lakes or a Water which is classified as a High Quality Water or an Exceptional Value Water under Chapter 93 (relating to water quality standards).

(v) Other considerations including, but not limited to, the history of toxic impact and compliance problems at the sewage discharge facility, which the Department determines could cause or contribute to adverse water quality impacts.

(3) For sewage dischargers required under paragraph (1) or (2) to conduct toxicity testing, the EPA's methods or other protocols approved by the Department, which are scientifically defensible and sufficiently sensitive to detect aquatic toxicity and approved by the Department, shall be utilized. The testing shall have been conducted since the last NPDES permit reissuance or when requested by the Department, whichever occurred later.

(f) *CSOs*. CSO dischargers shall submit the following information:

(1) The results of an evaluation determining the frequency, extent and cause of the CSO discharge, including identifying the points of inflow into combined systems.

(2) An evaluation of the water quality impacts of the CSO discharge on receiving waters.

(3) A description of:

(i) The nine minimum controls (NMCs) described in the EPA publication entitled ''Combined Sewer Overflows—Guidance for Nine Minimum Controls'' (EPA publication number 832-B-9-003 (September 1995) as amended or updated) utilized or proposed to be utilized at the facility to minimize or eliminate the CSO discharge impact on receiving water quality.

(ii) A long-term control plan (LTCP) to minimize or eliminate the CSO discharge.

(iii) An implementation schedule for the NMCs and LTCP.

(g) *Large, medium or small municipal separate storm sewers*. The operator of a discharge from a large, medium or small municipal separate storm sewer shall submit in its application the information required to be submitted under 40 CFR Part 122 (relating to EPA administered programs: the National Pollutant Discharge Elimination System).

**Authority**

The provisions of this § 92.21a issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.21a adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.

**Cross References**

This section cited in 25 Pa. Code § 92.2c (relating to minimum sewage and industrial waste treatment requirements).

## § 92.22. Application fees.

(a) A sewage application, except those submitted for single residence sewage treatment plants, shall be accompanied by a check for $500 payable to ''Commonwealth of Pennsylvania.''

(b) Sewage applications for single residence sewage treatment plants require no application fee.

(c) Industrial wastes applications, except those submitted for mining operations, shall be accompanied by a check for $500 payable to ''Commonwealth of Pennsylvania.''

(d) Industrial wastes applications submitted for mining operations shall be accompanied by a check for $250 payable to ''Commonwealth of Pennsylvania.''

(e) An NOI for coverage under a general NPDES permit under § 92.83(a) (relating to inclusion of individual dischargers in general NPDES permits) shall be accompanied by a check payable to ''Commonwealth of Pennsylvania'' in the amount set forth in the public notice for the general permit. The amount may not exceed $500.

(f) Applications for individual NPDES permits for new or expanded CAFOs with more than 1,000 AUEs require an application fee of $500. Other CAFOs require no application fee.

(g) The application fee specified in § 91.22 (relating to fees) applies to all other applications.

**Authority**

The provisions of this § 92.22 amended under section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20); and sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402).

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**Source**

The provisions of this § 92.22 amended through July 20, 1984, effective July 21, 1984, 14 Pa.B. 2672; amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (263060) and (228253).

**Cross References**

This section cited in 25 Pa. Code § 92.13 (relating to reissuance or renewal of permits); 25 Pa. Code § 92.21 (relating to applications); and 25 Pa. Code § 92.83 (relating to inclusion of individual dischargers in general NPDES permits).

## § 92.23. Identity of signatories to NPDES forms.

An NPDES form submitted to the Department shall be signed as follows:

(1) In the case of corporations, by a principal executive officer of at least the level of vice president, or an authorized representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the NPDES form originates.

(2) In the case of a partnership, by a general partner.

(3) In the case of a sole proprietorship, by the proprietor.

(4) In the case of a municipal state, or other public facility, by either a principal executive officer, ranking elected official or other authorized employe.

**Authority**

The provisions of this § 92.23 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.23 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (228253).

**Cross References**

This section cited in 25 Pa. Code § 92.83 (relating to inclusion of individual dischargers in general NPDES permits).

## § 92.24. [Reserved].

## § 92.25. Incomplete applications or NOIs.

The Department will not complete processing of an application or NOI which is incomplete or otherwise deficient. An application for an individual NPDES permit is complete when the Department receives an application form and supplemental information which are completed in accordance with this chapter. An NOI to be covered by an NPDES general permit issued by the Department is complete when the Department receives an NOI setting forth the information specified by the terms of the general permit.

**Authority**

The provisions of this § 92.25 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.25 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (228253).

## APPROVAL OF APPLICATIONS

### § 92.31. Effluent limitations or standards.

(a) Except as set forth in subsection (b), a permit will not be issued for the discharge of pollutants unless the proposed discharge is in compliance with the following, when applicable:

(1) Effluent limitations under sections 301 and 302 of the Federal Act (33 U.S.C.A. §§ 1311 and 1312).

(2) Standards of performance for new sources under section 306 of the Federal Act (33 U.S.C.A. § 1316).

(3) Effluent standards, effluent prohibitions or pretreatment standards under section 307 of the Federal Act (33 U.S.C.A. § 1317).

(4) If the NPDES permit is for the discharge of pollutants into the navigable waters from a vessel or other floating craft, any applicable regulations promulgated by the Secretary of the Department in which the Coast Guard is operating, establishing specifications for safe transportation, handling, carriage, storage and stowage of pollutants.

(5) Any more stringent limitation required to implement any applicable water quality standard. The limitations are to include any legally applicable requirements necessary to implement TMDLs defined and established under Chapter 96 (relating to water quality standards), or section 303(d) of the Federal Act (33 U.S.C.A. § 1313(d)).

(6) Any more stringent legally applicable requirements necessary to comply with a plan approved under section 208(b) of the Federal Act (33 U.S.C.A. § 1288).

(7) Any more stringent limitation established under any other Federal law or regulation.

(8) Any more stringent limitation established under any law of the Commonwealth.

(9) Water quality protection requirements under § 96.3 (relating to water quality protection requirements).

(10) Antidegradation requirements under this title.

(b) Existing dischargers not currently attaining a requirement in subsection (a) may meet the requirements of subsection (a) under a compliance schedule in a reissued, renewed or amended permit which is consistent with § 92.55 (relating to schedules of compliance).



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**Authority**

The provisions of this § 92.31 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.31 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (228253) to (228254).

**Cross References**

This section cited in 25 Pa. Code § 92.55 (relating to schedules of compliance); 25 Pa. Code § 92.59 (relating to documentation for permit conditions); 25 Pa. Code § 92.71 (relating to interim standards); and 25 Pa. Code § 92.81 (relating to general NPDES permits).

## MONITORING BY PERMITTEE

### § 92.41. Monitoring.

(a) The Department may impose reasonable monitoring requirements on any discharge.

(b) Each person who discharges pollutants, with the exception of sewage discharges from single family residence sewage treatment plants, may be required to monitor and report all toxic, conventional, nonconventional and other pollutants in its discharge, at least once a year, and on a more frequent basis if required by a permit condition. The results of this monitoring shall be submitted to the Department as required by a permit condition.

(c) Except for stormwater discharges subject to the requirements of subsection (g), a discharge authorized by an NPDES permit which is not a minor discharge or contains toxic pollutants for which an effluent standard has been established by the Administrator under section 307(a) of the Federal Act shall be monitored by the permittee for at least the following:

(1) Flow (in gallons per day or million gallons per day).

(2) All of the following pollutants:

(i) Pollutants (either directly or indirectly through the use of accepted correlation coefficients or equivalent measurements) which are subject to abatement under the terms and conditions of the permit.

(ii) Pollutants which the Department finds, on the basis of information available to it, could have an impact on the quality of this Commonwealth's waters.

(iii) Pollutants specified by the Administrator, in regulations issued under the Federal Act, as subject to monitoring.

(iv) Pollutants in addition to those in subparagraphs (i)—(iii) which the Regional Administrator requests, in writing to be monitored.

(d) Each effluent flow or pollutant required to be monitored under subsections (b) and (c) shall be monitored at intervals sufficiently frequent to yield data which reasonably characterize the nature of the discharge of the monitored efflu-

ent flow or pollutant. Variable effluent flows and pollutant levels shall be monitored at more frequent intervals than relatively constant effluent flows and pollutant levels which may be monitored at less frequent intervals.

(e) The permittee shall maintain records of the information resulting from any monitoring activities required of it in its NPDES permit as follows:

(1) Records of monitoring activities and results shall include for all samples:

(i) The date, exact place and time of sampling.

(ii) The dates analyses were performed.

(iii) Who performed the analyses.

(iv) The analytical techniques/methods used.

(v) The results of the analyses.

(2) The permittee shall also be required to retain for a minimum of 3 years any records of monitoring activities and results including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records. This period of retention may be extended during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or when requested by the Department or Regional Administrator.

(f) The permittee shall periodically report, at a frequency of at least once per year, on the proper NPDES reporting form monitoring results obtained by a permittee pursuant to monitoring requirements. In addition to the NPDES reporting form, the Department may require submission of other information regarding monitoring results it determines to be necessary.

(g) Requirements to report monitoring results from stormwater discharges associated with industrial activity (including a construction activity), except those subject to an effluent limitation guideline or an NPDES general permit, shall be established in a case-by-case basis with a frequency dependent on the nature and effect of the discharge.

(h) The monitoring requirements under this section shall be consistent with any National monitoring, recording and reporting requirements specified by the Administrator in regulations issued under the Federal Act.

**Authority**

The provisions of this § 92.41 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.41 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (228254) to (228256).

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**Cross References**

This section cited in 25 Pa. Code § 92.81 (relating to general NPDES permits).

## PERMIT CONDITIONS

### § 92.51. Standard conditions in all permits.

The issued NPDES permit shall provide for and insure the following:

(1) That all discharges authorized by the NPDES permit shall be consistent with the terms and conditions of the permit; that facility expansions, production increases or process modifications which result in new or increased discharges of pollutants shall be reported by submission of a new application or, if the discharge does not violate effluent limitations specified in the NPDES permit, by submission to the Department of notice of the new or increased discharges of pollutants, that the discharge of any pollutant more frequently than or at a level in excess of that identified and authorized by the permit shall constitute a violation of the terms and conditions of the permit.

(2) That the permit may be modified, suspended or revoked in whole or in part during its term for cause including, but not limited to, the following:

(i) Violation of any terms or conditions of the permit.

(ii) Obtaining a permit by misrepresentation or failure to disclose fully relevant facts.

(iii) A change in a condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

(3) That the permittee shall permit the Director or an authorized representative, upon presentation of that representative's credentials, to:

(i) Enter upon permittee's premises in which an effluent source is located or in which records are required to be kept under terms and conditions of the permit.

(ii) Have access to and copy records required to be kept under terms and conditions of the permit.

(iii) Inspect monitoring equipment or method required in the permit.

(iv) Sample a discharge of pollutants.

(4) That the permittee shall maintain in good working order and operate as efficiently as possible facilities or systems of control installed by the permittee to achieve compliance with the terms and conditions of the permit.

(5) That if a toxic effluent standard or prohibition, including any schedule of compliance specified in the effluent standard or prohibition, is established under section 301(b)(2)(C) or (D), 304(b) or 307(a) of the Federal Act (33 U.S.C.A. §§ 1311(b)(2)(C) or (D), 1314(b) or 1317(a)) for a toxic pollutant

which is present in the permittee's discharge and the standard or prohibition is more stringent than any limitation upon the pollutant in the NPDES permit, the Department will revise or modify the permit in accordance with the toxic effluent standard or prohibition and so notify the permittee.

(6) That the discharger may not discharge floating materials, oil, grease, scum, foam, sheen and substances which produce color, taste, turbidity or settle to form deposits in concentrations or amounts sufficient to be, or creating a danger of being, inimical to the water uses to be protected or to human, animal, plant or aquatic life.

(7) That dischargers comply with applicable water quality standards.

**Authority**

The provisions of this § 92.51 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.51 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (228256) to (228257).

**Cross References**

This section cited in 25 Pa. Code § 92.81 (relating to general NPDES permits).

## § 92.52. [Reserved].

## § 92.52a. Site specific permit conditions.

The Department may establish and include in an NPDES permit, any permit condition, as needed on a case-by-case basis, to assure protection of surface waters. These conditions may include a requirement to identify and implement the following:

(1) BMPs reasonably necessary to achieve effluent limitations or standards or to carry out the purpose and intent of the Federal Act.

(2) Toxic reduction activities, effluent limitations based on WETT, and other measures which eliminate, or substantially reduce releases of pollutants at their source.

**Authority**

The provisions of this § 92.52a issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.52a adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.



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**§ 92.53. Additional standard conditions in permits for publicly-owned treatment works which serve industrial users.**

(a) Standard conditions in permits for POTWs shall require the permittee to give notice to the Department of the following:

(1) A new introduction of pollutants into the treatment works from a source which would be a new source as defined in section 306 of the Federal Act (33 U.S.C.A. § 1316) if the source was directly discharging pollutants.

(2) Except as to categories and classes of point sources or discharges specified by the Department, a new introduction of pollutants into the treatment works from a source which would be subject to section 301 of the Federal Act (33 U.S.C.A. § 1311) if the source was directly discharging pollutants.

(3) A substantial change in volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the works at the time of issuance of the permit.

(b) The notice shall include information on the quality and quantity of effluent to be introduced into the treatment works and the anticipated impact of the change in the quantity or quality of effluent to be discharged from the publicly owned treatment works.

(c) The permittee shall identify the industrial users served by the POTWs which are subject to pretreatment standards adopted under section 307(b) of the Federal Act (33 U.S.C.A. § 1317(b)) and shall specify the total volume of discharge and estimated concentration of each pollutant discharged into the POTWs by the industrial users. The permittee shall require an industrial user of the treatment works to comply with the reporting requirements of sections 204(b), 307 and 308 of the Federal Act (33 U.S.C.A. §§ 1284(b), 1317 and 1318) and regulations thereunder.

**Authority**

The provisions of this § 92.53 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. § 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510.20).

**Source**

The provisions of this § 92.53 amended February 26, 1988, effective upon delegation of the pretreatment program to the Department by the Environmental Protection Agency, 18 Pa.B. 846; amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (228257) to (228258).

**§ 92.54. [Reserved].**

**§ 92.55. Schedules of compliance.**

(a) With respect to an existing discharge which is not in compliance with the water quality standards and effluent limitations or standards in § 92.31(a) (relating to effluent limitations or standards), the applicant shall be required in the permit to take specific steps to remedy a violation of the standards and limitations in

accordance with a legally applicable schedule of compliance, in the shortest, reasonable period of time, the period not to be inconsistent with the Federal Act. If a deadline specified in section 301 of the Federal Act has passed, any schedule of compliance specified in the permit shall require compliance with final enforceable effluent limits as soon as practicable, but in no case longer than 3 years, unless a court of competent jurisdiction issues an order allowing a longer time for compliance.

(b) If the period of time for compliance specified in subsection (a) exceeds 1 year, a schedule of compliance shall be specified in the permit which will set forth interim requirements and the dates for their achievement. If the time necessary for completion of the interim requirement such as the construction of a treatment facility is more than 1 year and is not readily divided into stages for completion, interim dates shall be specified for the submission of reports of progress towards completion of the interim requirement. For each NPDES permit schedule of compliance, interim dates and the final date for compliance shall, to the extent practicable, fall on the last day of the months of March, June, September and December.

(c) Either before or up to 14 days following each interim date and the final date of compliance, the permittee shall provide the Department with written notice of the permittee's compliance or noncompliance with the interim or final requirement.

**Authority**

The provisions of this § 92.55 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.55 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (228258).

**Cross References**

This section cited in 25 Pa. Code § 92.13 (relating to reissuance or renewal of permits); 25 Pa. Code § 92.21 (relating to applications); and 25 Pa. Code § 92.71a (relating to transfer of permit).

## § 92.56. [Reserved].

## § 92.57. Effluent limitations.

NPDES permits shall specify average and maximum daily quantitative limitations for the level of pollutants in the authorized discharge in terms of weight except pH, temperature, radiation and any other pollutants not appropriately expressed by weight. Permits may in addition impose limitations on frequency of discharge, concentrations or percentage removal, and may include instantaneous maximum limits, BMPs or any other limitations, as necessary.



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**Authority**

The provisions of this § 92.57 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.57 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (228258).

**Cross References**

This section cited in 25 Pa. Code § 92.81 (relating to general NPDES permits).

## § 92.58. [Reserved].

## § 92.59. Documentation for permit conditions.

When an NPDES permit applies the effluent limitations or standards described in § 92.31 (relating to effluent limitations or standards), the Department will prepare documentation demonstrating that the permit will not violate applicable water standards. When an issued NPDES permit applies any more stringent effluent limitation based upon applicable water quality standards, a waste load allocation shall be prepared to insure that the discharge authorized by the permit is consistent with applicable water quality standards.

**Authority**

The provisions of this § 92.59 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.59 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (228259).

**Cross References**

This section cited in 25 Pa. Code § 92.81 (relating to general NPDES permits).

## § 92.60. [Reserved].

## § 92.61. Public notice of permit application and public hearing.

(a) Public notice of every complete application for an NPDES permit will be published by the Department in the *Pennsylvania Bulletin*. The public notice will also be posted by the applicant near the entrance to the premises of the applicant and in nearby places. The contents of public notice of applications for NPDES permits will include at least the following:

(1) The name, address, phone number of agency issuing the public notice.

(2) The name and address of each applicant.

(3) A brief description of each applicant's activities or operations which result in the discharge described in the application.

(4) The name of the waterway to which each discharge is made and a short description of the location of each discharge on the waterway indicating whether the discharge is a new or an existing discharge.

(5) A statement of the tentative determination to issue or deny an NPDES permit for the discharge described in the application. If there is a tentative determination to issue a permit, the determination will include proposed effluent limitations for those effluents proposed to be limited, a proposed schedule of compliance including interim dates and requirements for meeting the proposed effluent limitations and a brief description of any proposed special conditions which will have a significant impact upon the discharge described in the application.

(6) The location of the nearest downstream potable water supply considered in establishing proposed effluent limitations under this title, or a finding that no potable water supply will be affected by the proposed discharge.

(7) A brief description of the procedures for the formulation of final determinations, including the 30-day comment period required by subsection (d) and any other means by which interested persons may influence or comment upon those determinations.

(8) The address and phone number of State or interstate agency premises at which interested persons may obtain further information, request a copy of the fact sheet described in subsection (c) and inspect and copy NPDES forms and related documents.

(9) The antidegradation classification of the receiving surface water under § 93.4c(b)(1)(ii)(B) (relating to implementation of antidegradation requirements).

(b) The Department will organize the tentative determination prepared under subsection (a)(5) into a draft NPDES permit.

(c) For every discharge which has a total volume of more than 500,000 gallons on any day of the year, the Department will prepare and following public notice, will send to any person, upon request, a fact sheet with respect to the application described in the public notice. The contents of the fact sheets will include at least the following information:

(1) A sketch or detailed description of the location of the discharge described in the application.

(2) A quantitative description of the discharge described in the application which includes at least the following:

(i) The rate or frequency of the proposed discharge; if the discharge is continuous, the average daily flow in gallons per day or million gallons per day.

(ii) For thermal discharges subject to limitation under the Federal Act, the average summer and winter temperatures in degrees Fahrenheit.

(iii) The average daily discharge in pounds per day of any pollutants which are present in significant quantities or which are subject to limitations



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or prohibition under section 301, 302, 306 or 307 of the Federal Act (33 U.S.C.A. §§ 1311, 1312, 1316 and 1317) and regulations promulgated thereunder.

(3) The tentative determinations required under subsection (a).

(4) A brief citation, including a brief identification of the uses for which the receiving waters have been classified, of the water quality standards and effluent standards and limitations applied to the proposed discharge.

(5) A fuller description of the procedures for the formulation of final determinations than that given in the public notice including:

(i) The 30-day comment period required by subsection (d).

(ii) Procedures for requesting a public hearing and the nature thereof.

(iii) Other procedures by which the public may participate in the formulation of the final determinations.

(d) There will be a 30-day period following publication of notice during which written comments may be submitted by interested persons before the Department makes its final determination on a permit application. All written comments submitted during the 30-day comment period will be retained by the Department and considered in the formulation of the final determinations with respect to the application. The period for comment may be extended at the discretion of the Department for one additional 15-day period. The Department will provide an opportunity for the applicant, any affected state, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons to request or petition for a public hearing with respect to the application. The request or petition for public hearing shall be filed within the 30 day period allowed for filing of written comments and shall indicate the interest of the party filing the request and the reasons why a hearing is warranted. A hearing will be held if there is a significant public interest, including the filing of requests or petitions for the hearing; in holding the hearing. Instances of doubt should be resolved in favor of holding the hearing. Any hearing brought under this subsection will be held in the geographical area of the proposed discharge or other appropriate area and may, as appropriate, consider related groups of permit applications.

(e) If a public hearing is requested, notice of the hearing will be published in the *Pennsylvania Bulletin*, and in at least one newspaper of general circulation within the geographical area of the discharge and will be sent to all persons or government agencies which received a copy of the notice or the fact sheet for the application. All of the notices of a public hearing will be published at least 30 days before the hearing. Notice of public hearing will include at least the following:

(1) The name, address and phone number of agency holding the public hearing.

(2) The name and address of each applicant whose application will be considered at the hearing.

(3) The name of the waterway to which each discharge is made and a short description of the location of each discharge on the waterway.

(4) A brief reference to the public notice issued for each application, including identification number and date of issuance.

(5) Information regarding the time and location for the hearing.

(6) The purpose of the hearing.

(7) A concise statement of the issues raised by the persons requesting the hearing.

(8) The address and phone number of premises at which interested persons may obtain further information, request a copy of each fact sheet prepared under subsection (c), and inspect and copy NPDES forms and related documents.

(9) A brief description of the nature of the hearing, including the rules and procedures to be followed.

(f) A copy of the notice of an application or a hearing and relevant fact sheets will be mailed to any person or group upon request. A person or group desiring to receive fact sheets, notices of applications, or notices of hearings on a routine basis may request to be placed on a mailing list to receive copies of all notices. The Department will annually review mailing lists, contact recipients and terminate mailings unless the recipient indicates desire to continue receiving the mailings.

(g) When the determination of the Department to issue or deny an NPDES permit is appealed to the EHB, notice of the appeal, and notice of the hearing date, if any, will be published in the *Pennsylvania Bulletin*. In addition, notice of the Department's final action, arrived at either through settlement or as the result of a decision of the Hearing Board, will be published in the *Pennsylvania Bulletin*.

**Authority**

The provisions of this § 92.61 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.61 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (228259) to (228260) and (258037) to (258038).

**Notes of Decisions**

*Posted Notice*

A landowner failed to file a timely appeal after receipt of what was determined to be a properly noticed administrative agency action and as the prescribed time limits for appeals are jurisdictional,

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the Board lost the jurisdiction that it would have otherwise had and the landowner's petition for allowance of an appeal nunc pro tunc was denied. *Grimaud v. Department of Environmental Resources*, 638 A.2d 299 (Pa. Cmwlth. 1994).

**Cross References**

This section cited in 25 Pa. Code § 92.65 (relating to notice to other government agencies); 25 Pa. Code § 92.67 (relating to notice of reissuance of permits); 25 Pa. Code § 92.82 (relating to public notice and public hearing); 25 Pa. Code § 93.4c (relating to implementation of antidegradation requirements); and 25 Pa. Code § 96.7 (relating to public participation).

## § 92.62. [Reserved].

## § 92.63. Public access to information.

(a) Any NPDES forms and public comment will be available to the public for inspection and copying.

(b) The Department may protect any information, other than effluent data, contained in NPDES forms, or other records, reports or plans pertaining to the NPDES permit program as confidential upon a showing by any person that the information is not a public record for the purposes of section 607 of the State Act (35 P. S. § 691.607). Documents which may be protected as confidential and are not public records are those which if made public would divulge an analysis of chemical and physical properties of coal (excepting information regarding the mineral or elemental content which is potentially toxic in the environment), and those which are confidential commercial information or methods or processes entitled to protection as trade secrets under State or Federal law. If, however, the information being considered for confidential treatment is contained in an NPDES form, the Department will forward the information to the Regional Administrator for concurrence in any determination of confidentiality. If the Regional Administrator does not concur that some or all of the information being considered for confidential treatment merits the protection and so notifies the Department in writing, the Department will make available to the public that information determined by the Regional Administrator in consultation with the EPA Office of General Counsel not entitled to protection in accordance with 40 CFR Part 2 (relating to public information).

(c) Information accorded confidential status, whether or not contained in an NPDES form, will be disclosed, upon request, to the Regional Administrator, or an authorized representative, who shall maintain the disclosed information as confidential.

(d) Facilities for the inspection of information relating to NPDES permits will be provided and State employes will honor requests for inspection promptly without undue requirements or restrictions. Either a machine or device for the copying of papers and documents will be available for a reasonable fee, or other copying facilities or services will be provided.

**Authority**

The provisions of this § 92.63 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.63 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (258038) to (258039).

**Cross References**

This section cited in 25 Pa. Code § 92.67 (relating to notice of reissuance of permits); and 25 Pa. Code § 93.4c (relating to implementation of antidegradation requirements).

## § 92.64. [Reserved].

## § 92.65. Notice to other government agencies.

The Department will do the following:

(1) Provide a subscription to the *Pennsylvania Bulletin* for any other states whose waters may be affected by the issuance of an NPDES permit, to any interstate agency having water quality control authority over water which may be affected by the issuance of an NPDES permit, and to all Pennsylvania District Engineers of the Army Corps of Engineers.

(2) At the time of issuance of public notice under § 92.61(a) (relating to public notice of permit application and public hearing), transmit to any other states, whose waters may be affected by the issuance of an NPDES permit a copy of fact sheets prepared under § 92.61(c). Upon request, the Department will provide the states with a copy of the application and a copy of the draft permit prepared under § 92.61(b). Each affected state shall be afforded an opportunity to submit written recommendations to the Department and to the Regional Administrator which the Department may incorporate into the permit if issued. If the Department decides not to incorporate any written recommendations thus received, it will provide to the affected states and to the Regional Administrator a written explanation of its reasons for deciding not to accept any of the written recommendations.

(3) At the time of issuance of public notice under § 92.61(a), transmit to any interstate agency having water quality control authority over waters which may be affected by the issuance of a permit a copy of fact sheets prepared under § 92.61(c). The interstate agency shall have the same opportunity to submit recommendations and to receive explanations in paragraph (2).

(4) At the time of issuance of public notice under § 92.61(a), transmit to the appropriate District Engineer of the Army Corps of Engineers a copy of fact sheets prepared under § 92.61(c). An NPDES permit will not be issued if a district engineer objects to the issuance of the permit because anchorage and navigation of any of the surface waters would be impaired.



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(5) Provide a subscription to the *Pennsylvania Bulletin* and transmit fact sheets prepared under § 92.61(c) for any other Federal, State or local agency upon request, and provide these agencies an opportunity to respond or comment.

**Authority**

The provisions of this § 92.65 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.65 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (258039) to (258040).

**Cross References**

This section cited in 25 Pa. Code § 92.67 (relating to notice of reissuance of permits); and 25 Pa. Code § 93.4c (relating to implementation of antidegradation requirements).

## § 92.66. [Reserved].

## § 92.67. Notice of reissuance of permits.

Notice of reissuance of permits under § 92.13 (relating to reissuance of permits) shall be accomplished in the same manner specified in §§ 92.61, 92.63 and 92.65 (relating to public notice of permit application and public hearing; public access to information; and notice to other government agencies).

## MISCELLANEOUS

## § 92.71. Interim standards.

Prior to promulgation by the Administrator of effluent standards and limitations pursuant to sections 301, 302, 306 and 307 of the Federal Act (33 U.S.C.A. §§ 1311, 1312, 1316 and 1317), for purposes of compliance with § 92.31 (relating to effluent standards) permit conditions governing allowable discharges shall be designed to insure compliance with the provisions of the Federal Act.

**Authority**

The provisions of this § 92.71 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402).

**Source**

The provisions of this § 92.71 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (258040).

## § 92.71a. Transfer of permit.

An NPDES permit may be automatically transferred to a new permittee if the following conditions are met:

(1) The current permittee notifies the Department at least 30 days in advance of the proposed transfer date.

(2) The notice includes a written agreement between the existing permittee and the new permittee containing a specific date for transfer of permit responsibilities, coverage and liability between them.

(3) The Department does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the transfer date specified in the agreement required under paragraph (2).

(4) The new permittee is in compliance with existing Department issued permits, regulations, orders and schedules of compliance, or that any noncompliance with the existing permits has been resolved by an appropriate compliance action or by the terms and conditions of the permit (including a compliance schedule set forth in the permit), consistent with § 92.55 (relating to schedules of compliance) and other appropriate Department regulations.

**Authority**

The provisions of this § 92.71a issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.71a adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.

## § 92.72. [Reserved].

## § 92.72a. Cessation of discharge.

If a permittee intends to cease operations or cease a discharge for which a permit has been issued under this chapter, the permittee shall notify the Department in writing of its intent at least 90 days prior to the cessation of operations or the cessation of the discharge, unless permission has been granted for a later date by the Department.

**Authority**

The provisions of this § 92.72a issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.72a adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.



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## § 92.73. Prohibition of certain discharges.

A permit will not be issued, modified, renewed or reissued under any of the following conditions:

(1) Authorizing the discharge of any radiological, chemical, biological warfare agent or high-level radioactive waste.

(2) Authorizing any discharge which is in conflict with a plan or amendment thereto approved under section 208(b) of the Federal Act (33 U.S.C.A. § 1288(b)).

(3) When the applicant is required to obtain a State water quality certification or other appropriate certification under section 401 of the Federal Act (33 U.S.C.A. § 1341) and that certification has not been obtained or waived.

(4) When the Regional Administrator has objected to the issuance of a permit.

(5) When the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected states.

(6) When, in the judgment of the Administrator, a district engineer of the Army Corps of Engineers or the Department, anchorage and navigation in or on any surface waters would be substantially impaired by the discharge.

(7) To a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards.

(8) For a sanitary sewer overflow, except as provided for in the Federal regulations.

**Authority**

The provisions of this § 92.73 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.73 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (258040).

**Cross References**

This section cited in 25 Pa. Code § 92.2c (relating to minimum sewage and industrial waste treatment requirements).

## § 92.74. [Reserved].

## § 92.75. Transmission of NPDES forms.

The Department will transmit to the Regional Administrator and the National data bank complete copies of all NPDES forms and other information received, and in the manner the Department and the Regional Administrator shall agree.

**Authority**

The provisions of this § 92.75 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.75 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (228265).

**Cross References**

This section cited in 25 Pa. Code § 92.77 (relating to requirement of additional data in certain cases).

## § 92.76. [Reserved].

## § 92.77. Requirement of additional data in certain cases.

If, after transmission of information to the Administrator under § 92.75 (relating to transmission of NPDES forms), the Administrator notifies the Department that any discharge which has a total volume of less than 50,000 gallons on every day of the year is not a minor discharge, the Department will require the applicant for the discharge to submit additional NPDES forms or other information requested by the Regional Administrator in the notification to the Department.

**Authority**

The provisions of this § 92.77 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.77 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (228265).

## § 92.78. Transmission of issued NPDES permits.

The Department shall transmit to the Regional Administrator a copy of every issued NPDES permit immediately following issuance, along with any and all terms, conditions, requirements, or documents which are a part of such permit or which affect the authorization by the permit of the discharge of pollutants.

## § 92.79. Reports of violations.

The Department will prepare a quarterly report listing permittees who have violated final or interim requirements in their NPDES permits, stating the nature of the violation, describing any enforcement action which is proposed or has been taken, and giving a brief description, if appropriate, of any circumstances which explain the violation. A copy of the report shall be forwarded on the last day of the months of February, May, August and November to the EPA Regional Administrator.



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**Authority**

The provisions of this § 92.79 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.79 amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (228265).

## NPDES PERMITS

### § 92.81. General NPDES permits.

(a) *Coverage and purpose*. The Department may issue a general NPDES permit, in lieu of issuing individual NPDES permits, for a clearly and specifically described category of point source discharges, if the point sources meet the following conditions:

(1) Involve the same, or substantially similar, types of operations.

(2) Discharge the same types of wastes.

(3) Require the same effluent limitations or operating conditions, or both.

(4) Require the same or similar monitoring.

(5) Do not discharge toxic or hazardous pollutants as defined in sections 307 and 311 of the Federal Act (33 U.S.C.A. §§ 1317 and 1321) or any other substance which—because of its quantity; concentration; or physical, chemical or infectious characteristics—may cause or contribute to an increase in mortality or morbidity in either an individual or the total population, or pose a substantial present or future hazard to human health or the environment when discharged into the surface waters.

(6) In the opinion of the Department, are more appropriately controlled under a general permit than under individual permits.

(7) Individually and cumulatively do not have the potential to cause significant adverse environmental impact.

(8) Do not discharge to waters classified as ''special protection'' under Chapter 93 (relating to water quality standards).

(b) *Administration of general permits*. General permits may be issued, amended, suspended, revoked, reissued or terminated under this chapter. Issuance of a general NPDES permit does not exempt a person from compliance with this title. General NPDES permits shall have a fixed term not to exceed 5 years, and shall comply with §§ 92.31, 92.41, 92.51, 92.57 and 92.59 and other applicable provisions of this title.

(c) *Department specification*. The Department may specify in the general permit that an eligible person who has submitted a timely and complete notice of intent is authorized to discharge in accordance with the terms of the permit under one of the following:

(1) After a waiting period following receipt of the notice of intent by the Department as specified in the general permit.

(2) Upon receipt of notification of approval of coverage under a general NPDES permit from the Department.

(d) *Department notification.* The Department will, as applicable, notify a discharger that it is or is not covered by a general permit. A discharger so notified may request an individual permit.

**Authority**

The provisions of this § 92.81 issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.81 adopted July 20, 1984, effective July 21, 1984, 14 Pa.B. 2672; amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (228266).

**Cross References**

This section cited in 25 Pa. Code § 92.82 (relating to public notice and public hearing); 25 Pa. Code § 92.83 (relating to inclusion of individual dischargers in general NPDES permits); and 25 Pa. Code § 271.902 (relating to permits and direct enforceability).

## § 92.82. Public notice and public hearing.

(a) Public notice of every proposed general NPDES permit will be published by the Department in the *Pennsylvania Bulletin*. The contents of the public notice will include at least the following:

(1) The name, address and phone number of the agency issuing the public notice.

(2) A clear and specific description of the category of point source discharges eligible for coverage under the proposed general NPDES permit.

(3) The standards in § 92.81(a) (relating to general NPDES permits), and a brief description of the reasons for the Department's determination that the category of point source discharges is eligible for coverage under a general NPDES permit in accordance with these standards.

(4) A brief description of the terms and conditions of the proposed general NPDES permit, including applicable effluent limitations, BMPs and special conditions.

(5) A brief description of the procedures for the formulation of final determinations, and other means by which interested persons may influence or comment on those determinations. Except as provided in § 92.81(c) and (d) (relating to general NPDES permits), the procedures shall comply, at a minimum, with the public notice and hearing requirements in § 92.61(c)—(e) (relating to public notice of permit application and public hearing).



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(6) The address and phone number of Commonwealth agency premises at which interested persons may obtain further information and a copy of the proposed general NPDES permit.

(7) The NOI fee for coverage under the general NPDES permit.

(b) Upon issuance of a general permit, the Department will place a notice in the *Pennsylvania Bulletin* of the availability of the general permit.

**Authority**

The provisions of this § 92.82 issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.82 adopted July 20, 1984, effective July 21, 1984, 14 Pa.B. 2672; amended July 20, 1984, effective July 21, 1984, 14 Pa.B. 3364; amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (228266) to (228267).

**Cross References**

This section cited in 25 Pa. Code § 92.1 (relating to definitions); and 25 Pa. Code § 271.902 (relating to permits and direct enforceability).

## § 92.83. Inclusion of individual dischargers in general NPDES permits.

(a) *NOI for coverage under the general permit.*

(1) Eligible dischargers, who wish to be covered by the general permit, shall file an NOI which complies with §§ 92.21(b)(4) and (5), 92.22 and 92.23 (relating to applications; application fees; and identity of signatories to NPDES forms). At a minimum, the NOI shall identify each point source for which coverage under the general permit is requested; demonstrate that each point source meets the eligibility requirements for inclusion in the general permit; demonstrate that the discharge from the point sources, individually or cumulatively, will not result in a violation of an applicable water quality standard established under Chapter 93 (relating to water quality standards) and include other information the Department may require. The NOI shall be accompanied by a signed and notarized statement that the discharger agrees to accept all conditions and limitations imposed by the general NPDES permit.

(2) If the NOI is acceptable for one or more point sources, the Department, except as provided in § 92.81(c) and (d) (relating to general permits), will formally notify the discharger of the coverage for each point source, and shall transmit a copy of the general permit to each discharger covered. Each copy of the general permit issued to a discharger shall bear an individual identification number.

(3) The Department will indicate in the publication of the notice of availability of a general permit in the *Pennsylvania Bulletin* whether it will provide one of the following:

(i) Notice in the *Pennsylvania Bulletin* of each NOI under an applicable general NPDES permit, and of each approval for coverage under a general NPDES permit.

(ii) Notice of every approval of coverage only.

(b) *Denial of coverage*. The Department will deny any NOI when one or more of the following conditions exist:

(1) The discharge, individually or in combination with other similar discharges, is or has the potential to be a contributor of pollution, as defined in the State Act, which is more appropriately controlled under an individual permit.

(2) The discharger is not, or will not be, in compliance with any of the conditions of the general permit.

(3) The applicant has failed and continues to fail to comply or has shown a lack of ability or intention to comply with a regulation, permit, schedule of compliance or order issued by the Department.

(4) A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source.

(5) Categorical point source effluent limitations are promulgated by the EPA for those point sources covered by the general permit.

(6) The discharge is not, or will not, result in compliance with applicable effluent limitation or water quality standard.

(7) Other point sources at the facility require issuance of an individual NPDES permit, and issuance of both an individual and a general NPDES permit for the facility would constitute an undue administrative burden on the Department.

(8) The Department determines that the action is necessary for any other reason to ensure compliance with the Federal Act, the State Act or this title.

(9) The discharge would be to waters classified as ''special protection'' under Chapter 93.

(c) *Requiring an individual permit*. The Department may amend, revoke, suspend or terminate previously issued coverage under a general NPDES permit, and require the point source discharger to apply for and obtain an individual NPDES permit for any of the reasons in subsection (b). An interested person may petition the Department to take action under this subsection. Upon notification by the Department under this subsection that an individual NPDES permit is required for a point source, the discharger shall submit a complete NPDES application, in conformance with this chapter, within 90 days of receipt of the notification, unless the discharger is already in possession of a valid individual NPDES permit. Failure to submit the application within 90 days shall result in automatic termination of coverage of the applicable point sources under the general permit. Timely submission of a complete application shall result in continuation of cov-



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erage of the applicable point sources under the general permit, until the Department takes final action on the pending individual permit application.

(d) *Action of the Department*. Action of the Department denying coverage under a general permit under subsection (b), or requiring an individual NPDES permit under subsection (c), is not a final action of the Department until the discharger submits and the Department takes final action on an individual NPDES permit application.

(e) *Termination of general permit*. When an individual NPDES permit is issued for a point source which is covered under a general NPDES permit, the applicability of the general permit to that point source is automatically terminated on the effective date of the individual permit.

(f) *Coverage under general permit*. A point source excluded from a general permit solely because it already has an individual permit may submit an NOI under subsection (a). If the NOI is acceptable, the Department will revoke the individual permit and notify the source that it is covered under the general permit.

**Authority**

The provisions of this § 92.83 amended under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.83 adopted July 20, 1984, effective July 21, 1984, 14 Pa.B. 2672; amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (228267) to (228269).

**Cross References**

This section cited in 25 Pa. Code § 92.1 (relating to definitions); 25 Pa. Code § 92.22 (relating to application fees); and 25 Pa. Code § 271.902 (relating to permits and direct enforceability).

## CIVIL PENALTIES FOR VIOLATION OF NPDES PERMITS

### § 92.91. Applicability.

This section and §§ 92.92—92.94 apply to civil penalty assessments by the Department under section 605(a) of the State Act (35 P. S. § 691.605(a)).

**Authority**

The provisions of this § 92.91 issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.91 adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.

**Cross References**

This section cited in 25 Pa. Code § 92.94 (relating to disbursement of funds pending resolution of appeal).

## § 92.92. Method of seeking civil penalty.

The Department may do either one of the following:

(1) File a complaint for civil penalties before the EHB.

(2) Assess a civil penalty, after hearing under § 92.93 (relating to procedure for civil penalty assessments).

**Authority**

The provisions of this § 92.92 issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.92 adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.

**Cross References**

This section cited in 25 Pa. Code § 92.91 (relating to applicability); and 25 Pa. Code § 92.94 (relating to disbursement of funds pending resolution of appeal).

## § 92.93. Procedure for civil penalty assessments.

(a) The Department, if it assesses a civil penalty for a State Act violation, will serve a copy of the proposed civil penalty assessment on the discharger. Service will be by registered or certified mail, or by personal service. If the mail is tendered at the address in the permit, or at an address where the discharger is located, and delivery is refused, or mail is not collected, the requirements of this section shall be deemed to have been complied with upon the tender.

(b) The discharger who has been served with a proposed assessment in accordance with subsection (a) has 30 days to request that the Department hold an informal hearing on the proposed assessment by serving the Department by registered or certified mail with the request. If no timely request for an informal hearing is submitted, the failure to submit a timely request will operate as a waiver of the opportunity for a hearing, and the proposed assessment will become a final assessment of the Department upon the expiration of the 30 day period unless the Department determines to hold a hearing on the proposed assessment under the procedures in subsection (c).

(c) If a timely request for hearing on the proposed assessment is received by the Department, the Department will assign a representative to hold an informal hearing regarding the assessment. The informal hearing will not be governed by requirements for formal adjudicatory hearings. The Department will establish a hearing date and notify the person requesting the hearing in accordance with the service procedures in subsection (a) and post notice of the time and place of the hearing at the Department office where the hearing is to be held at least 5 days prior to the hearing. The person requesting the hearing has the right to attend and participate in the hearing and to be represented by counsel. The Department will consider the relevant information presented and either affirm, raise, lower or



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vacate the proposed assessment. The Department representative's decision will constitute the Department's final assessment.

(d) The person subject to a final assessment by the Department may contest the penalty assessment by filing a timely appeal with the EHB.

**Authority**

The provisions of this § 92.93 issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.93 adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.

**Cross References**

This section cited in 25 Pa. Code § 92.91 (relating to applicability); and 25 Pa. Code § 92.94 (relating to disbursement of funds pending resolution of appeal).

## § 92.94. Disbursement of funds pending resolution of appeal.

(a) If the person subject to a final assessment fails to file a timely appeal to the EHB as provided in the Environmental Hearing Board Act (35 P. S. §§ 7511—7516), the penalty assessed shall become due and payable upon expiration of the time allowed to file an appeal. If the person fails to pay, the amount shall be collected in the manner provided by section 605 of the State Act. The Department may preclude persons who fail to pay in full from obtaining or renewing any Department permits.

(b) If the final decision in the administrative and judicial review process results in an order increasing the penalty, the person to whom the notice or order was issued shall pay the amount specified in the final decision to the Department within 30 days after the order is mailed to the person. If the person fails to pay the amount specified in the final decision, the amount shall be collected in the manner provided by law. The Department may preclude persons who fail to pay in full from obtaining or renewing any Department permits.

(c) Upon completion of the administrative and judicial review process, any funds collected under §§ 92.91—92.93 (relating to applicability; method of seeking civil penalty; and procedure for civil penalty assessments) and this section will be deposited into the Clean Water Fund.

**Authority**

The provisions of this § 92.94 issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 92.94 adopted November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059.

**Cross References**

This section cited in 25 Pa. Code § 92.91 (relating to applicability).

[Next page is 93-1.]

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## CHAPTER 262a. STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE


| Subchap. | | Sec. |
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| A. | GENERAL | 262a.10 |
| B. | MANIFEST | 262a.20 |
| C. | PRETRANSPORT REQUIREMENTS | 262a.34 |
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| E. | EXPORTS OF HAZARDOUS WASTE | 262a.55 |
| H. | TRANSFRONTIER SHIPMENTS OF HAZARDOUS WASTE FOR RECOVERY WITHIN THE OECD | 262a.80 |
| I. | SOURCE REDUCTION STRATEGY | 262a.100 |


**Authority**

The provisions of this Chapter 262a issued under sections 105, 401—403 and 501 of the Solid Waste Management Act (35 P. S. §§ 6018.105, 6018.401—6018.403 and 6018.501); sections 105, 402 and 501 of The Clean Streams Law (35 P. S. §§ 691.105, 691.402 and 691.501); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

**Source**

The provisions of this Chapter 262a adopted April 30, 1999, effective May 1, 1999, 29 Pa.B. 2367, unless otherwise noted.

**Cross References**

This chapter cited in 25 Pa. Code § 252.3 (relating to scope); 25 Pa. Code § 261a.7 (relating to residues of hazardous waste in empty containers); 25 Pa. Code § 266b.11 (relating to waste management for universal waste mercury-containing devices); 25 Pa. Code § 266b.31 (relating to waste management for universal waste mercury-containing devices); 25 Pa. Code § 270a.60 (relating to permits by rule); 25 Pa. Code § 272.541 (relating to basic requirements); 25 Pa. Code § 272.551 (relating to household hazardous waste transportation, storage and disposal; and 25 Pa. Code § 298.10 (relating to applicability).

### Subchapter A. GENERAL


Sec.
262a.10. Incorporation by reference, purpose, scope and applicability.
262a.11. Hazardous waste determination.
262a.12. EPA identification numbers.


### § 262a.10. Incorporation by reference, purpose, scope and applicability.

Except as expressly provided in this chapter, 40 CFR Part 262 and its appendices (relating to standards applicable to generators of hazardous waste) are incorporated by reference. In 40 CFR 262.10(g) (relating to purpose, scope and applicability) the term ‘‘section 3008 of the act’’ is replaced with ‘‘Article VI of the Solid Waste Management Act (35 P. S. §§ 6018.601—6018.617).’’

**Cross References**

This section cited in 25 Pa. Code § 272.541 (relating to collection contractor).

## § 262a.11. Hazardous waste determination.

In addition to the requirements incorporated by reference, a determination that a waste is not hazardous under 40 CFR 262.11 (relating to hazardous waste determination) does not preclude the Department from determining the waste to be hazardous, using the characteristics and testing methods set forth in 40 CFR Part 261 (relating to identification and listing of hazardous waste).

**Source**

The provisions of this § 262a.11 adopted December 13, 2002, effective December 14, 2002, 32 Pa.B. 6102.

## § 262a.12. EPA identification numbers.

(a) Regarding the requirements incorporated by reference, the substitution of terms in § 260a.3 (relating to terminology and citations related to Federal regulations) does not apply to the incorporation by reference of 40 CFR 262.12 (relating to EPA identification numbers).

(b) In addition to the requirements incorporated by reference:

(1) A generator shall submit a subsequent notification to the Department if:

(i) The generator activity moves to another location.

(ii) The generator facility's designated contact person changes.

(iii) The ownership of the generator facility changes.

(iv) The type of regulated activity that takes place at the generator facility changes.

(v) The generator's facility class changes, except when the facility class change is temporary.

(2) A generator shall offer a shipment of hazardous waste only to a transporter with a valid license issued by the Department.

**Source**

The provisions of this § 262a.12 amended December 13, 2002, effective December 14, 2002, 32 Pa.B. 6102. Immediately preceding text appears at serial page (284432).

**Cross References**

This section cited in 25 Pa. Code § 272.541 (relating to collection contractor).

## Subchapter B. MANIFEST

Sec.

262a.20. General requirements.
262a.21. Acquisition of manifests.
262a.22. Number of copies.
262a.23. Use of the manifest.



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## § 262a.20. General requirements.

40 CFR 262.20 (b) and (c) (relating to general requirements) is not incorporated by reference. In addition to the requirements incorporated by reference, a generator shall:

(1) Complete the manifest form in its entirety and distribute manifest copies in accordance with the instructions for the manifest, except that generators need not submit copies of manifests to the Department unless required by § 262a.23(a)(2) (relating to use of the manifest).

(2) List no more than four waste streams on one manifest. If the generator is transporting or offering for transportation more than four different hazardous waste streams for offsite treatment, storage or disposal, the generator shall complete additional manifest forms for the remaining waste streams in the shipment, unless the waste stream is a lab pack.

(3) Complete a continuation sheet, EPA Form 8700-22a, when there are more than two transporters, or for lab packs with more than four different waste streams in one shipment.

(4) Ensure that the required information on all copies, including photocopies, of the manifest is legible to the Department, transporter and designated facility.

(5) A generator shall designate only one permitted facility to handle the waste described on the manifest.

**Source**

The provisions of this § 262a.20 amended December 13, 2002, effective December 14, 2002, 32 Pa.B. 6102. Immediately preceding text appears at serial pages (284432) to (284433).

**Cross References**

This section cited in 25 Pa. Code § 263a.21 (relating to compliance with the manifest); and 25 Pa. Code § 270a.60 (relating to permits-by-rule).

## § 262a.21. Acquisition of manifests.

(a) The substitution of terms in § 260a.3(a)(5) (relating to terminology and citations related to Federal regulations) does not apply to 40 CFR 262.21 (relating to acquisition of manifests).

(b) In addition to the requirements incorporated by reference, a generator shipping hazardous waste to a facility in a state that does not require use of its own state manifest shall use the Department's manifest.

**Source**

The provisions of this § 262a.21 amended December 13, 2002, effective December 14, 2002, 32 Pa.B. 6102. Immediately preceding text appears at serial page (284433).

## § 262a.22. Number of copies.

(a) 40 CFR 262.22 (relating to number of copies) is not incorporated by reference.

(b) The manifest shall consist of at least the number of copies which will provide the generator, each transporter and the owner or operator of the designated facility with one copy each for their records and which will allow the designated facility to send copies to the generator, generator state and destination state.

## § 262a.23. Use of the manifest.

(a) In addition to the requirements incorporated by reference:

(1) The generator shall print or type the generator's name and enter the date of shipment in the designated space on the manifest.

(2) If the out-of-State manifest does not include a generator-state copy to be submitted to the Department by the out-of-State designated facility, the generator shall submit a complete, legible copy, such as a photocopy, of the manifest as signed by the generator, all transporters and the designated facility. This copy shall be sent within 10 days of the generator's receipt of its signed copy from the designated facility.

(3) The generator shall obtain the printed or typed name of the transporter on the manifest.

(4) A generator may not use a hazardous waste manifest which has either a preprinted Manifest Document Number or preprinted Manifest Tracking Number that has been altered by anyone other than the printer of the manifest.

(b) The substitution of terms in § 260a.3(a)(5) (relating to terminology and citations related to Federal regulations) does not apply to 40 CFR 262.23(e) (relating to notification of shipments of hazardous waste to a facility in an authorized state which has not yet received authorization to regulate a newly designated hazardous waste).

**Source**

The provisions of this § 262a.23 amended December 13, 2002, effective December 14, 2002, 32 Pa.B. 6102. Immediately preceding text appears at serial page (284433).

**Cross References**

This section cited in 25 Pa. Code § 262a.20 (relating to general requirements).

### Subchapter C. PRETRANSPORT REQUIREMENTS

Sec.
262a.34. Accumulation time.



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### § 262a.34. Accumulation time.

In addition to the requirements incorporated by reference, a generator who accumulates hazardous waste onsite as specified in 40 CFR 262.34(a)(1)(i) (relating to accumulation time) shall also comply with Chapter 265a, Subchapter I (relating to use and management of containers).

**Source**

The provisions of this § 262a.34 adopted December 13, 2002, effective December 14, 2002, 32 Pa.B. 6102.

## Subchapter D. RECORDKEEPING AND REPORTING

Sec.
262a.41. Biennial report.
262a.42. Exception reporting.
262a.43. Additional reporting.

**Cross References**

This subchapter cited in 25 Pa. Code § 272.541 (relating to basic requirements).

### § 262a.41. Biennial report.

Regarding the requirements incorporated by reference, the following replaces the introductory paragraph in 40 CFR 262.41 (relating to biennial report):

A generator who ships hazardous waste offsite to a treatment, storage or disposal facility within the United States shall prepare and submit a single copy of a biennial report to the Department by March 1 of each even numbered year. The biennial report shall be submitted on EPA Form 8700—13A as modified by the Department, shall cover generator activities during the previous year and shall include the following information:

### § 262a.42. Exception reporting.

Regarding the requirements incorporated by reference, the phrase ''for the region in which the generator is located'' contained in 40 CFR 262.42 (relating to exception reporting) is not incorporated by reference.

### § 262a.43. Additional reporting.

In addition to the requirements incorporated by reference:

(1) Spills and discharges which are in amounts less than the reportable quantities, which do not result in discharges into waters of this Commonwealth, and which are managed according to an approved contingency plan, need not be reported.

(2) The reportable quantities are:

(i) Liquid hazardous waste or liquids that become hazardous waste when spilled or discharged shall be reported to the Department when the quantity spilled or discharged equals or exceeds the reportable quantity for the waste contained in 40 CFR 302.4 (relating to designation of hazardous substances) or 10 gallons, whichever is more stringent. Liquids are flowable substances which contain less than 20% solids by dry weight. Flowable refers to flow in the sense of pourable as a liquid.

(ii) Solid hazardous waste or solids that become hazardous wastes when spilled or discharged shall be reported to the Department when the quantity spilled or discharged equals or exceeds the reportable quantity for the waste contained in 40 CFR 302.4 or 500 pounds, whichever is more stringent.

(3) A discharge or spill into waters of this Commonwealth shall be reported regardless of quantity spilled or discharged.

(4) In the event of a discharge or spill equal to or greater than the reportable quantity of hazardous waste or material that becomes a hazardous waste when spilled or discharged, the generator shall take appropriate immediate action to protect the health and safety of the public and the environment and immediately notify the Department by telephone at (800) 541-2050 with the following information:

(i) The name of the person reporting the spill.

(ii) The name and identification number of the generator.

(iii) The phone number where the person reporting the spill can be reached.

(iv) The date, time and location of the spill.

(v) A brief description of the incident.

(vi) For each material involved in the spill:

(A) The shipping name, hazard class and U.N. Number.

(B) The estimated quantity of material spilled.

(vii) The extent of contamination of land, water or air, if known.

(5) If a discharge or spill of hazardous waste, or hazardous material that becomes a hazardous waste when spilled or discharged, occurs during onsite unloading, loading, storage or plan operation, and a Departmental official acting within the scope of his official responsibilities determines that immediate removal of the material is necessary to protect the health and safety of the public and the environment, that official may authorize in writing the removal of the material by transporters who do not have identification numbers or license and without the preparation of a manifest.

(6) A generator shall clean up a spill or discharge of hazardous waste, or material that becomes a hazardous waste when spilled or discharged, that occurs during onsite unloading, loading, storage or plan operation, and take actions that may be required or approved by the Department so that the discharge or spill no longer presents a hazard to the health and safety of the public or environment.



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(7) In addition, the generator shall file a written report on a spill or discharge of a reportable hazardous waste or material that becomes a hazardous waste when spilled or discharged, with the Department within 15 days after the incident, and supply the Department with other information it may require or request that pertains to the discharge. The report on the spill or discharge shall be entitled "Hazardous Waste Spill Report" and shall contain the following information:

(i) The name, address and identification number of the generator and the date, time and location of the incident.

(ii) A brief description of the circumstances causing the incident.

(iii) A description of each of the hazardous wastes or materials that become hazardous wastes when spilled or discharged involved in the incident, including the estimated quantity spilled by weight or volume.

(iv) A legible copy of the manifest document, if applicable.

(v) A description of a contamination of land, water or air that has occurred due to the incident.

(vi) A description of the actions the generator intends to take to prevent a similar occurrence in the future.

**Source**

The provisions of this § 262a.43 adopted December 13, 2002, effective December 14, 2002, 32 Pa.B. 6102.

## Subchapter E. EXPORTS OF HAZARDOUS WASTE

Sec.
262a.50. Applicability
262a.55—262a.57. [Reserved].

### § 262a.50. Applicability.

Relative to the requirements incorporated by reference, the substitution of terms in § 260a.3 (relating to terminology and citations related to Federal regulations) does not apply to the incorporation by reference of 40 CFR Part 262, Subpart E (relating to exports of hazardous waste).

**Source**

The provisions of this § 262a.50 adopted December 13, 2002, effective December 14, 2002, 32 Pa.B. 6102.

### §§ 262a.55—262a.57. [Reserved].

**Source**

The provisions of these §§ 262a.55—262a.57 reserved December 13, 2002, effective December 14, 2002, 32 Pa.B. 6102. Immediately preceding text appears at serial page (284434).

## Subchapter H. TRANSFRONTIER SHIPMENTS OF HAZARDOUS WASTE FOR RECOVERY WITHIN THE OECD

Sec.
262a.80. Applicability.

### § 262a.80. Applicability.

Relative to the requirements incorporated by reference, the substitution of terms in § 260a.3 (relating to terminology and citations related to Federal regulations) does not apply to the incorporation by reference of 40 CFR Part 262, Subpart H (relating to transfrontier shipments of hazardous waste for recovery within the OECD).

## Subchapter I. SOURCE REDUCTION STRATEGY

Sec.
262a.100. Source reduction strategy.

**Cross References**

This subchapter cited in 25 Pa. Code § 262a.34 (relating to accumulation time); and 25 Pa. Code § 272.541 (relating to collection contractor).

### § 262a.100. Source reduction strategy.

(a) By January 17, 1994, a person or municipality that generates hazardous waste shall prepare a source reduction strategy in accordance with this section. Except as otherwise provided in this article, the strategy shall be signed by the person or municipality that generated the waste, be maintained on the premises where the waste is generated, be available on the premises for inspection by any representative of the Department and be submitted to the Department upon request. The strategy may designate certain production processes as confidential. This confidential information may not be made public without the expressed written consent of the generator. Unauthorized disclosure is subject to appropriate penalties as provided by law.

(b) For each type of waste generated, the strategy shall include:

(1) A description of the source reduction activities conducted by the person or municipality in the 5 years prior to the date that the strategy is required to be prepared. The description shall quantify reductions in the weight or toxicity of waste generated on the premises.

(2) A statement of whether the person or municipality established a source reduction program. This program shall identify the methods and procedures that the person or municipality will implement to achieve a reduction in the weight or toxicity of waste generated on the premises, quantify the projected



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reduction in weight or toxicity of waste to be achieved by each method or procedure and specify when each method or procedure will be implemented.

(3) If the person or municipality has not established a source reduction program as described in paragraph (2), it shall develop a strategy including the following:

(i) A waste stream characterization, including source, hazards, chemical analyses, properties, generation rate, management techniques and management costs.

(ii) A description of potential source reduction options.

(iii) A description of how the options were evaluated.

(iv) An explanation of why each option was not selected.

(c) The strategy required by this section shall be updated when either of the following occurs:

(1) There is a significant change in a type of waste generated on the premises or in the manufacturing process, other than a change described in the strategy as a source reduction method.

(2) Every 5 years, unless the Department establishes, in writing, a different period for the person or municipality that generated the waste.

(d) If hazardous waste generated by a person or municipality will be treated, stored or disposed of at a solid waste management facility which has applied to the Department for approval to treat, store or dispose of the waste, the person or municipality that generated the hazardous waste shall submit the source reduction strategy required by this section to the facility upon the request of the facility.

(e) This section does not apply to persons or municipalities that generate a total of less than 1,000 kilograms of hazardous waste in each month of the year.

(f) A person or municipality that generates hazardous waste may reference existing documents it has prepared to meet other waste minimization requirements to comply with this section, including those proposed to comply with 40 CFR 261.41(a)(5)—(7) (relating to biennial report).

[Next page is 263-1.]



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## CHAPTER 266b. UNIVERSAL WASTE MANAGEMENT


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| **A.** | **GENERAL** | **266b.1** |
| **B.** | **SMALL QUANTITY HANDLERS OF UNIVERSAL WASTE** | **266b.10** |
| **C.** | **LARGE QUANTITY HANDLERS OF UNIVERSAL WASTE** | **266b.30** |
| **D.** | **UNIVERSAL WASTE TRANSPORTERS** | **266b.50** |
| **E.** | **DESTINATION FACILITIES** | **266b.60** |


**Authority**

The provisions of this Chapter 266b issued under sections 105, 401—403 and 501 of the Solid Waste Management Act (35 P. S. §§ 6018.105, 6018.401—6018.403 and 6018.501); sections 105, 402 and 501 of The Clean Streams Law (35 P. S. §§ 691.105, 691.402 and 691.501); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

**Source**

The provisions of this Chapter 266b adopted April 30, 1999, effective May 1, 1999, 29 Pa.B. 2367, unless otherwise noted.

**Cross References**

This chapter cited in 25 Pa. Code § 252.3 (relating to scope); 25 Pa. Code § 260a.3 (relating to terminology and citations related to Federal regulations); 25 Pa. Code § 261a.8 (relating to requirements for universal waste); 25 Pa. Code § 264a.1 (relating to incorporation by reference, purpose, scope and reference); and 25 Pa. Code § 265a.1 (relating to incorporation by reference, purpose, scope and applicability).

## Subchapter A. GENERAL


Sec.
266b.1. Incorporation by reference and scope.
266b.2. Applicability—mercury-containing devices.
266b.3. Definitions.


### § 266b.1. Incorporation by reference and scope.

(a) Except as expressly provided in this chapter, 40 CFR Part 273 (relating to standards for universal waste management) is incorporated by reference.

(b) In addition to the requirements incorporated by reference in 40 CFR 273.1(a) (relating to scope), mercury-containing devices as defined in § 266b.3 (relating to definitions) are included as wastes subject to regulation under this chapter.

(c) In addition to the requirements incorporated by reference in 40 CFR 273.4 (relating to applicability—mercury thermostats), mercury-containing devices as defined in § 266b.3 are included as wastes subject to the standards specified for thermostats in this chapter.

(d) In addition to the requirements incorporated by reference in 40 CFR 273.6 (relating to definitions), mercury-containing devices as defined in § 266b.3 are included as wastes listed in the definition of ‘‘universal waste.’’

**Source**

The provisions of this § 266b.1 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6587. Immediately preceding text appears at serial page (255129).

**Cross References**

This section cited in 25 Pa. Code § 270a.1 (relating to incorporation by reference, scope and applicability).

## § 266b.2. Applicability—mercury-containing devices.

(a) In addition to the requirements incorporated by reference in 40 CFR Part 273 (relating to standards for universal waste management), this chapter applies to persons managing mercury-containing devices as defined in § 266b.3 (relating to definitions), except those listed in subsection (b).

(b) This section does not apply to persons managing the following mercury-containing devices:

(1) Mercury-containing devices that are not yet wastes under Chapter 261a (relating to identification and listing of hazardous waste). Subsections (c) and (d) describe when mercury-containing devices become wastes.

(2) Mercury-containing devices that are not hazardous waste. A mercury-containing device is a hazardous waste if it exhibits one or more of the characteristics identified in 40 CFR Part 261, Subpart C (relating to characteristics of hazardous waste).

(c) A used mercury-containing device becomes a waste on the date it is discarded or sent for reclamation.

(d) An unused mercury-containing device becomes a waste on the date the handler discards it.

**Source**

The provisions of this § 266b.2 adopted December 22, 2000, effective December 23, 2000, 30 Pa.B. 6587.

**Cross References**

This section cited in 25 Pa. Code § 268a.1 (relating to incorporation by reference, purpose, scope and applicability).

## § 266b.3. Definitions.

In addition to the definitions incorporated by reference in 40 CFR 273.6 (relating to definitions), the following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

*Mercury-containing device*—A product or component of a product (excluding batteries) which contains elemental mercury that is necessary for operation of the device.



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**Source**

The provisions of this § 266b.3 adopted December 22, 2000, effective December 23, 2000, 30 Pa.B. 6587.

**Cross References**

This section cited in 25 Pa. Code § 261a.8 (relating to requirements for universal waste); 25 Pa. Code § 266b.1 (relating to incorporation by reference and scope); and 25 Pa. Code § 266b.2 (relating to applicability—mercury-containing devices).

## Subchapter B. SMALL QUANTITY HANDLERS OF UNIVERSAL WASTE

Sec.
266b.10. Applicability.
266b.11. Waste management for universal waste mercury-containing devices.
266b.12. Labeling/marking.

### § 266b.10. Applicability.

In addition to the requirements incorporated by reference, a small quantity handler of universal waste complying with this subchapter is deemed to have a permit for the storage of universal wastes.

### § 266b.11. Waste management for universal waste mercury-containing devices.

In addition to the requirements incorporated by reference in 40 CFR 273.13 (relating to waste management), the following apply:

(1) A small quantity handler of universal waste shall contain any universal waste mercury-containing device that shows evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions in a container. The container shall be closed, structurally sound, compatible with the contents of the mercury-containing device and lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing devices if the handler:

(i) Removes the ampules in a manner designed to prevent breakage of the ampules.

(ii) Removes ampules only over or in a containment device (for example, a tray or pan sufficient to collect and contain mercury released from an ampule in case of breakage).

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer mercury resulting from spills or leaks from broken

ampules, from the containment device to a container that meets the requirements of 40 CFR 262.34 (relating to accumulation time).

(iv) Immediately transfers mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of 40 CFR 262.34.

(v) Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable occupational safety and health administration exposure levels for mercury found in 29 CFR Part 1910, Subpart Z (relating to toxic and hazardous substances).

(vi) Ensures that employes removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers.

(vii) Stores removed ampules in closed, nonleaking containers that are in good condition.

(viii) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling and transportation.

(3) A small quantity handler of universal waste who removes mercury-containing ampules from mercury-containing devices shall determine whether the following exhibit a characteristic of hazardous waste identified in 40 CFR Part 261, Subpart C (relating to characteristics of hazardous waste):

(i) Mercury or clean-up residues resulting from spills or leaks.

(ii) Other solid waste generated as a result of the removal of mercury-containing ampules (for example, remaining mercury device units).

(4) If the mercury, residue or other solid waste exhibits a characteristic of hazardous waste, it shall be managed in compliance with applicable requirements of Chapters 261a—265a. The handler is considered the generator of the mercury, residues or other waste and is subject to Chapter 262a (relating to standards applicable to generators of hazardous waste).

(5) If the mercury, residue or other solid waste is not hazardous, the handler shall manage the waste in compliance with the applicable municipal or residual waste regulations found in Articles VIII and IX (relating to municipal waste management; and residual waste management).

**Source**

The provisions of this § 266b.11 adopted December 22, 2000, effective December 23, 2000, 30 Pa.B. 6587.

## § 266b.12. Labeling/marking.

In addition to the requirements incorporated by reference in 40 CFR 273.14 (relating to labeling/marking), a small quantity handler of universal waste shall label each mercury-containing device, or a container in which the device is con-



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tained, with one of the following phrases: ''universal waste mercury-containing device(s),'' or ''waste mercury-containing device(s)'' or ''used mercury-containing device(s).''

**Source**

The provisions of this § 266b.12 adopted December 22, 2000, effective December 23, 2000, 30 Pa.B. 6587.

## Subchapter C. LARGE QUANTITY HANDLERS OF UNIVERSAL WASTE

Sec.
266b.30. Applicability.
266b.31. Waste management for universal waste mercury-containing devices.
266b.32. Labeling/marking.

### § 266b.30. Applicability.

(a) In addition to the requirements incorporated by reference, a large quantity handler of universal waste complying with this subchapter is deemed to have a permit for the storage of universal wastes.

(b) The substitution of terms in § 260a.3(a)(3) (relating to terminology and citations related to Federal regulations) does not apply to 40 CFR 273.32(a)(3) and 273.40(b) and (c) (relating to notification; and exports).

### § 266b.31. Waste management for universal waste mercury-containing devices.

In addition to the requirements incorporated by reference at 40 CFR 273.33 (relating to waste management), the following apply:

(1) A large quantity handler of universal waste shall contain any universal waste mercury-containing device that shows evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions in a container. The container shall be closed, structurally sound, compatible with the contents of the mercury-containing device and lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A large quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing devices if the handler:

(i) Removes the ampules in a manner designed to prevent breakage of the ampules.

(ii) Removes ampules only over or in a containment device (for example, a tray or pan sufficient to collect and contain mercury released from an ampule in case of breakage).

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer mercury resulting from spills or leaks from broken ampules, from the containment device to a container that meets the requirements of 40 CFR 262.34 (relating to accumulation time).

(iv) Immediately transfers mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of 40 CFR 262.34.

(v) Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable occupational safety and health administration exposure levels for mercury found in 29 CFR Part 1910, Subpart Z (relating to toxic and hazardous substances).

(vi) Ensures that employes removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers.

(vii) Stores removed ampules in closed, nonleaking containers that are in good condition.

(viii) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling and transportation.

(3) A large quantity handler of universal waste who removes mercury-containing ampules from mercury-containing devices shall determine whether the following exhibit a characteristic of hazardous waste identified in 40 CFR Part 261, Subpart C (relating to characteristics of hazardous waste):

(i) Mercury or clean-up residues resulting from spills or leaks.

(ii) Other solid waste generated as a result of the removal of mercury-containing ampules (for example, remaining mercury device units).

(4) If the mercury, residue or other solid waste, exhibits a characteristic of hazardous waste, it shall be managed in compliance with applicable requirements of Chapters 261a—265a and Chapter 266a, Subchapters C and F—H. The handler is considered the generator of the mercury, residue or other waste and is subject to Chapter 262a (relating to standards applicable to generators of hazardous waste).

(5) If the mercury, residues or other solid waste is not hazardous, the handler shall manage the waste in compliance with the applicable municipal or residual waste regulations found in Articles VIII and IX (relating to municipal waste management; and residual waste management).

**Source**

The provisions of this § 266b.31 adopted December 22, 2000, effective December 23, 2000, 30 Pa.B. 6587.

## § 266b.32. Labeling/marking.

In addition to the requirements incorporated by reference in 40 CFR 273.34 (relating to labeling/marking), a large quantity handler of universal waste shall



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label each mercury-containing device, or a container in which the device is contained, with one of the following phrases: ''universal waste mercury-containing device(s),'' or ''waste mercury-containing device(s)'' or ''used mercury-containing device(s).''

**Source**

The provisions of this § 266b.32 adopted December 22, 2000, effective December 23, 2000, 30 Pa.B. 6587.

## Subchapter D. UNIVERSAL WASTE TRANSPORTERS

Sec.
266b.50. Applicability.

### § 266b.50. Applicability.

(a) In addition to the requirements incorporated by reference, a universal waste transporter complying with this subchapter is deemed to have a license for the transportation of universal wastes.

(b) The substitution of terms in § 260a.3(a)(3) (relating to terminology and citations related to Federal regulations) does not apply to 40 CFR 273.56 (relating to exports).

**Cross References**

This section cited in 25 Pa. Code § 263a.13 (relating to licensing); and 25 Pa. Code § 265a.11 (relating to identification number and transporter license).

## Subchapter E. DESTINATION FACILITIES

Sec.
266b.60. Applicability.

### § 266b.60. Applicability.

Relative to the requirements incorporated by reference, 40 CFR 273.60(b) (relating to applicability) is not incorporated by reference.

[Next page is 267-1.]



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## CHAPTER 298. MANAGEMENT OF WASTE OIL


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**Authority**

The provisions of this Chapter 298 issued under section 105(a) of the Solid Waste Management Act (35 P. S. § 6018.105(a)); sections 5(b) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b) and 691.402); section 302 of the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. § 4000.302); section 480(e) of the Pennsylvania Used Oil Recycling Act (58 P. S. § 480(e)); and sections 1905-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 510-5, 510-17 and 510-20), unless otherwise noted.

**Source**

The provisions of this Chapter 298 adopted June 1, 2001, effective June 2, 2001, 31 Pa.B. 2873, unless otherwise noted.

**Cross References**

This chapter cited in 25 Pa. Code § 252.3 (relating to scope); 25 Pa. Code § 260a.3 (relating to terminology and citations related to Federal regulations); 25 Pa. Code § 261a.2 (relating to definition of ''solid waste''); 25 Pa. Code § 261a.5 (relating to special requirements for hazardous waste generated by conditionally exempt small quantity generators); 25 Pa. Code § 261a.6 (relating to requirements for recyclable materials); and 25 Pa. Code § 266a.100 (relating to applicability).

### Subchapter A. GENERAL


Sec.
298.1. Definitions.
298.2. Scope.


### § 298.1. Definitions.

Terms defined in §§ 260a.1 and 260a.10 (relating to incorporation by reference, purpose, scope and applicability; and definitions) that are not defined in § 287.1 (relating to definitions) have the same meanings when used in this chapter. The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

*Aboveground storage tank*—A tank used to store or process waste oil that is not an underground storage tank.

*Container*—A portable device in which a material is stored, transported, treated, disposed of or otherwise handled.

*Household "do-it-yourselfer" waste oil*—Oil that is derived from households, such as waste oil generated by individuals who generate waste oil through the maintenance of their personal vehicles.

*Household "do-it-yourselfer" waste oil generator*—An individual who generates household "do-it-yourselfer" waste oil.

*Petroleum refining facility*—An establishment primarily engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils and lubricants, through fractionation, straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking or other processes—for example, facilities classified as SIC 2911.

*Rerefining distillation bottoms*—The heavy fraction produced by vacuum distillation of filtered and dehydrated waste oil. The composition of still bottoms varies with column operation and feedstock.

*Tank*—A stationary device, designed to contain an accumulation of waste oil which is constructed primarily of nonearthen or nonwooden materials—for example, concrete, steel, plastic—which provides structural support.

*Underground storage tank*—An underground storage tank as defined in § 245.1 (relating to definitions).

*Waste oil aggregation point*—A site or facility that accepts, aggregates or stores waste oil collected only from other waste oil generation sites owned or operated by the owner or operator of the aggregation point, from which waste oil is transported to the aggregation point in shipments of no more than 55 gallons. Waste oil aggregation points may also accept waste oil from household do-it-yourselfers.

*Waste oil burner*—A facility where waste oil not meeting the specification requirements in § 298.11 (relating to waste oil specifications) is burned for energy recovery in devices identified in § 298.61(a) (relating to restrictions on burning).

*Waste oil collection center*—A site or facility that is registered, licensed, permitted and accepts, aggregates and stores waste oil collected from waste oil generators regulated under Subchapter C (relating to waste oil generators) who bring waste oil to the collection center in shipments of no more than 55 gallons under § 298.24 (relating to offsite shipments). Waste oil collection centers may also accept waste oil from household do-it-yourselfers.

*Waste oil fuel marketer*—A person who conducts one of the following activities:

(i) Directs a shipment of off-specification waste oil from the person's facility to a waste oil burner.

(ii) First claims that waste oil that is to be burned for energy recovery meets the waste oil fuel specifications in § 298.11.



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*Waste oil generator*—A person, by site, whose act or process produces waste oil or whose act first causes waste oil to become subject to this chapter.

*Waste oil processing*—Chemical or physical operations designed to produce from waste oil, or to make waste oil more amenable for production of, fuel oils, lubricants or other waste oil-derived products. Waste oil processing includes: blending waste oil with virgin petroleum products, blending waste oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and rerefining.

*Waste oil processor/rerefiner*—A facility that processes waste oil.

*Waste oil transfer facility*—A transportation related facility including loading docks, parking areas, storage areas and other areas where shipments of waste oil are received or held, or both, during the normal course of transportation.

*Waste oil transporter*—A person who transports waste oil and a person who collects waste oil from more than one generator and transports the collected oil. Transportation may include consolidation or aggregation of loads of waste oil on the vehicle or in transportation containers. Transporters may conduct incidental waste oil separation that occurs in the normal course of waste oil transportation—for example, settling and water separation.

## § 298.2. Scope.

(a) This chapter specifies general procedures and rules for persons or municipalities who generate, manage or handle waste oil that is being recycled.

(b) Waste oil that is being recycled shall be managed in accordance with this chapter.

### Subchapter B. APPLICABILITY

Sec.
298.10. Applicability.
298.11. Waste oil specifications.
298.12. Prohibitions.

## § 298.10. Applicability.

(a) *Waste oil*. It is presumed that waste oil is to be recycled unless a waste oil handler disposes of waste oil, or sends waste oil for disposal. Except as provided in § 298.11 (relating to waste oil specifications), this chapter applies to waste oil and to materials identified in this section as being subject to regulation as waste oil whether or not the waste oil or material exhibits any characteristics of hazardous waste identified in 40 CFR Part 261, Subpart C (relating to characteristics of hazardous waste), incorporated by reference in § 261a.1 (relating to incorporation by reference, purpose and scope).

(b) *Mixtures of waste oil and hazardous waste*.

(1) *Listed hazardous waste*.

(i) *Mixtures of waste oil*. Mixtures of waste oil and hazardous waste that are listed in 40 CFR Part 261, Subpart D (relating to lists of hazardous waste), incorporated by reference in § 261a.1, are subject to regulation as hazardous waste under Chapters 260a—266a and Chapter 270a rather than as waste oil under this chapter.

(ii) *Rebuttable presumption for waste oil*. Waste oil containing more than 1,000 parts per million total halogens is presumed to be a hazardous waste. A person may rebut this presumption by demonstrating that the waste oil does not contain hazardous waste. For example, a person may use an analytical method from the current edition of SW-846 to show that the waste oil does not contain significant concentrations of halogenated hazardous constituents identified in 40 CFR Part 261, Appendix VIII (relating to hazardous constituents), incorporated by reference in § 261a.1. EPA publication SW-846, current edition, is available from the Government Printing Office, Superintendent of Documents, Post Office Box 371954, Pittsburgh, Pennsylvania 15250-7954, (202) 512-1800 (Document number 955-001-00000-1). Another way of rebutting this presumption is to demonstrate that the halogenated constituents are from wastes generated by households and, therefore, under 40 CFR 261.4(b)(1) (relating to exclusions), incorporated by reference in § 261a.1, are excluded from regulation as hazardous waste.

(A) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 298.24(c) (relating to offsite shipments), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if the oils/fluids are recycled in another manner or disposed.

(B) The rebuttable presumption does not apply to waste oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption applies to waste oils contaminated with CFCs that have been mixed with waste oil from sources other than refrigeration units.

(2) *Characteristic hazardous waste*. A mixture of waste oil and hazardous waste that solely exhibits one or more of the hazardous waste characteristics identified in 40 CFR Part 261, Subpart C (relating to characteristics of hazardous waste), incorporated by reference in § 261a.1, and mixtures of waste oil and hazardous waste that is listed in 40 CFR Part 261, Subpart D (relating to lists of hazardous waste), incorporated by reference in § 261a.1, solely because it exhibits one or more of the characteristics of hazardous waste identified in 40 CFR Part 261, Subpart C (relating to characteristics of hazardous waste), incorporated by reference in § 261a.1, are subject to:



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(i) Regulation as hazardous waste under Chapters 260a—270a, rather than as waste oil under this chapter, except as provided in subparagraphs (ii) and (iii).

(ii) Regulation as waste oil under this chapter if the mixture is of waste oil and a waste which is hazardous waste, mixed in accordance with § 270a.60(b)(2) (relating to permit-by-rule) or in accordance with a permitted hazardous waste treatment facility, and if the waste is hazardous solely because it exhibits the toxicity characteristic for benzene, arsenic, cadmium, chromium or lead or ignitability, provided that the resultant mixture does not exhibit any characteristic of hazardous waste identified under 40 CFR Part 261, Subpart C (relating to characteristics of hazardous waste) except as specified in subparagraph (iii).

(iii) Regulation as waste oil under this chapter if the mixture is of waste oil and a waste which is hazardous solely because it exhibits the characteristic of ignitability—for example, ignitable-only mineral spirits—if the resultant mixture does not exhibit the characteristic of ignitability under 40 CFR 261.21 (relating to characteristic of ignitability), incorporated by reference at § 261a.1. The hazardous waste, as well as the mixing of waste oil with a waste that is hazardous solely because it exhibits the characteristic of ignitability, shall be managed in accordance with this chapter.

(c) *Materials containing or otherwise contaminated with waste oil*.

(1) Except as provided in paragraph (2), materials containing or otherwise contaminated with waste oil from which the waste oil has been properly drained or removed to the extent possible so that no visible signs of free- flowing oil remain in or on the material:

(i) Are not waste oil and thus not subject to this chapter.

(ii) Are subject to regulation under Articles VII and VIII (relating to hazardous waste management; and municipal waste management) or this article.

(2) Materials containing or otherwise contaminated with waste oil that are burned for energy recovery are subject to regulation as waste oil under this chapter when burned at an industrial furnace or boiler.

(3) Waste oil drained or removed from materials containing or otherwise contaminated with waste oil is subject to regulation as waste oil under this chapter.

(4) Except as provided in paragraph (2) and subsection (f), wastewater contaminated with waste oil is managed under this chapter if it is demonstrated that one of the following applies:

(i) At least 1% of the wastewater is waste oil.

(ii) The wastewater contains marketable quantities of waste oil.

(d) *Mixtures of waste oil with products*.

(1) Except as provided in paragraph (2), mixtures of waste oil and fuels or other fuel products are subject to regulation as waste oil under this chapter.

(2) A mixture of waste oil and diesel fuel mixed onsite by the generator of the waste oil for use in the generator's own vehicles is not subject to this chapter once the waste oil and diesel fuel have been mixed. Prior to mixing, the waste oil is subject to Subchapter C (relating to waste generators).

(e) *Materials derived from waste oil*.

(1) A material reclaimed from waste oil that is used beneficially and is not burned for energy recovery or used in a manner constituting disposal—for example, rerefined lubricants—may not be subject to this title if the Department determines that the material is no longer a waste in accordance with § 287.7 (relating to determination that a material is no longer a waste).

(2) A material produced from waste oil that is burned for energy recovery—for example, waste oil fuels—is subject to regulation as waste oil under this chapter.

(3) Except as provided in paragraph (4), a material derived from waste oil that is disposed or used in a manner constituting disposal is:

(i) Not waste oil and thus is not subject to this chapter.

(ii) A waste subject to regulation under Article VII or this article.

(4) Waste oil rerefining distillation bottoms that are used by the rerefiner as feedstock to manufacture asphalt products are not subject to this chapter.

(f) *Waste oil introduced into crude oil pipelines or a petroleum refining facility*.

(1) Waste oil mixed with crude oil or natural gas liquids—for example, in a production separator or crude oil stock tank—for insertion into a crude oil pipeline is exempt from this chapter. Waste oil is subject to this chapter prior to the mixing of waste oil with crude oil or natural gas liquids.

(2) A mixture of waste oil and crude oil or natural gas liquids containing less than 1% waste oil that is being stored or transported to a crude oil pipeline or petroleum refining facility for insertion into the refining process at a point prior to crude distillation or catalytic cracking is exempt under this chapter.

(3) Waste oil that is inserted into the petroleum refining facility process before crude distillation or catalytic cracking without prior mixing with crude oil is exempt from this chapter if the waste oil constitutes less than 1% of the crude oil feed to a petroleum refining facility process unit at any given time. Prior to insertion into the petroleum refining facility process, the waste oil is subject to this chapter.

(4) Except as provided in paragraph (5), waste oil that is introduced into a petroleum refining facility process after crude distillation or catalytic cracking is exempt from this chapter only if the waste oil meets the specification of § 298.11 (relating to waste oil specifications). Prior to insertion into the petroleum refining facility process, the waste oil is subject to this chapter.

(5) Waste oil that is incidentally captured by a hydrocarbon recovery system or wastewater treatment system as part of routine process operations at a petroleum refining facility and inserted into the petroleum refining facility pro-



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cess is exempt from this chapter. This exemption does not extend to waste oil which is intentionally introduced into a hydrocarbon recovery system—for example, by pouring collected waste oil into the waste water treatment system.

(6) Tank bottoms from stock tanks containing exempt mixtures of waste oil and crude oil or natural gas liquids are exempt from this chapter.

(g) *Waste oil on vessels*. Waste oil produced on vessels from normal shipboard operations is not subject to this chapter until it is transported ashore.

(h) *Waste oil containing PCBs*. In addition to the requirements of this chapter, a marketer and burner of waste oil who markets waste oil containing a quantifiable level of PCBs is subject to 40 CFR 761.20(e) (relating to prohibitions and exceptions).

**Cross References**

This section cited in 25 Pa. Code § 298.20 (relating to applicability); 25 Pa. Code § 298.21 (relating to applicability); 25 Pa. Code § 298.24 (relating to offsite shipments); 25 Pa. Code § 298.40 (relating to applicability); 25 Pa. Code § 298.44 (relating to rebuttable presumption for waste oil and flash point screening); 25 Pa. Code § 298.46 (relating to tracking); 25 Pa. Code § 298.53 (relating to rebuttable presumption for waste oil and flash point screening); 25 Pa. Code § 298.59 (relating to management of waste); 25 Pa. Code § 298.63 (relating to rebuttable presumption for waste oil); and 25 Pa. Code § 298.67 (relating to management of waste).

## § 298.11. Waste oil specifications.

(a) Waste oil, and any fuel produced from waste oil by waste oil processing, blending or other treatment, to be burned for energy recovery either under this chapter or as specification fuel oil shall have at least 8,000 Btus per pound.

(b) Waste oil burned for energy recovery and fuel produced from waste oil by waste oil processing, blending or other treatment is subject to this chapter unless it is shown not to exceed any of the allowable levels of the constituents and properties in the specification shown in Table 1. Once waste oil that is to be burned for energy recovery has been shown not to exceed any specification and the person making that showing complies with §§ 298.72—298.74 (relating to on-specification waste oil fuel; notification; and tracking), the waste oil is no longer subject to this chapter. This waste oil is also known as on-specification fuel oil.

**Table 1—Waste Oil Not Exceeding Any Specification Level Is Not Subject To This Chapter When Burned For Energy Recovery.[1]**

| *Constituent/Property* | *Allowable Levels* |
|---|---|
| Arsenic | 5 ppm maximum |
| Cadmium | 2 ppm maximum |
| Chromium | 10 ppm maximum |
| Lead | 100 ppm maximum |
| Flash point | 100°F minimum |

| *Constituent/Property* | *Allowable Levels* |
|---|---|
| Total halogens | 1,000 ppm maximum for residential and commercial uses and 4,000 maximum for industrial uses. |

[1] The specifications do not apply to mixtures of waste oil and hazardous waste that continue to be regulated as hazardous waste (see § 298.10(b) (relating to applicability).

**Cross References**

This section cited in 25 Pa. Code § 261a.6 (relating to requirements for recyclable materials); 25 Pa. Code § 298.1 (relating to definitions); 25 Pa. Code § 298.10 (relating to applicability); 25 Pa. Code § 298.20 (relating to applicability); 25 Pa. Code § 298.40 (relating to applicability); 25 Pa. Code § 298.50 (relating to applicability); 25 Pa. Code § 298.60 (relating to applicability); 25 Pa. Code § 298.70 (relating to applicability); 25 Pa. Code § 298.72 (relating to on-specification waste oil fuel); and 25 Pa. Code § 298.74 (relating to tracking).

## § 298.12. Prohibitions.

(a) *Surface impoundment prohibition*. Waste oil may not be managed in surface impoundments or waste piles unless the units are subject to Chapter 264a or 265a (relating to owners and operators of hazardous waste treatment, storage and disposal facilities; and interim status standards for owners and operators of hazardous waste treatment, storage and disposal facilities).

(b) *Use as a dust suppressant*. The use of waste oil as a dust suppressant is prohibited.

(c) *Burning in particular units*. Off-specification waste oil fuel may be burned for energy recovery in only the following devices:

(1) An industrial furnace identified in 40 CFR 260.10 (relating to definitions), incorporated by reference in § 260a.1 (relating to incorporation by reference, purpose, scope and applicability).

(2) A boiler, as defined in 40 CFR 260.10, incorporated by reference in § 260a.1, that is identified as one of the following:

(i) An industrial boiler located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes.

(ii) A utility boiler used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale.

(iii) A waste oil-fired space heater if the burner meets the provisions of § 298.23 (relating to onsite burning in space heaters).

(3) A hazardous waste incinerator subject to 40 CFR Part 264, Subpart O (relating to incinerators), incorporated by reference in § 264a.1 (relating to incorporation by reference, purpose, scope and reference), or Chapter 265a.

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## Subchapter C. WASTE OIL GENERATORS

Sec.
298.20. Applicability.
298.21. Hazardous waste mixing.
298.22. Waste oil storage.
298.23. Onsite burning in space heaters.
298.24. Offsite shipments.
298.25. Source reduction strategy.
298.26. Biennial report.

**Cross References**

This subchapter cited in 25 Pa. Code § 270a.60 (relating to permits-by-rule); 25 Pa. Code § 298.1 (relating to definitions); 25 Pa. Code § 298.30 (relating to waste oil collection centers); 25 Pa. Code § 298.40 (relating to applicability); 25 Pa. Code § 298.50 (relating to applicability); 25 Pa. Code § 298.60 (relating to applicability); and 25 Pa. Code § 298.70 (relating to applicability).

### § 298.20. Applicability.

(a) *General*. Except as provided in paragraphs (1)—(4), this subchapter applies to a waste oil generator. A waste oil generator is a person, by site, whose act or process produces waste oil or whose act first causes waste oil to become subject to regulation.

(1) *Household "do-it-yourselfer" waste oil generators*. A household "do-it yourselfer" waste oil generator is not subject to this chapter.

(2) *Vessels*. A vessel at sea or at port is not subject to this subchapter. For purposes of this subchapter, waste oil produced on vessels from normal shipboard operations is considered to be generated at the time it is transported ashore. The owner or operator of the vessel and the person removing or accepting waste oil from the vessel are cogenerators of the waste oil and are both responsible for managing the waste in compliance with this subchapter once the waste oil is transported ashore. The cogenerators may decide among them which party will fulfill the requirements of this subchapter.

(3) *Diesel fuel*. A mixture of waste oil and diesel fuel mixed by the generator of the waste oil for use in the generator's own vehicles is not subject to this chapter once the waste oil and diesel fuel have been mixed. Prior to mixing, the waste oil fuel is subject to this subchapter.

(4) *Farmers*. A farmer who generates an average of 25 gallons per month or less of waste oil from vehicles or machinery used on the farm in a calendar year is not subject to this chapter.

(b) *Other applicable provisions*. A waste oil generator who conducts the following activities is subject to the requirements of other applicable provisions of this chapter and other chapters as indicated in paragraphs (1)—(8):

(1) A waste oil generator who transports waste oil, except under the self-transport provisions of § 298.24(1) and (2) (relating to offsite shipments), shall also comply with Subchapter E (relating to waste oil transporter and transfer facilities).

(2) Except as provided in paragraphs (3) and (4), a waste oil generator who processes or rerefines waste oil shall also comply with Subchapter F (relating to waste oil processing/refining facilities).

(3) A waste oil generator who performs the following activities is deemed to have a solid waste management permit-by-rule for the captive processing of waste oil provided that the waste oil is not being sent offsite to a burner of on-specification or off-specification waste oil fuel and provided that the generator submits a written notice to the Department that includes the name, address and telephone number of the facility, the individual responsible for operating the facility and a brief description of the facility. The Department may require a generator, who is conducting one of the activities in subparagraphs (i)—(iv) under a permit-by-rule, to apply for, and obtain, a permit in accordance with Chapters 287 and 297 (relating to residual waste management—general provisions; incinerators and other processing facilities), or take other appropriate action, when the generator is not in compliance with the requirements for the permit-by-rule or is conducting an activity that harms or presents a threat of harm to the health, safety or welfare of the people or the environment of this Commonwealth.

(i) Filtering, cleaning or otherwise reconditioning waste oil before it is reused by the generator. The generator shall also meet the following requirements:

(A) Remaining waste is managed under the act.

(B) Processing does not have an adverse effect on public health, safety, welfare or the environment.

(C) Processing occurs at the same manufacturing or production facility where some or all of the waste oil is generated.

(ii) Separating waste oil from wastewater generated onsite to make the wastewater acceptable for discharge or shipment offsite. For this activity to be authorized by a permit-by-rule, the generator shall also meet the following requirements:

(A) Processing occurs at the same manufacturing or production facility where some or all of the waste oil is generated.

(B) The facility has an NPDES permit, if required, and complies with the conditions of that permit.

(C) The facility meets the requirements of 40 CFR 264.11, 264.14, 264.15, 264.73, 264.75 and 264.77 all of which are incorporated by reference in § 264a.1 (relating to incorporation by reference, purpose, scope and reference).

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(D) The generator shall maintain, in a readily accessible place at the facility, a copy of a preparedness prevention and contingency (PPC) plan that is consistent with the Department's most recent guidelines for development and implementation of PPC plans.

(iii) Draining or otherwise removing waste oil from materials containing or otherwise contaminated with waste oil to remove excessive oil to the extent possible under § 298.10(c) (relating to applicability). For this activity to be authorized by a permit-by-rule, the generator shall also meet the following requirements:

(A) Waste remaining from the filter process is managed under the act.

(B) Processing does not have an adverse effect on public health, safety, welfare or the environment.

(C) Processing occurs at the same manufacturing or production facility where some or all of the waste oil is generated.

(iv) Filtering, separating or otherwise reconditioning waste oil before burning it in a space heater under § 298.23 (relating to onsite burning in space heaters). For this activity to be authorized by a permit-by-rule, the generator shall also meet the following requirements:

(A) Waste remaining from the filter process is managed under the act.

(B) Processing does not have an adverse effect on public health, safety, welfare or the environment.

(C) Processing occurs at the same manufacturing or production facility where some or all of the waste oil is generated.

(4) A waste oil generator is not a processor when it is using oil mist collectors to remove small droplets of waste oil from in-plant air to make plant air suitable for continued recirculation. For this exemption to be applicable, the waste oil so generated is not being sent offsite to a burner of on- or off-specification waste oil fuel.

(5) A waste oil generator who burns off-specification waste oil for energy recovery, except under the onsite space heater provisions of § 298.23, shall also comply with Subchapter G (relating to waste oil burners who burn off-specification waste oil for energy recovery).

(6) A waste oil generator who directs shipments of off-specification waste oil from its facility to a waste oil burner, or first claims that waste oil that is to be burned for energy recovery meets the waste oil fuel specifications in § 298.11 (relating to waste oil specifications) shall also comply with Subchapter H (relating to waste oil fuel marketers).

(7) A waste oil generator shall dispose of waste oil in accordance with Article VII or IX (relating to hazardous waste management; and residual waste management).

(8) A material managed in accordance with this section and that is not burned for energy recovery or used in a manner constituting disposal may not be subject to regulation under this title if the Department determines that the

material is no longer a waste in accordance with § 287.7 (relating to determination that a material is no longer a waste).

(c) *Recordkeeping*. The generator is required to maintain, for 3 years, the following records:

(1) The type of oil used.

(2) A description of the process that generates the waste oil.

(3) A record of the tests used to determine if the waste oil contains more than 1,000 parts per million total halogens.

(4) A record of the information used to rebut the presumption in § 298.10(b)(1)(ii) if the waste oil contains more than 1,000 parts per million total halogens.

(5) The type and quantity of any hazardous waste generated and the analyses of hazardous waste characteristics for any mixtures of hazardous waste with waste oil.

## § 298.21. Hazardous waste mixing.

(a) A mixture of waste oil and hazardous waste shall be managed in accordance with § 298.10(b) (relating to applicability).

(b) The rebuttable presumption for waste oil of § 298.10(b)(1)(ii) applies to waste oil managed by generators. Under the rebuttable presumption for waste oil of § 298.10(b)(1)(ii), waste oil containing greater than 1,000 parts per million total halogens is presumed to be a hazardous waste and shall be managed as hazardous waste and not as waste oil unless the presumption is rebutted. However, the rebuttable presumption does not apply to certain metalworking oils/fluids and certain waste oils removed from refrigeration units, as provided for in § 298.10(b)(1)(ii)(A) and (B).

(c) A generator shall perform a hazardous waste determination on any hazardous waste generated prior to mixing with waste oil and on the resultant mixture.

(d) If a generator rebuts the presumption in accordance with § 298.10(b)(1)(ii), the generator shall provide all information used to rebut the presumption to the transporter.

## § 298.22. Waste oil storage.

(a) *Storage units*. A waste oil generator may not store waste oil in units other than tanks, containers or units subject to regulation under Chapter 264a or 265a (relating to owners and operators of hazardous waste treatment, storage and disposal facilities; and interim status standards for owners and operators of hazardous waste treatment, storage and disposal facilities).

(b) *Condition of units*. A container or aboveground storage tank used to store waste oil at generator facilities shall meet the following requirements:



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(1) *Be in good condition*. For example, containers and aboveground storage tanks may not exhibit severe rusting, apparent structural defects or deterioration.

(2) *Not leaking (no visible leaks)*.

(c) *Labels*.

(1) Except as provided in paragraphs (2) and (3), a container or aboveground storage tank used to store waste oil at generator facilities shall be labeled or marked clearly with the words "waste oil" by no later than December 2, 2001.

(2) Containers or aboveground storage tanks which are labeled or marked with the words "used oil" on June 2, 2001, shall be labeled or marked with the words "waste oil" by no later than June 2, 2003.

(3) Containers used in transportation may be labeled or marked with the words "used oil," instead of "waste oil," or the words required by a receiving state if the containers and vehicles are destined for recycling or disposal outside of this Commonwealth. If a person accepts waste oil from or delivers waste oil to a generator, transfer facility, or processor/rerefiner in this Commonwealth in a container used in transportation, paragraph (1) or (2) shall be met.

(4) Fill pipes used to transfer waste oil into underground storage tanks at generator facilities shall be labeled or marked clearly with the words "waste oil" by no later than December 2, 2001. Fill pipes which are labeled or marked with the words "used oil" on June 2, 2001, shall be labeled or marked with the words "waste oil" by no later than June 2, 2003.

(d) *Additional requirements for storage tanks*. Storage tanks used to store waste oil shall be designed and operated in accordance with § 299.122(b) and (c) (relating to storage tanks). For existing aboveground storage tanks, an alternative design to secondary containment may be demonstrated where the tank meets the ground.

(e) *Additional requirements for containers*. The total container height of a group of containers may not exceed 9 feet. The maximum width and depth of a group of containers shall provide a configuration and aisle space which ensures access for purposes of inspection, containment and remedial action with emergency vehicles and equipment.

(f) *Response to releases*. Upon detection of a release of waste oil to the environment not subject to Chapter 245, Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties) which has occurred after June 2, 2001, a generator shall perform the following cleanup steps:

(1) Stop the release.

(2) Contain the released waste oil.

(3) Clean up and manage properly the released waste oil and other materials.

(4) Repair or replace any leaking waste oil storage containers or tanks prior to returning them to service, if necessary.

(g) *Additional requirements*. In addition to the requirements of this subchapter, a waste oil generator shall maintain, in a readily accessible place at the facility, a copy of a preparedness, prevention and contingency (PPC) plan that is consistent with the Department's most recent guidelines for development and implementation of PPC plans. Waste oil generators are subject to the applicable spill prevention, control and countermeasures (40 CFR Part 112 (relating to oil pollution prevention)) in addition to the requirements of this subchapter. Waste oil generators are also subject to the underground storage tank standards in Chapter 245 (relating to administration of the storage tank and spill prevention program) for waste oil stored in underground storage tanks whether or not the waste oil exhibits any characteristics of hazardous waste.

## § 298.23. Onsite burning in space heaters.

A generator is deemed to have a solid waste management permit-by-rule to burn waste oil in waste oil-fired space heaters if the following apply:

(1) The heater burns only waste oil that the owner or operator generates or waste oil received from household do-it-yourselfer waste oil generators.

(2) The heater is designed to have a maximum capacity of not more than 0.5 million Btu per hour.

(3) The combustion gases from the heater are vented to the ambient air.

**Cross References**

This section cited in 25 Pa. Code § 298.12 (relating to prohibitions); 25 Pa. Code § 298.20 (relating to applicability); 25 Pa. Code § 298.50 (relating to applicability); 25 Pa. Code § 298.60 (relating to applicability); and 25 Pa. Code § 298.61 (relating to restrictions on burning).

## § 298.24. Offsite shipments.

Except as provided in paragraphs (1)—(3), a generator shall ensure that waste oil is transported only by transporters who have obtained identification numbers. The generator shall provide the transporter with a certification that, except as provided for in § 298.10(b)(2)(ii) (relating to applicability), its waste oil has not been mixed with a hazardous waste.

(1) *Self-transportation of small amounts to approved collection centers*. Generators may transport, without an identification number, waste oil that is generated at the generator's site and waste oil collected from household do-it-yourselfers to a waste oil collection center if the following apply:

(i) The generator transports the waste oil in a vehicle owned by the generator or owned by an employe of the generator.

(ii) The generator transports no more than 55 gallons of waste oil at any time.



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(iii) The generator transports the waste oil to a waste oil collection center that is one of the following:

(A) Operated in accordance with the requirements of Subchapter D (relating to waste oil collection centers and aggregation points) if the facility is located within this Commonwealth.

(B) Registered, licensed, permitted or recognized by a state/county/municipal government to manage waste oil if the facility is located outside this Commonwealth.

(iv) The generator shall provide the waste oil collection center with a certification that except as provided for in § 298.10(b)(2)(ii), the generator has not mixed its waste oil with hazardous waste.

(2) *Self-transportation of small amounts to aggregation points owned by the generator*. A generator may transport, without an identification number, waste oil that is generated at the generator's site to an aggregation point if the following apply:

(i) The generator transports the waste oil in a vehicle owned by the generator or owned by an employee of the generator.

(ii) The generator transports no more than 55 gallons of waste oil at any time.

(iii) The generator transports the waste oil to an aggregation point that is owned or operated, or both, by the same generator.

(3) *Tolling arrangements*. A waste oil generator may arrange for waste oil to be transported by a transporter without an identification number if the waste oil is reclaimed under a contractual agreement under which reclaimed oil is returned by the waste oil processor/rerefiner to the generator for use as a lubricant, cutting oil or coolant. The contract, known as a tolling arrangement, shall indicate the following:

(i) The type of waste oil and the frequency of shipments.

(ii) The vehicle used to transport the waste oil to the waste oil processing/rerefining facility and to deliver recycled waste oil back to the generator is owned and operated by the waste oil processor/rerefiner.

(iii) Reclaimed oil will be returned to the generator.

**Cross References**

This section cited in 25 Pa. Code § 298.1 (relating to definitions); 25 Pa. Code § 298.10 (relating to applicability); 25 Pa. Code § 298.20 (relating to applicability); 25 Pa. Code § 298.30 (relating to waste oil collection centers); 25 Pa. Code § 298.31 (relating to waste oil aggregation points owned by the generator); 25 Pa. Code § 298.40 (relating to applicability); 25 Pa. Code § 298.44 (relating to rebuttable presumption for waste oil and flash point screening); 25 Pa. Code § 298.50 (relating to applicability); and 25 Pa. Code § 298.63 (relating to rebuttable presumption for waste oil).

### § 298.25. Source reduction strategy.

A waste oil generator subject to this subchapter shall prepare a source reduction strategy in accordance with §§ 287.51, 287.53 and 287.54 (relating to scope; source reduction strategy; and chemical analysis of waste).

### § 298.26. Biennial report.

By March 1 of each odd numbered year a waste oil generator subject to this subchapter shall file a biennial report with the Department in accordance with §§ 287.51, 287.52 and 287.55 (relating to scope; biennial report; and retained recordkeeping).

## Subchapter D. WASTE OIL COLLECTION CENTERS AND AGGREGATION POINTS

Sec.
298.30. Waste oil collection centers.
298.31. Waste oil aggregation points owned by the generator.

**Cross References**

This subchapter cited in 25 Pa. Code § 298.24 (relating to offsite shipments); and 25 Pa. Code § 298.4 (relating to offsite shipments).

### § 298.30. Waste oil collection centers.

(a) *Applicability*. This section applies to owners or operators of waste oil collection centers. A waste oil collection center is any site or facility that accepts/aggregates and stores waste oil collected from waste oil generators regulated under Subchapter C (relating to waste oil generators) who bring waste oil to the collection center in shipments of no more than 55 gallons under § 298.24(a) (relating to offsite shipments). Waste oil collection centers may also accept waste oil and oil filters from household do-it-yourselfers.

(b) *Permit-by-rule for waste oil collection centers*. For the operation of a waste oil collection center to be deemed to have a permit-by-rule, the owner or operator of a waste oil collection center shall do the following:

(1) Be a state inspection facility, oil retailer, retail service station, a facility owned or operated by a municipality, municipal authority, or state agency, or a facility owned or operated by a nonprofit organization.

(2) Not blend oil for offsite reuse.

(3) Comply with the generator standards in Subchapter C.

(4) Maintain on the premises waste oil collection tanks that are properly sheltered and protected to prevent spillage, seepage or discharge of the waste oil into the water, land and air of this Commonwealth and of sufficient size to handle returns of waste oil.



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(5) Have collection facilities for the safe and proper disposal of waste oil containers within a very close proximity to the collection tanks.

(6) Not accept water, antifreeze, other residual or hazardous wastes or other contaminants.

(7) Design, construct and operate the facility in a manner to ensure that any hazardous waste generated at the facility is not mixed with the waste oil being collected at the facility.

(8) Have a procedure for ensuring that items in paragraph (6) are not collected at the facility and that if waste oil collected at the facility contains more than 1,000 parts per million total halogens it is due to the household do-it yourselfer waste oil collected by the facility.

### § 298.31. Waste oil aggregation points owned by the generator.

(a) *Applicability*. This section applies to owners or operators of all waste oil aggregation points. A waste oil aggregation point is any site or facility that accepts, aggregates or stores waste oil collected only from other waste oil generation points owned or operated by the owner or operator of the aggregation point, from which waste oil is transported to the aggregation point in shipments of no more than 55 gallons under § 298.24(b) (relating to offsite shipments). Waste oil aggregation points may also accept waste oil from household do-it-yourselfers.

(b) *Permit-by-rule for waste oil aggregation points*. The owner or operator of an aggregation point may operate the aggregation point under a permit-by-rule. The Department may require the owner or operator of an aggregation point operated under a permit-by-rule to apply for and obtain a permit or take other appropriate action, when the generator is not in compliance with the requirements for the permit-by-rule or is conducting an activity that harms or presents a threat of harm to the health, safety or welfare of the people or the environment of this Commonwealth. For the operation of a waste oil aggregation point to be authorized by a permit-by-rule, the owner or operator shall:

(1) Comply with the generator standards in Subchapter C (relating to waste oil generators).

(2) Maintain on the premises waste oil collection tanks that are properly sheltered and protected to prevent spillage, seepage or discharge of the waste oil into the water, land and air of this Commonwealth and of sufficient size to handle returns of waste oil.

(3) Have within a very close proximity to the collection tanks, collection facilities for the safe and proper disposal of waste oil containers.

(4) Not accept water, antifreeze, other residual or hazardous wastes or other contaminants.

(5) Submit a written notice to the Department that includes the name, address and the telephone number of the facility, the individual responsible for operating the facility and a brief description of the facility.

## Subchapter E. WASTE OIL TRANSPORTER AND TRANSFER FACILITIES

Sec.
298.40. Applicability.
298.41. Restrictions on transporters and transfer facilities who are not also processors or refiners.
298.42. Notification.
298.43. Waste oil transportation.
298.44. Rebuttable presumption for waste oil and flash point screening.
298.45. Waste oil storage at transfer facility.
298.46. Tracking.
298.47. Management of wastes.
298.48. Signs on vehicles.

**Cross References**

This subchapter cited in 25 Pa. Code § 298.20 (relating to applicability); 25 Pa. Code § 298.50 (relating to applicability); 25 Pa. Code § 298.60 (relating to applicability); and 25 Pa. Code § 298.70 (relating to applicability).

### § 298.40. Applicability.

(a) *General*. Except as provided in paragraphs (1)—(4), this subchapter applies to all waste oil transporters and transfer facilities.

(1) This subchapter does not apply to onsite transportation.

(2) This subchapter does not apply to a generator who transports shipments of waste oil totaling 55 gallons or less from the generator to a waste oil collection center as specified in § 298.24(a) (relating to offsite shipments).

(3) This subchapter does not apply to a generator who transports shipments of waste oil totaling 55 gallons or less from the generator to a waste oil aggregation point owned or operated by the same generator as specified in § 298.24(b).

(4) This subchapter does not apply to transportation of waste oil from household do-it-yourselfers to a regulated waste oil generator, collection center, aggregation point, transfer facility, processor/rerefiner or burner subject to this chapter. Except as provided in paragraphs (1)—(3), this subchapter does apply to transportation of collected household do-it-yourselfer waste oil from regulated waste oil generators, collection centers, aggregation points or other facilities where household do-it-yourselfer waste oil is collected.

(b) *Imports and exports*. A transporter who imports waste oil into or exports waste oil out of this Commonwealth is subject to this subchapter from the time the waste oil enters until the time it exits this Commonwealth.

(c) *Trucks used to transport hazardous waste*. Unless trucks previously used to transport hazardous waste are emptied as described in 40 CFR 261.7 (relating to residues of hazardous waste in empty containers) incorporated by reference in § 261a.1 (relating to incorporation by reference, purpose and scope), and modi-



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fied in § 261a.7 (relating to residues of hazardous waste in empty containers) prior to transporting waste oil, the waste oil is considered to have been mixed with the hazardous waste and shall be managed as hazardous waste unless, under § 298.10(b)(2) (relating to applicability), the hazardous waste/waste oil mixture is determined not to exhibit the characteristic of ignitability.

(d) *Other applicable provisions*. A waste oil transporter or transfer facility that conducts the following activities is also subject to other applicable provisions of this chapter as indicated in paragraphs (1)—(5):

(1) A transporter or transfer facility that generates waste oil shall also comply with Subchapter C (relating to waste oil generators).

(2) A transporter or transfer facilty that processes or rerefines waste oil, except as provided in § 298.41 (relating to restrictions on transporters and transfer facilities who are not also processors or rerefiners), shall also comply with Subchapter F (relating to waste oil processing/refining facilities).

(3) A transporter or transfer facility that burns off-specification waste oil for energy recovery shall also comply with Subchapter G (relating to waste oil burners who burn off-specification waste oil for energy recovery).

(4) A transporter or transfer facility that directs shipments of off-specification waste oil from its facility to a waste oil burner or first claims that waste oil that is to be burned for energy recovery meets the waste oil fuel specifications in § 298.11 (relating to waste oil specifications) shall also comply with Subchapter H (relating to waste oil fuel marketers).

(5) A transporter or transfer facility shall dispose of waste oil in accordance with Article VII or IX (relating to hazardous waste management; and residual waste management).

## § 298.41. Restrictions on transporters and transfer facilities who are not also processors or rerefiners.

(a) A waste oil transporter may, at a transfer facility authorized under § 298.45 (relating to waste oil storage at transfer facilities), consolidate or aggregate loads of waste oil for purposes of transportation. Except as provided in subsections (b) and (c), waste oil transporters may not process waste oil unless they also comply with the requirements for processors/rerefiners in Subchapter F (relating to waste oil processing/rerefining facilities).

(b) A transporter or transfer facility may conduct incidental waste oil processing operations that occur in the normal course of waste oil transportation—for example, settling and water separation that occurs in a transport vehicle or in a single consolidation tank-but that are not designed to produce (or make more amenable for production of) waste oil derived products unless they also comply with the processor/rerefiner requirements in Subchapter F.

(c) A transporter or transfer facility managing waste oil that is removed from oil bearing electrical transformers and turbines and filtered by the transporter in the course of loading or unloading waste oil or at a transfer facility authorized

under § 298.45 prior to being returned to its original use is not subject to the waste oil processor/rerefiner requirements in Subchapter F.

**Cross References**

This section cited in 25 Pa. Code § 298.40 (relating to applicability); and 25 Pa. Code § 298.50 (relating to applicability).

## § 298.42. Notification.

(a) *Identification numbers*. A waste oil transporter or transfer facility shall have an EPA identification number.

(b) *Mechanics of notification*. A waste oil transporter or transfer facility that has not received an identification number may obtain one by notifying the EPA Region III Administrator of its waste oil activity by submitting one of the following:

(1) A completed EPA form 8700-12. (To order information for EPA form 8700-12, call RCRA/Superfund hotline at (800) 424-9346 or (703) 920-9810.)

(2) A letter requesting an identification number. Call RCRA/Superfund hotline to determine where to send a letter requesting an identification number. The letter should include the following information:

(i) The transporter or transfer facility company name.

(ii) The owner of the transporter or transfer facility company.

(iii) The mailing address for the transporter or transfer facility.

(iv) The name and telephone number for the transporter or transfer facility point of contact.

(v) The type of transport activity—for example, transport only, transport and transfer facility, transfer facility only.

(vi) The location of all transfer facilities at which waste oil is stored.

(vii) The name and telephone number for a contact at each transfer facility.

## § 298.43. Waste oil transportation.

(a) *Deliveries*. A waste oil transporter shall deliver all waste oil received to one of the following:

(1) Another waste oil transporter, if the transporter has obtained an identification number.

(2) A waste oil processing/rerefining facility who has obtained an identification number.

(3) An off-specification waste oil burner facility who has obtained an identification number.

(4) An on-specification waste oil burner facility.

(5) A waste oil transfer facility that has obtained an identification number.

(b) *Department of Transportation requirements*. A waste oil transporter shall comply with the applicable requirements under the United States Department of



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Transportation regulations in 49 CFR Parts 171—180. Persons transporting waste oil that meets the definition of a hazardous material in 49 CFR 171.8 (relating to definitions and abbreviations) shall comply with applicable regulations in 49 CFR Parts 171—180.

(c) *Waste oil discharges*.

(1) In the event of a discharge of waste oil during transportation, the transporter shall notify the appropriate Departmental office of emergency response and take appropriate immediate action to protect human health and the environment—for example, notify local authorities, dike the discharge area—and the like.

(2) If a discharge of waste oil occurs during transportation and the Department determines that immediate removal of the waste oil is necessary to protect human health or the environment, the Department may authorize the removal of the waste oil by transporters who do not have identification numbers.

(3) An air, rail, highway or water transporter who has discharged waste oil shall do the following:

(i) Give notice if required by 49 CFR 171.15 (relating to immediate notice of certain hazardous materials incidents) to the National Response Center (800) 424-8802 or (202) 426-2675).

(ii) Report in writing as required by 49 CFR 171.16 (relating to detailed hazardous materials incident reports) to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, D.C. 20590.

(4) A water transporter who has discharged waste oil shall give notice as required by 33 CFR 153.203 (relating to procedure for the notice of discharge).

(5) A transporter shall clean up any waste oil discharge that occurs during transportation or take action as required or approved by the Department so that the waste oil discharge no longer presents a hazard to human health or the environment.

**§ 298.44. Rebuttable presumption for waste oil and flash point screening.**

(a) To ensure that waste oil is not a hazardous waste under the rebuttable presumption of § 298.10(b)(1)(ii) (relating to applicability), the waste oil transporter and the transfer facility shall determine whether the total halogen content of waste oil being transported or stored at a transfer facility is above or below 1,000 parts per million. The waste oil transporter shall make the determination at the generator's location, prior to loading on the transportation vehicle. The waste oil transfer facility shall make the determination prior to the unloading of a transportation vehicle at the transfer facility.

(b) The transporter and transfer facility shall make this total halogen determination by:

(1) Testing the waste oil.

(2) Applying knowledge of the halogen content of the waste oil in light of the materials or processes used.

(c) If the waste oil contains greater than or equal to 1,000 parts per million total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in 40 CFR Part 261, Subpart D (relating to lists of hazardous waste), incorporated by reference in § 261a.1 (relating to incorporation by reference, purpose and scope). The owner or operator may rebut the presumption by demonstrating that the waste oil does not contain hazardous waste. For example, by using an analytical method from SW-846, current edition, to show that the waste oil does not contain significant concentrations of halogenated hazardous constituents identified in 40 CFR Part 261, Appendix VIII (relating to hazardous constituents), incorporated by reference in § 261a.1. EPA publication SW-846, current edition, is available from the Government Printing Office, Superintendent of Documents, Post Office Box 371954, Pittsburgh, Pennsylvania 15250-7954, (202) 512-1800 (Document number 955-001-00000-1). Another way of rebutting this presumption is to demonstrate that the halogenated constituents are from wastes generated by households and therefore under 40 CFR 261.4(b)(1) (relating to exclusions), incorporated by reference in § 261a.1 are excluded from regulation as a hazardous waste.

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 298.24(c) (relating to offsite shipments), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if the oils/fluids are recycled in any other manner, or disposed.

(2) The rebuttable presumption does not apply to waste oils contaminated with CFCs removed from refrigeration units if the CFCs are destined for reclamation. The rebuttable presumption does apply to waste oils contaminated with CFCs that have been mixed with waste oil from sources other than refrigeration units.

(d) The owner or operator of a waste oil transfer facility shall test waste oil for flash point or shall request approval from the Department for an alternative method to screen waste oil for the purposes of detecting adulteration of waste oil and providing a safety measure in determining the potential for a waste oil to initiate a fire during storage and processing.

(e) Records of analyses conducted or information used to comply with subsections (a)—(d) shall be maintained by the transporter and transfer facility for at least 3 years.

**Cross References**

This section cited in 25 Pa. Code § 252.6 (relating to accreditation-by-rule); and 25 Pa. Code § 298.45 (relating to waste oil storage at transfer facility).



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**§ 298.45. Waste oil storage at transfer facility.**

(a) *Applicability*. This section applies to a waste oil transfer facility. A waste oil transfer facility is a transportation related facility including loading docks, parking areas, storage areas and other areas where shipments of waste oil are received or held during normal course of transportation.

(b) *Permits*.

(1) The owners or operators of a transfer facility shall obtain a permit issued under Chapters 287 and 293 (relating to residual waste management—general provisions; and transfer facilities for residual waste).

(2) A general permit is only available if all of the following are met:

(i) The owner or operator of the waste oil transfer facility is responsible for transporting the waste oil from the generator to the transfer facility or the waste oil is from a household do-it-yourselfer waste oil generator.

(ii) The owner or operator of the waste oil transfer facility only:

(A) Consolidates/aggregates waste oil.

(B) Conducts incidental waste oil processing operations that occur in the normal course of waste oil transportation or in a single consolidation tank.

(3) The owners or operators of a waste oil transfer facility authorized prior to June 2, 2001 by a general permit issued prior to June 2, 2001, may continue to operate the facility under the general permit for the term of the permit. At the end of the permit term, this general permit is not renewable. The owner or operator of the transfer facility may only continue to operate the facility after the term has expired on the general permit if the owner or operator has obtained an individual permit issued under Chapters 287 and 293.

(4) A copy of the protocol for satisfying the requirements of § 298.44 (relating to rebuttable presumption for waste oil and flashpoint screening) shall be maintained at a facility operating under paragraph (2) or (3).

(c) *Storage units*. The owner or operator of a waste oil transfer facility may not store waste oil in units other than tanks, containers or units subject to regulation under Chapter 264a or 265a (relating to owners and operators of hazardous waste treatment, storage and disposal facilities; and interim status standards for owners and operators of hazardous waste treatment, storage and disposal facilities).

(d) *Condition of units*. A container or aboveground storage tank used to store waste oil at transfer facilities shall meet the following requirements:

(1) *Be in good condition.* For example—containers and aboveground storage tanks may not exhibit severe rusting, apparent structural defects or deterioration.

(2) *Not leaking (no visible leaks).*

(e) *Secondary containment for containers*. A container used to store waste oil at transfer facilities shall be equipped with a secondary containment system.

(1) The secondary containment system shall consist of one of the following:

(i) Dikes, berms or retaining walls and a floor. The floor shall cover the entire area within the dikes, berms or retaining walls.

(ii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, shall be sufficiently impervious to the migration of waste oil to prevent any waste oil released into the containment system from migrating out of the system to the soil, groundwater or surface water.

(f) *Additional requirements for containers*. The total container height of a group of containers may not exceed 9 feet. The maximum width and depth of a group of containers shall provide a configuration and aisle space which ensures access for purposes of inspection, containment and remedial action with emergency vehicles and equipment.

(g) *Additional requirements for storage tanks*. Storage tanks used to store waste oil shall be designed and operated in accordance with § 299.122(b) (relating to storage tanks). For existing aboveground storage tanks, an alternative design to secondary containment may be demonstrated where the tank meets the ground.

(h) *Labels*.

(1) Except as provided in paragraphs (2) and (3), a container or aboveground tank used to store waste oil at transfer facilities shall be labeled or marked clearly with the words "waste oil" by no later than December 2, 2001.

(2) Containers or aboveground storage tanks which are labeled or marked with the words "used oil" on June 2, 2001, shall be labeled or marked with the words "waste oil" by no later than June 2, 2003.

(3) Containers used in transportation may be labeled or marked with the words "used oil," instead of "waste oil," or the words required by a receiving state if the containers and vehicles are destined for recycling or disposal outside of this Commonwealth. If a person accepts waste oil from or delivers waste oil to a generator, transfer facility, or processor/rerefiner in this Commonwealth in a container used in transportation, paragraph (1) or (2) shall be met.

(4) Fill pipes used to transfer waste oil into underground storage tanks at transfer facilities shall be labeled or marked clearly with the words "waste oil" by no later than December 2, 2001. Fill pipes which are labeled or marked with the words "used oil" on June 2, 2001, shall be labeled or marked with the words "waste oil" by no later than June 2, 2003.

(i) *Response to releases*. Upon detection of a release of waste oil to the environment not subject to Chapter 245, Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank



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facilities and other responsible parties) which has occurred after June 2, 2001, the owner or operator of a transfer facility shall perform the following cleanup steps:

(1) Stop the release.

(2) Contain the released waste oil.

(3) Clean up and manage properly the released waste oil and other materials.

(4) If necessary, repair or replace any leaking waste oil storage containers or tanks prior to returning them to service.

(j) *Additional requirements*. In addition to the requirements of this subchapter, a waste oil transfer facility is subject to §§ 293.109 and 293.241—293.243. Waste oil transfer facilities are subject to all applicable spill prevention, control and countermeasures (40 CFR Part 112 (relating to oil pollution prevention)) in addition to the requirements of this subchapter. A waste oil transfer facility is also subject to the underground storage tank standards in Chapter 245 (relating to administration of the storage tank and spill prevention program) for waste oil stored in underground storage tanks whether or not the waste oil exhibits any characteristics of hazardous waste.

**Cross References**

This section cited in 25 Pa. Code § 298.41 (relating to restrictions on transporters and transfer facilities who are not also processors or refiners).

## § 298.46. Tracking.

(a) *Acceptance*. A waste oil transporter and transfer facility shall keep a record of each waste oil shipment accepted for transport. Records for each shipment shall include the following:

(1) The name and address of the generator, transporter, transfer facility or processor/rerefiner who provided the waste oil for transport.

(2) The identification number (if applicable) of the generator, transporter, transfer facility or processor/rerefiner who provided the waste oil for transport.

(3) The quantity of waste oil accepted.

(4) The date of acceptance.

(5) The signature of a representative of the generator, transporter, transfer facility or processor/rerefiner who provided the waste oil for transport, dated upon receipt of the waste oil.

(b) *Deliveries*. A waste oil transporter and transfer facility shall keep a record of each shipment of waste oil that is delivered to another waste oil transporter, or to a waste oil burner, processor/rerefiner, transfer facility or disposal facility. Records of each delivery shall include the following:

(1) The name and address of the receiving facility or transporter.

(2) The identification number of the receiving facility or transporter.

(3) The quantity of waste oil delivered.

(4) The date of delivery.

(5) The signature, dated upon receipt of the waste oil, of a representative of the receiving facility or transporter.

(6) An intermediate rail transporter is not required to sign the record of delivery.

(c) *Exports of waste oil*. Waste oil transporters and transfer facilities must maintain the records described in subsection (b)(1)—(4) for each shipment of waste oil exported to a foreign country.

(d) *Record retention*. The records described in subsections (a)—(c) shall be maintained for at least 3 years.

### § 298.47. Management of wastes.

A transporter or transfer facility who generates wastes from the storage or transport of waste oil shall manage the wastes as specified in § 298.10(e) (relating to applicability).

### § 298.48. Signs on vehicles.

(a) A vehicle that is ordinarily or primarily used for the transportation of waste oil shall bear a sign that meets the following:

(1) The sign shall include the name and business address of the waste oil transporter that owns the vehicle.

(2) The sign shall have lettering that is 6 inches in height. The required information shall be clearly visible and easily readable.

(b) Transportation vehicles may be labeled or marked with the words "used oil," instead of "waste oil," or the words required by a receiving state if the vehicles are destined for recycling or disposal outside of this Commonwealth. If a person accepts waste oil from or delivers waste oil to a generator, transfer facility, or processor/rerefiner in this Commonwealth in a transportation vehicle, the following shall be met:

(1) Except as provided in paragraph (2), the transportation vehicle shall be labeled or marked clearly with the words "waste oil" by no later than December 2, 2001.

(2) Transportation vehicles that are marked or labeled "used oil" on December 2, 2001, shall be marked or labeled with the words "waste oil" by no later than June 2, 2003.

## Subchapter F. WASTE OIL PROCESSING/REFINING FACILITIES

Sec.
298.50. Applicability.
298.51. Notification.
298.52. General facility standards.
298.53. Rebuttable presumption for waste oil and flash point screening.

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298.54. Waste oil management.
298.55. Analysis plan.
298.56. Tracking.
298.57. Operating record and reporting.
298.58. Offsite shipments of waste oil.
298.59. Management of waste.

**Cross References**

This subchapter cited in 25 Pa. Code § 298.20 (relating to applicability); 25 Pa. Code § 298.40 (relating to applicability); 25 Pa. Code § 298.41 (relating to restrictions on transporters and transfer facilities who are not also processor or rerefiners); 25 Pa. Code § 298.60 (relating to applicability); 25 Pa. Code § 298.61 (relating to restrictions on burning); and 25 Pa. Code § 298.70 (relating to applicability).

## § 298.50. Applicability.

(a) *General*. Except as provided in this subsection, this subchapter applies to owners and operators of waste oil processing/rerefining facilities. This subchapter does not apply to:

(1) A transporter or transfer facility that conducts incidental waste oil processing operations that occur during the normal course of transportation as provided in § 298.41 (relating to restrictions on transporters and transfer facilities who are not also processors or rerefiners).

(2) A burner that conducts incidental waste oil processing operations that occur during the normal course of waste oil management prior to burning as provided in § 298.61(b) (relating to restrictions on burning).

(b) *Other applicable provisions*. A waste oil processor/rerefiner who conducts the following activities is also subject to other applicable provisions of this chapter as indicated in paragraphs (1)—(5).

(1) A processor/rerefiner who generates waste oil shall also comply with Subchapter C (relating to waste oil generators).

(2) A processors/rerefiner who transports waste oil shall also comply with Subchapter E (relating to waste oil transporter and transfer facilities).

(3) Except as provided in subparagraphs (i) and (ii), a processor/rerefiner who burns off-specification waste oil for energy recovery shall also comply with Subchapter G (relating to waste oil burners who burn off-specification waste oil for energy necessary). A processor/rerefiner burning waste oil for energy recovery under the following conditions is not subject to Subchapter G.

(i) The waste oil is burned in an onsite space heater that meets the requirements of § 298.23 (relating to onsite burning in space heaters).

(ii) The waste oil is burned for purposes of waste oil processing which is considered burning incidentally to waste oil processing.

(4) A processor/rerefiner who directs shipments of off-specification waste oil from its facility to a waste oil burner or first claims that waste oil that is to be burned for energy recovery meets the waste oil fuel specifications in

§ 298.11 (relating to waste oil specifications) shall also comply with Subchapter H (relating to waste oil fuel marketers).

(5) A processor/rerefiner shall dispose of waste oil in accordance with Article VII or IX (relating to hazardous waste management; and residual waste management).

(c) *Permits*.

(1) The owner or operator of a waste oil processing facility shall obtain a permit issued under Chapters 287 and 297 (relating to residual waste management—general provisions; and incinerators and other processing facilities).

(2) A general permit is only available for the following types of waste oil processing/rerefining facilities:

(i) A mobile waste oil processor/rerefiner that operates at the site of waste oil generation.

(ii) A waste oil processor/rerefiner that reclaims waste oil under toll arrangements as specified in § 298.24(3) (relating to offsite shipments).

(3) The owner or operator of a facility authorized prior to June 2, 2001, by a waste oil processing/rerefining general permit issued prior to June 2, 2001, may continue to operate its facility under the general permit for the permit term. At the end of the permit term, this general permit is not renewable. The owner or operator of the waste oil processing/rerefining facility after the term has expired on the general permit may only continue to operate the facility if the owner or operator has obtained an individual permit issued under Chapters 287 and 297.

## § 298.51. Notification.

(a) *Identification numbers*. A waste oil processor or rerefiner who has not previously obtained an identification number shall comply with 40 CFR 264.11 (relating to identification number), incorporated by reference in § 264a.1 (relating to incorporation by reference, purpose, scope and reference), and modified in § 264a.11 (relating to identification number and transporter license) and obtain an EPA identification number.

(b) *Mechanics of notification*. A waste oil processor or rerefiner who has not received an identification number may obtain one by notifying the regional administrator of the waste oil activity by submitting one of the following:

(1) A completed EPA form 8700-12 (to obtain EPA form 8700-12, call RCRA/Superfund hotline at (800) 424-9346 or (703) 920-9810).

(2) A letter requesting an identification number. Call RCRA/Superfund hotline to determine where to send a letter requesting an identification number. The letter should include the following information:

(i) The processor or rerefiner company name.

(ii) The owner of the processor or rerefiner company.

(iii) The mailing address for the processor or rerefiner.



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(iv) The name and telephone number for the processor or rerefiner point of contact.

(v) The type of waste oil activity-for example, process only, process and rerefine.

(vi) The location of the processor or rerefiner facility.

**§ 298.52. General facility standards.**

(a) *Preparedness and prevention*. The owner and operator of a waste oil processor or rerefiners facility shall comply with the following requirements:

(1) *Maintenance and operation of facility*. A facility shall be maintained and operated to minimize the possibility of a fire, explosion or any unplanned sudden or nonsudden release of waste oil to air, soil or surface water which could threaten human health or the environment.

(2) *Required equipment*. A facility shall be equipped with the following, unless none of the hazards posed by waste oil handled at the facility could require a particular kind of equipment specified in subparagraphs (i)—(iv):

(i) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel.

(ii) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments or State or local emergency response teams.

(iii) A portable fire extinguisher, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas or dry chemicals), spill control equipment and decontamination equipment.

(iv) Water at adequate volume and pressure to supply water hose streams, foam producing equipment, or automatic sprinklers or water spray systems.

(3) *Testing and maintenance of equipment*. The facility communications or alarm systems, fire protection equipment, spill control equipment and decontamination equipment, when required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

(4) *Access to communications or alarm system*.

(i) Whenever waste oil is being poured, mixed, spread or otherwise handled, the personnel involved in the operation shall have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless the device is not required in paragraph (2).

(ii) When there is just one employee on the premises while the facility is operating, the employee shall have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless the device is not required in paragraph (2).

(5) *Required aisle space*. The owner or operator shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(6) *Arrangements with local authorities*.

(i) The owner or operator shall attempt to make the following arrangements, as appropriate, for the type of waste oil handled at the facility and the potential need for the services of these organizations:

(A) Arrangements to familiarize police, fire departments and emergency response teams with the layout of the facility, properties of waste oil handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility and possible evacuation routes.

(B) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department and agreements with any others to provide support to the primary emergency authority.

(C) Agreements with State emergency response teams, emergency response contractors and equipment suppliers.

(ii) Arrangements to familiarize local hospitals with the properties of waste oil handled at the facility and the types of injuries or illnesses which could result from fires, explosions or releases at the facility.

(iii) If State or local authorities decline to enter into these arrangements, the owner or operator shall document the refusal in the operating record.

(b) *Contingency plan and emergency procedures*. Owners and operators of waste oil processing and rerefining facilities shall comply with the following requirements:

(1) *Purpose and implementation of contingency plan*.

(i) Each owner or operator shall have a contingency plan for the facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions or any unplanned sudden or nonsudden release of waste oil to air, soil or surface water.

(ii) The provisions of the plan shall be carried out immediately whenever there is a fire, explosion or release of waste oil which could threaten human health or the environment.

(2) *Content of contingency plan*.

(i) The contingency plan shall describe the actions facility personnel shall take to comply with paragraphs (1) and (6) in response to fires, explosions or any unplanned sudden or nonsudden release of waste oil to air, soil or surface water at the facility.

(ii) If the owner or operator has already complied with 40 CFR Part 264, Subparts C and D (relating to preparedness and prevention; and contin-



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gency plan and emergency procedures), incorporated by reference in § 264a.1 (relating to incorporation by reference, purpose, scope and reference), and modified in § 264a.56 (relating to emergency procedures) or has already prepared some other emergency or contingency plan, the owner or operator need only amend that plan to incorporate waste oil management provisions that are sufficient to comply with this chapter.

(iii) The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors and State and local emergency response teams to coordinate emergency services, under subsection (a)(6).

(iv) The plan shall list names, addresses and the office and home phone numbers of the persons qualified to act as emergency coordinators, as described in paragraph (5), and this list shall be kept up to date. If more than one person is listed, one person shall be named as primary emergency coordinator and the others shall be listed in the order in which they will assume responsibility as alternates.

(v) The plan shall include a list of all emergency equipment at the facility—such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external) and decontamination equipment—if this equipment is required. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(vi) The plan shall include an evacuation plan for facility personnel if there is a possibility that evacuation could be necessary. This plan shall describe signals to be used to begin evacuation, evacuation routes and alternate evacuation routes, in cases where the primary routes could be blocked by releases of waste oil or fires.

(3) *Copies of contingency plan*. A copy of the contingency plan and revisions to the plan shall be:

(i) Maintained at the facility.

(ii) Submitted to all local police departments, fire departments, hospitals and State and local emergency response teams that may be called upon to provide emergency services.

(4) *Amendment of contingency plan*. The contingency plan shall be reviewed and immediately amended, if necessary, whenever:

(i) Applicable regulations are revised.

(ii) The plan fails in an emergency.

(iii) The facility changes in its design, construction, operation, maintenance or other circumstances in a way that materially increases the potential for fires, explosions or releases of waste oil, or changes the response necessary in an emergency.

(iv) The list of emergency coordinators changes.

(v) The list of emergency equipment changes.

(5) *Emergency coordinator*. At all times, there shall be at least one employe either on the facility premises or on call—for example, available to respond to an emergency by reaching the facility within a short period of time—with the responsibility for coordinating all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan, the operations and activities at the facility, the location and characteristic of waste oil handled, the location of all records within the facility and facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan.

(6) *Emergency procedures*.

(i) Whenever there is an imminent or actual emergency situation, the emergency coordinator, or the designee when the emergency coordinator is on call, shall immediately do the following:

(A) Activate internal facility alarms or communication systems, if applicable, to notify all facility personnel.

(B) Notify appropriate State or local agencies with designated response roles if their help is needed.

(ii) Whenever there is a release, fire or explosion, the emergency coordinator shall immediately identify the character, exact source, amount and real extent of any released materials. The emergency coordinator may do this by observation or review of facility records of manifests and, if necessary, by chemical analysis.

(iii) Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire or explosion. This assessment shall consider both direct and indirect effects of the release, fire or explosion-for example, the effects of any toxic, irritating or asphyxiating gases that are generated or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions.

(iv) If the emergency coordinator determines that the facility has had a release, fire or explosion which could threaten human health or the environment, outside the facility, the emergency coordinator shall report the findings as follows:

(A) If the assessment indicated that evacuation of local areas may be advisable, the emergency coordinator shall immediately notify the appropriate Departmental office of emergency response and the appropriate local authorities. The emergency coordinator shall be available to help appropriate officials decide whether local areas should be evacuated.

(B) The emergency coordinator shall immediately notify either the government official designated as the on-scene coordinator for the geographical area in the applicable regional contingency plan or the National Response Center (using the 24-hour toll free number (800) 424-8802). The report shall include:



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(1) The name and telephone number of reporter.

(2) The name and address of the facility.

(3) The time and type of incident-for example, release or fire.

(4) The name and quantity of materials involved, to the extent known.

(5) The extent of injuries, if any.

(6) The possible hazards to human health, or the environment, outside the facility.

(v) During an emergency, the emergency coordinator shall take all reasonable measures necessary to ensure that fires, explosions and releases do not occur, recur or spread to other waste oil or hazardous waste at the facility. These measures shall include, if applicable, stopping processes and operation, collecting and containing released waste oil, and removing or isolating containers.

(vi) If the facility stops operation in response to a fire, explosion or release, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation or ruptures in valves, pipes or other equipment, wherever this is appropriate.

(vii) Immediately after an emergency, the emergency coordinator shall provide for recycling, storing or disposing of recovered waste oil, contaminated soil or surface water, or any other material that results from a release, fire or explosion at the facility.

(viii) The emergency coordinator shall ensure that, in the affected areas of the facility, the following conditions apply:

(A) No waste or waste oil that may be incompatible with the released material is recycled, treated, stored or disposed of until cleanup procedures are completed.

(B) The emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(C) The owner or operator shall notify the Department and applicable local authorities that the facility is in compliance with clauses (A) and (B) before operations are resumed in the affected areas of the facility.

(ix) The owner or operator shall note in the operating record the time, date and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the owner or operator shall submit a written report on the incident to the Department. The report shall include the following:

(A) The name, address and telephone number of the owner or operator.

(B) The name, address and telephone number of the facility.

(C) The date, time and type of incident-for example, fire or explosion.

(D) The name and quantity of materials involved.

(E) The extent of injuries, if any.

(F) An assessment of actual or potential hazards to human health or the environment, if applicable.

(G) An estimated quantity and disposition of recovered material that resulted from the incident.

**Cross References**

This section cited in 25 Pa. Code § 298.57 (relating to operating record and reporting).

**§ 298.53. Rebuttable presumption for waste oil and flash point screening.**

(a) To ensure that waste oil managed at a waste oil processing/rerefining facility is not hazardous waste under the rebuttable presumption of § 298.10(b)(1)(ii) (relating to applicability), the owner or operator of a waste oil processing/rerefining facility shall determine whether the total halogen content of waste oil managed at the facility is above or below 1,000 parts per million. The waste oil processing/rerefining facility shall make the determination prior to the unloading of a transportation vehicle at the processing/rerefining facility.

(b) The owner or operator shall make this total halogen determination by either:

(1) Testing the waste oil.

(2) Applying knowledge of the halogen content of the waste oil in light of the materials or processes used.

(c) Waste oil containing more than 1,000 parts per million total halogens, is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in 40 CFR Part 261, Subpart D (relating to lists of hazardous waste), incorporated by reference in § 261a.1 (relating to incorporation by reference, purpose and scope). Persons may rebut this presumption by demonstrating that the waste oil does not contain hazardous waste. For example, by using an analytical method from the current edition of SW-846 to show that the waste oil does not contain significant concentrations of halogenated hazardous constituents identified in 40 CFR Part 251, Appendix VIII (relating to hazardous constituents), incorporated by reference in § 261a.1. EPA publication SW-846, current edition, is available from the Government Printing Office, Superintendent of Documents, Post Office Box 371954, Pittsburgh, Pennsylvania 15250-7954, (202) 512-1800 (Document number 955-001-00000-1). Another way of rebutting this presumption is to demonstrate that the halogenated constituents are from wastes generated by households and therefore under 40 CFR 261.4(b)(1) (relating to exclusions), incorporated by reference in § 261a.1 are excluded from regulation as hazardous waste.

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if the oils/fluids are recycled in any other manner, or disposed.



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(2) The rebuttable presumption does not apply to waste oils contaminated with CFCs removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to waste oils contaminated with CFCs that have been mixed with waste oil from sources other than refrigeration units.

(d) The owner or operator of a waste oil processing/refining facility shall test waste oil for flash point or shall request approval from the Department for an alternative method to screen waste oil for the purposes of detecting adulteration of waste oil and providing a safety measure in determining the potential for a waste oil to initiate a fire during storage and processing.

**Cross References**

This section cited in 25 Pa. Code § 298.55 (relating to analysis plan).

## § 298.54. Waste oil management.

(a) *Management units*. Waste oil processor/rerefiners may not store waste oil in units other than tanks, containers, or units subject to regulation under Chapters 264a or 265a (relating to owners and operators of hazardous waste treatment, storage and disposal facilities; and interim status standards for owners and operators of hazardous waste treatment, storage and disposal facilities).

(b) *Condition of units*. A container or aboveground tank used to store or process waste oil at waste oil processing and rerefining facilities shall meet the following conditions:

(1) *Be in good condition*. For example, containers and aboveground storage tanks may not exhibit severe rusting, apparent structural defects or deterioration.

(2) *Not leaking (no visible leaks)*.

(c) *Secondary containment for containers*. A container used to store or process waste oil at waste oil processing and rerefining facilities shall be equipped with a secondary containment system.

(1) The secondary containment system shall consist of one of the following:

(i) Dikes, berms or retaining walls and a floor. The floor shall cover the entire area within the dike, berm or retaining wall.

(ii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, shall be sufficiently impervious to the migration of waste oil to prevent any waste oil released into the containment system from migrating out of the system to the soil, groundwater or surface water.

(d) *Additional requirements for containers*. The total container height of a group of containers may not exceed 9 feet. The maximum width and depth of a group of containers shall provide a configuration and aisle space which ensures

access for purposes of inspection, containment and remedial action with emergency vehicles and equipment.

(e) *Additional requirements for storage tanks*. Storage tanks used to store waste oil shall be designed and operated in accordance with § 299.122(b) (relating to storage tanks). For existing aboveground storage tanks, an alternative design to secondary containment may be demonstrated where the tank meets the ground.

(f) *Labels*.

(1) Except as provided in paragraphs (2) and (3), a container or aboveground tank used to store waste oil at processing and rerefining facilities shall be labeled or marked clearly with the words "waste oil" by no later than December 2, 2001.

(2) Containers or aboveground storage tanks which are labeled or marked with the words "used oil" on June 2, 2001, shall be labeled or marked with the words "waste oil" by no later than June 2, 2003.

(3) Containers used in transportation may be labeled or marked with the words "used oil," instead of "waste oil," or the words required by a receiving state if the containers and vehicles are destined for recycling or disposal outside of this Commonwealth. If a person accepts waste oil from or delivers waste oil to a generator, transfer facility, or processor/rerefiner in pennsylvania in a container used in transportation, paragraph (1) or (2) shall be met.

(4) Fill pipes used to transfer waste oil into underground storage tanks at processing or rerefining facilities shall be labeled or marked clearly with the words "waste oil" by no later than December 2, 2001. Fill pipes which are labeled or marked with the words "used oil" on June 2, 2001, shall be labeled or marked with the words "waste oil" by no later than June 2, 2003.

(g) *Response to releases*. Upon detection of a release of waste oil to the environment not subject to Chapter 245, Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties) which has occurred after June 2, 2001. An owner or operator shall perform the following cleanup steps:

(1) Stop the release.

(2) Contain the released waste oil.

(3) Clean up and properly manage the released waste oil and other materials.

(4) If necessary, repair or replace any leaking waste oil storage containers or tanks prior to returning them to service.

(h) *Closure*.

(1) *Aboveground storage tanks*. The owner and operator who stores or processes waste oil in an aboveground tank shall comply with the following requirements:

(i) At closure of a tank system, the owner or operator shall remove or decontaminate waste oil residues in tanks, contaminated containment system



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components, contaminated soils and structures and equipment contaminated with waste oil, and manage them as hazardous waste, unless the materials are not hazardous waste under this chapter.

(ii) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in subsection (i)(1)(i), the owner or operator shall close the tank system and perform post-closure care in accordance with the closure and postclosure care requirements that apply to hazardous waste landfills. (See 40 CFR 265.310 (relating to closure and post-closure care), incorporated by reference in § 265a.1 (relating to incorporation by reference, purpose, scope and applicability).

(2) *Containers*. An owner or operator who store waste oil in containers shall comply with the following requirements:

(i) At closure, containers holding waste oils or residues of waste oil shall be removed from the site.

(ii) The owner or operator shall remove or decontaminate waste oil residues, contaminated containment system components, contaminated soils and structures and equipment contaminated with waste oil, and manage them as hazardous waste, unless the materials are not hazardous waste under Chapter 261a (relating to identification and listing of hazardous waste).

(i) *Additional requirements*. In addition to the requirements of this subchapter, waste oil processor/rerefiners are subject to all applicable spill prevention, control and countermeasures (40 CFR Part 112), 40 CFR Part 264, Subparts C and D (relating to preparedness and prevention; and contingency plan and emergency procedures), incorporated by reference in § 264a.1 (relating to incorporation by reference, purpose, scope and reference), and modified in § 264a.56 (relating to emergency procedures). In addition to the requirements of this subchapter, a waste oil processor/rerefiner is also subject to the underground storage tank standards in Chapter 245 (relating to administration of the storage tank and spill prevention program) for waste oil stored in underground storage tanks whether or not the waste oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subchapter.

## § 298.55. Analysis plan.

The owner or operator of a waste oil processing or rerefining facility shall develop and follow a written analysis plan describing the procedures that will be used to comply with the analysis requirements of § 298.53 (relating to rebuttable presumption for waste oil and flashpoint screening) and, if applicable, § 298.72 (relating to on-specification waste oil fuel). The owner or operator shall keep the plan at the facility.

(1) *Rebuttable presumption for waste oil and flash point screening in § 298.53*. At a minimum, the plan shall specify the following:

(i) Whether sample analyses or knowledge of the halogen content of the waste oil will be used to make this determination.

(ii) If sample analyses are used to make this determination:

(A) The sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:

(I) One of the sampling methods in 40 CFR Part 261, Appendix I (relating to representative sampling methods) incorporated by reference in § 261a.1 (relating to incorporation by reference, purpose and scope).

(II) A method shown to be equivalent under 40 CFR 260.20 and 260.21 (relating to general; and petitions for equivalent testing or analytical methods), incorporated by reference in § 260a.1 (relating to incorporated by reference, purpose, scope and applicablity).

(B) The frequency of sampling to be performed, and whether the analysis will be performed onsite or offsite.

(C) The methods used to analyze waste oil for the parameters specified in § 298.53.

(iii) The type of information that will be used to determine the halogen content of the waste oil.

(2) *On-specification waste oil fuel in § 298.72*. At a minimum, the plan shall specify the following if § 298.72 applies:

(i) Whether sample analyses or other information will be used to make this determination.

(ii) If sample analyses are used to make this determination:

(A) The sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using one of the following:

(I) One of the sampling methods in 40 CFR Part 261, Appendix I, incorporated by reference in § 261a.1.

(II) A method shown to be equivalent under 40 CFR 260.20 and 260.21 incorporated by reference in § 260a.1.

(B) Whether waste oil will be sampled and analyzed prior to or after any waste oil processing/rerefining.

(C) The frequency of sampling to be performed and whether the analysis will be performed onsite or offsite.

(D) The methods used to analyze waste oil for the parameters specified in § 298.72.

(iii) The type of information that will be used to make the on-specification waste oil fuel determination.

## § 298.56. Tracking.

(a) *Acceptance*. A waste oil processor/rerefiner shall keep a record of each waste oil shipment accepted for waste oil processing/rerefining. These records



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may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment shall include the following information:

(1) The name and address of the transporter who delivered the waste oil to the processor/rerefiner.

(2) The name and address of the generator, transfer facility or processor/rerefiner from whom the waste oil was sent for waste oil processing/rerefining.

(3) The identification number of the transporter who delivered the waste oil to the processor/rerefiner.

(4) The identification number (if applicable) of the generator, transfer facility or processor/rerefiner from whom the waste oil was sent for waste oil processing/rerefining.

(5) The quantity of waste oil accepted.

(6) The date of acceptance.

(b) *Delivery*. A waste oil processor/rerefiner shall keep a record of each shipment of waste oil that is shipped to a waste oil burner, processor/rerefiner, transfer facility or disposal facility. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment shall include the following information:

(1) The name and address of the transporter who delivers the waste oil to the burner, processor/rerefiner, transfer facility or disposal facility.

(2) the name and address of the burner, processor/rerefiner, transfer facility or disposal facility who will receive the waste oil.

(3) The identification number of the transporter who delivers the waste oil to the burner, transfer facility, processor/rerefiner or disposal facility.

(4) The identification number of the burner, processor/rerefiner, transfer facility or disposal facility who will receive the waste oil.

(5) The quantity of waste oil shipped.

(6) The date of shipment.

(c) *Record retention*. The records described in subsections (a) and (b) shall be maintained for at least 3 years.

## § 298.57. Operating record and reporting.

(a) *Operating record*.

(1) The owner or operator shall keep a written operating record at the facility.

(2) The following information shall be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

(i) Records and results of waste oil analysis performed as described in the analysis plan required under § 298.55 (relating to analysis plan).

(ii) Summary reports and details of all incidents that require implementation of the contingency plan as specified in § 298.52(b) (relating to general facility standards).

(b) *Reporting*. A waste oil processor/rerefiner shall report to the Department in the form of a letter, on a biennial basis (by March 1 of each even numbered year), the following information concerning waste oil activities during the previous calendar year:

(1) The identification number, name, and address of the processor/rerefiner.

(2) The calendar year covered by the report.

(3) The quantities of waste oil accepted for waste oil processing/rerefining and the manner in which the waste oil is processed/rerefined, including the specific processes employed.

### § 298.58. Offsite shipments of waste oil.

A waste oil processor/rerefiner who initiates shipments of waste oil offsite shall ship the waste oil using a waste oil transporter who has obtained an identification number.

### § 298.59. Management of waste.

An owner or operator of waste oil processing/rerefining facilities who generates waste from the storage, waste oil processing or rerefining of waste oil shall manage the wastes from its operations as specified in § 298.10(e) (relating to materials derived from waste oil).

## Subchapter G. WASTE OIL BURNERS WHO BURN OFF-SPECIFICATION WASTE OIL FOR ENERGY RECOVERY

Sec.

298.60. Applicability.
298.61. Restrictions on burning.
298.62. Notification.
298.63. Rebuttable presumption for waste oil.
298.64. Waste oil storage.
298.65. Tracking.
298.66. Notices.
298.67. Management of waste.

**Cross References**

This subchapter cited in 25 Pa. Code § 298.20 (relating to applicability); 25 Pa. Code § 298.40 (relating to applicability); 25 Pa. Code § 298.50 (relating to applicability); and 25 Pa. Code § 298.70 (relating to applicability).

### § 298.60. Applicability.

(a) *General*. This subchapter applies to waste oil burners except as specified in paragraphs (1) and (2). A waste oil burner is a facility where waste oil not meeting the specification requirements in § 298.11 (relating to waste oil specifi-



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cations) is burned for energy recovery in devices identified in § 298.61(a) (relating to restrictions on burning). A waste oil burner who complies with this subchapter is deemed to have a solid waste permit for the burning of that waste oil. The Department may require a waste oil burner subject to permit-by-rule to apply for, and obtain, an individual or general permit, or take other appropriate action, when the waste oil burner is not in compliance with the requirements for the permit-by-rule or is conducting an activity that harms or presents a threat of harm to the health, safety or welfare of the people or the environment of this Commonwealth. Facilities burning waste oil for energy recovery under one or more of the following conditions are not subject to this subchapter:

(1) The waste oil is burned by the generator in an onsite space heater under the provisions of § 298.23 (relating to onsite burning in space heaters).

(2) The waste oil is burned by a processor/rerefiner for purposes of processing waste oil which is considered burning incidentally to waste oil processing.

(b) *Other applicable provisions*. A waste oil burner who conducts the following activities is also subject to other applicable provisions of this chapter as follows:

(1) A burner who generates waste oil shall also comply with Subchapter C (relating to waste oil generators).

(2) A burner who transports waste oil shall also comply with Subchapter E (relating to waste oil transporters and transfer facilities).

(3) Except as provided in § 298.61(b), a burner who processes or rerefines waste oil shall also comply with Subchapter F (relating to waste oil processing/rerefining facilities).

(4) A burner who directs shipments of off-specification waste oil from its facility to a waste oil burner or first claims that waste oil that is to be burned for energy recovery meets the waste oil fuel specifications in § 298.11 shall also comply with Subchapter H (relating to waste oil fuel marketers).

(5) A burner shall dispose of waste oil in accordance with Article VII or IX (relating to hazardous waste management; and residual waste management).

(c) *Specification fuel*. This subchapter does not apply to a person burning waste oil that meets the waste oil fuel specification of § 298.11, if the burner complies with Subchapter H.

### § 298.61. Restrictions on burning.

(a) Off-specification waste oil fuel may be burned for energy recovery in only the following devices:

(1) An industrial furnace identified in 40 CFR 260.10 (relating to definitions), incorporated by reference in § 260a.1 (relating to incorporation by reference, purpose, scope and applicability).

(2) A boiler, as defined in 40 CFR 260.10, incorporated by reference in § 260a.1 that is identified as follows:

(i) An industrial boiler located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes.

(ii) A utility boiler used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale.

(iii) A waste oil-fired space heater if the burner meets the provisions of § 298.23 (relating to onsite burning in space heaters).

(3) A hazardous waste incinerator subject to 40 CFR Part 264, Subpart O (relating to incinerators), incorporated in § 264a.1 (relating to incorporation by reference, purpose, scope and reference), or 40 CFR Part 265, Subpart O (relating to incinerator), incorporated by reference in § 265a.1 (relating to incorporation by reference, purpose, scope and applicability).

(b) A person burning waste oil in a boiler or industrial furnace specified in paragraph (1) or (2) shall have a plan approval and operating permit issued under Chapter 127 (relating to construction, modification, reactivation and operation of sources) from the Bureau of Air Quality, or written approval from the Bureau of Air Quality if the fuel is burned in Allegheny or Philadelphia counties if Allegheny or Philadelphia county is issued first.

(c) Except as provided in subsection (d), a waste oil burner may not process waste oil unless it also complies with the requirements of Subchapter F (relating to waste oil processing/refining facilities).

(d) A waste oil burner may aggregate off-specification waste oil with virgin oil or on-specification waste oil for purposes of burning, but may not aggregate for purposes of producing on-specification waste oil.

**Cross References**

This section cited in 25 Pa. Code § 298.1 (relating to definitions); 25 Pa. Code § 298.60 (relating to applicability); 25 Pa. Code § 298.66 (relating to notices); 25 Pa. Code § 298.72 (relating to prohibitions); and 25 Pa. Code § 298.75 (relating to notices).

## § 298.62. Notification.

(a) *Identification numbers*. A waste oil burner which has not previously complied with the notification requirements of 40 CFR 264.11 (relating to identification number), incorporated by reference in § 264a.1 (relating to incorporation by reference, purpose, scope and reference), and 40 CFR 265.11 (relating to identification number), incorporated by reference in § 265a.1 (relating to incorporation by reference, purpose, scope and applicability), shall comply with these requirements and obtain an EPA identification number.

(b) *Mechanics of notification*. A waste oil burner who has not received an identification number may obtain one by notifying the regional administrator of their waste oil activity by submitting one of the following:



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(1) A completed EPA form 8700-12 (to obtain EPA form 8700-12 call RCRA/Superfund hotline at (800) 424-9346 or (703) 920-9810).

(2) A letter requesting an identification number. A burner may call the RCRA/Superfund hotline to determine where to send a letter requesting an identification number. The letter should include the following information:

(i) The burner company name.

(ii) The owner of the burner company.

(iii) The mailing address for the burner.

(iv) The name and telephone number for the burner point of contact.

(v) The type of waste oil activity.

(vi) The location of the burner facility.

**§ 298.63. Rebuttable presumption for waste oil.**

(a) To ensure that waste oil managed at a waste oil burner facility is not hazardous waste under the rebuttable presumption of § 298.10(b)(1)(ii) (relating to applicability), a waste oil burner shall determine whether the total halogen content of waste oil managed at the facility is above or below 1,000 parts per million.

(b) The waste oil burner shall determine if the waste oil contains above or below 1,000 parts per million total halogens by one of the following:

(1) Testing the waste oil.

(2) Applying knowledge of the halogen content of the waste oil in light of the materials or processes used.

(3) If the waste oil has been received from a processor/rerefiner subject to regulation under Subchapter F (relating to waste oil processing/rerefining facilities), using information provided by the processor/rerefiner.

(c) Waste oil containing more than 1,000 parts per million total halogens, is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed under 40 CFR Part 261, Subpart D (relating to lists of hazardous waste), incorporated by reference in § 261a.1 (relating to incorporation by reference, purpose and scope). A person may rebut this presumption by demonstrating that the waste oil does not contain hazardous waste. For example, by using an analytical method from the current edition of SW-846 to show that the waste oil does not contain significant concentrations of halogenated hazardous constituents identified in 40 CFR Part 261, Appendix VIII (relating to hazardous constituents), incorporated by reference in § 261a.1. EPA publication SW-846, current edition, is available from the Government Printing Office, Superintendent of Documents, Post Office Box 371954, Pittsburgh, Pennsylvania 15250-7954, (202) 512-1800 (Document number 955-001-00000-1). Another way of rebutting this presumption is to demonstrate that the halogenated constituents are from wastes generated by households and, therefore, under 40 CFR 261.4(b)(1) (relating to exclusions), incorporated by reference in § 261a.1 are excluded from regulation as hazardous waste.

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 298.24(c) (relating to offsite shipments), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if the oils/fluids are recycled in any other manner, or disposed.

(2) The rebuttable presumption does not apply to waste oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units if the CFCs are destined for reclamation. The rebuttable presumption does apply to waste oils contaminated with CFCs that have been mixed with waste oil from sources other than refrigeration units.

(d) *Record retention*. Records of analyses conducted or information used to comply with subsections (a)—(c) shall be maintained by the burner for at least 3 years.

## § 298.64. Waste oil storage.

(a) *Storage units*. A waste oil burner may not store waste oil in units other than tanks, containers or units subject to regulation under Chapter 264a or 265a (relating to owners and operators of hazardous waste treatment, storage and disposal facilities; and interim status standards for owners and operators of hazardous waste treatment, storage and disposal facilities).

(b) *Condition of units*. Containers and aboveground storage tanks used to store oil at burner facilities shall meet the following conditions:

(1) *Be in good condition*. For example, containers and aboveground storage tanks shall not exhibit severe rusting, apparent structural defects or deterioration.

(2) *Not leaking (no visible leaks)*.

(c) *Secondary containment for containers*. A container used to store waste oil at burner facilities shall be equipped with a secondary containment system.

(1) The secondary containment system shall consist of one of the following:

(i) Dikes, berms or retaining walls and a floor. The floor shall cover the entire area within the dike, berm or retaining wall.

(ii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, shall be sufficiently impervious to the migration of waste oil to prevent waste oil released into the containment system from migrating out of the system to the soil, groundwater or surface water.

(d) *Additional requirements for containers*. The total container height of a group of containers may not exceed 9 feet. The maximum width and depth of a group of containers shall provide a configuration and aisle space which ensures access for purposes of inspection, containment and remedial action with emergency vehicles and equipment.



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(e) *Additional requirements for storage tanks*. Storage tanks used to store waste oil shall be designed and operated in accordance with § 299.122(b) (relating to storage tanks). For existing aboveground storage tanks, an alternative design to secondary containment may be demonstrated where the tank meets the ground.

(f) *Labels*.

(1) Except as provided in paragraph (2), a container or aboveground tank used to store waste oil at burner facilities shall be labeled or marked clearly with the words "waste oil" by no later than December 2, 2001.

(2) Containers or aboveground storage tanks which are labeled or marked with the words "used oil" on June 2, 2001, shall be labeled or marked with the words "waste oil" by no later than June 2, 2003.

(3) Fill pipes used to transfer waste oil into underground storage tanks at burner facilities shall be labeled or marked clearly with the words "waste oil" by no later than December 2, 2001. Fill pipes which are labeled or marked with the words "used oil" on June 2, 2001, shall be labeled or marked with the words "waste oil" by no later than June 2, 2003.

(g) *Response to releases*. Upon detection of a release of waste oil to the environment not subject to Chapter 245, Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties) which has occurred after June 2, 2001, a burner shall perform the following cleanup steps:

(1) Stop the release.

(2) Contain the released waste oil.

(3) Clean up and properly manage the released waste oil and other materials.

(4) Repair or replace any leaking waste oil storage containers or tanks prior to returning them to service, if necessary.

(h) In addition to the requirements of this subchapter, a waste oil burner shall maintain, in a readily accessible place at the facility, a copy of a preparedness, prevention and contingency (PPC) plan that is consistent with the Department's most recent guidelines for development and implementation of PPC plans. Waste oil burners are subject to all applicable spill prevention, control and countermeasures (40 CFR Part 112 (relating to oil pollution prevention)) in addition to the requirements of this subchapter. A waste oil burner is also subject to the underground storage tank standards for waste oil stored in underground storage tanks in Chapter 245 (relating to administration of the storage tank and spill prevention program) whether or not the waste oil exhibits any characteristics of hazardous waste.

## § 298.65. Tracking.

(a) *Acceptance*. A waste oil burner shall keep a record of each waste oil shipment accepted for burning. These records may take the form of a log, invoice,

manifest, bill of lading or other shipping documents. Records for each shipment shall include the following information:

(1) The name and address of the transporter who delivered the waste oil to the burner.

(2) The name and address of the generator, transfer facility or processor/rerefiner from whom the waste oil was sent to the burner.

(3) The identification number of the transporter who delivered the waste oil to the burner.

(4) The identification number (if applicable) of the generator, transfer facility or processor/rerefiner from whom the waste oil was sent to the burner.

(5) The quantity of waste oil accepted.

(6) The date of acceptance.

(b) *Record retention*. The records described in subsection (a) shall be maintained for at least 3 years.

### § 298.66. Notices.

(a) *Certification*. Before a burner accepts the first shipment of off-specification waste oil fuel from a generator, transporter, transfer facility or processor/rerefiner, the burner shall provide to the generator, transporter, transfer facility or processor/rerefiner a one-time written and signed notice certifying the following:

(1) The burner has notified EPA stating the location and general description of its waste oil management activities.

(2) The burner will burn the waste oil only in an industrial furnace or boiler identified in § 298.61(a) (relating to restrictions on burning).

(b) *Certification retention*. The certification described in subsection (a) shall be maintained for 3 years from the date the burner last receives shipment of off-specification waste oil from that generator, transporter, transfer facility or processor/rerefiner.

### § 298.67. Management of waste.

A burner who generates waste from the storage or burning of waste oil shall manage the waste as specified in § 298.10(e) (relating to applicability).

## Subchapter H. WASTE OIL FUEL MARKETERS

Sec.
298.70. Applicability.
298.71. Prohibitions.
298.72. On-specification waste oil fuel.
298.73. Notification.
298.74. Tracking.
298.75. Notices.



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**Cross References**

This subchapter cited in 25 Pa. Code § 298.20 (relating to applicability); 25 Pa. Code § 298.40 (relating to applicability); 25 Pa. Code § 298.50 (relating to applicability); and 25 Pa. Code § 298.60 (relating to applicability).

## § 298.70. Applicability.

(a) A person who conducts one of the following activities is subject to the requirements of this subchapter:

(1) Directs a shipment of off-specification waste oil from its facility to a waste oil burner.

(2) First claims that waste oil that is to be burned for energy recovery meets the waste oil fuel specifications in § 298.11 (relating to waste oil specifications).

(b) The following persons are not marketers subject to this subchapter:

(1) Waste oil generators, waste oil transporters and waste oil transfer facilities who transport waste oil received only from waste oil generators, unless the waste oil generator, waste oil transporter or waste oil transfer facility directs a shipment of off-specification waste oil from its facility to a waste oil burner. However, waste oil processors/rerefiners who burn some waste oil fuel for purposes of waste oil processing are considered to be burning incidentally to waste oil processing. Thus, waste oil generators, waste oil transporters and waste oil transfer facilities who direct shipments of off-specification waste oil to waste oil processors/rerefiners who incidentally burn waste oil are not marketers subject to this subchapter.

(2) Persons who direct shipments of on-specification waste oil and who are not the first person to claim the oil meets the waste oil fuel specifications of § 298.11.

(c) Any person subject to the requirements of this subchapter shall also comply with one of the following:

(1) Subchapter C (relating to waste oil generators).

(2) Subchapter E (relating to waste oil transporters and transfer facilities).

(3) Subchapter F (relating to waste oil processing/rerefining facilities).

(4) Subchapter G (relating to waste oil burners who burn off-specification waste oil for energy recovery).

## § 298.71. Prohibitions.

A waste oil fuel marketer may initiate a shipment of off-specification waste oil only to a waste oil burner which:

(1) Has an identification number.

(2) Burns the waste oil in an industrial furnace or boiler identified in § 298.61(a) (relating to restrictions on burning).

## § 298.72. On-specification waste oil fuel.

(a) *Analysis of waste oil fuel*. A waste oil generator, waste oil transporter, waste oil transfer facility, waste oil processor/rerefiner or waste oil burner may determine that waste oil that is to be burned for energy recovery meets the fuel specifications of § 298.11 (relating to waste oil specifications) by performing analyses or obtaining copies of analyses or other information documenting that the waste oil fuel meets the specifications.

(b) *Record retention*. A waste oil generator, waste oil transporter, waste oil transfer facility, waste oil processor/rerefiner or waste oil burner who first claims that waste oil that is to be burned for energy recovery meets the specifications for waste oil fuel under § 298.11 shall keep copies of analyses of the waste oil (or other information used to make the determination) for 3 years.

**Cross References**

This section cited in 25 Pa. Code § 298.11 (relating to waste oil specifications); 25 Pa. Code § 298.55 (relating to analysis plan); and 25 Pa. Code § 298.74 (relating to tracking).

## § 298.73. Notification.

(a) *Identification numbers*. A waste oil fuel marketer subject to this subchapter who has not previously obtained an identification number shall comply with these requirements and obtain an EPA identification number.

(b) A marketer who has not received an identification number may obtain one by notifying the EPA Regional Administrator of its waste oil activity by submitting one of the following:

(1) A completed EPA form 8700-12.

(2) A letter requesting an identification number. The letter shall include the following information:

(i) The marketer company name.

(ii) The owner of the marketer.

(iii) The mailing address for the marketer.

(iv) The name and telephone number for the marketer point of contact.

(v) The type of waste oil activity (for example, generator directing shipments of off-specification waste oil to a burner).

**Cross References**

This section cited in 25 Pa. Code § 298.11 (relating to waste oil specifications).

## § 298.74. Tracking.

(a) *Off-specification waste oil delivery*. A waste oil marketer who directs a shipment of off-specification waste oil to a burner must keep a record of each shipment of waste oil to a burner. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment shall include the following information:



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(1) The name and address of the transporter who delivers the waste oil to the burner.

(2) The name and address of the burner who will receive the waste oil.

(3) The identification number of the transporter who delivers the waste oil to the burner.

(4) The identification number of the burner.

(5) The quantity of waste oil shipped.

(6) The date of shipment.

(b) *On-specification waste oil delivery*. A generator, transporter, transfer facility, processor/rerefiner or burner who first claims that waste oil that is to be burned for energy recovery meets the fuel specifications under § 298.11 (relating to waste oil specifications) shall keep a record of each shipment of waste oil to the facility to which it delivers the waste oil. Records for each shipment shall include the following information:

(1) The name and address of the facility receiving the shipment.

(2) The quantity of waste oil fuel delivered.

(3) The date of shipment or delivery.

(4) A cross reference to the record of waste oil analysis or other information used to make the determination that the oil meets the specification as required under § 298.72(a) (relating to on-specification waste oil fuel).

(c) *Record retention*. The records described in subsections (a) and (b) shall be maintained for at least 3 years.

**Cross References**

This section cited in § 298.11 (relating to waste oil specifications).

## § 298.75. Notices.

(a) *Certification*. Before a waste oil generator, transporter, transfer facility or processor/rerefiner directs the first shipment of off-specification waste oil fuel to a burner, it shall obtain a one-time written and signed notice from the burner certifying the following:

(1) That the burner has notified EPA stating the location and general description of waste oil management activities.

(2) That the burner will burn the off-specification waste oil only in an industrial furnace or boiler identified in § 298.61(a) (relating to restrictions on burning).

(b) *Certification retention*. The certification described in subsection (a) shall be maintained for 3 years from the date the last shipment of off-specification waste oil is shipped to the burner.

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## CHAPTER 303. PREPARATION OF HAZARDOUS SUBSTANCE AND ENVIRONMENTAL HAZARD SURVEY FORMS

Sec.
303.1. Hazardous Substance Survey Forms.
303.2. Environmental Hazard Survey Forms.
303.3. [Reserved].
303.4. [Reserved].
303.5. [Reserved].
303.6. [Reserved].

**Cross References**

This chapter cited in 34 Pa. Code § 311.2 (relating to workplace postings).

### § 303.1. Hazardous Substance Survey Forms.

(a) The Hazardous Substance Survey Form shall contain the following information:

(1) The names of hazardous substances present in the workplace as they appear in Appendix A.

(2) The Chemical Abstracts Service (CAS) number, if a number has been assigned.

(3) The employer name, address and Federal Employer Identification Number (FEIN).

(4) The workplace name.

(5) The time period covered by the survey.

(6) The date the Hazardous Substance Survey Form was completed.

(7) An indication as to whether a substance is a special hazardous substance or an environmental hazard.

(8) The name, title and signature of the employer or employer representative completing the Hazardous Substance Survey Form.

(9) The name and telephone number of a contact person who can provide additional information.

(b) The initial Hazardous Substance Survey Form for a workplace shall be completed on a form supplied by the Department no later than December 1, 1986.

(c) The Hazardous Substance Survey Form may constitute the lists of substances required to be posted under section 7(a)(1) of the act (35 P. S. § 7307(a)(1)) and § 311.2(a)(1)—(3) (relating to workplace postings). If the workplace and work area are identical, the completed Hazardous Substance Survey Form may constitute the work area list required to be made available under section 7(a)(1) of act and § 305.4 (relating to maintenance and disclosure of work area lists).

(d) The Hazardous Substance Survey Form shall be updated at least annually, based on the most current Hazardous Substance List, Environmental Hazard List



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and Special Hazardous Substance List published by the Department under section 3 of the act (35 P. S. § 7303) and this chapter.

(e) Updated Hazardous Substance Survey Forms shall be completed no later than April 1 of each year and shall include hazardous substances which were present in the workplace during the prior calendar year. To the extent this form is also used to meet the requirements of § 305.4 it shall be updated when necessary.

(f) In meeting the requirements of this section, employers may either use forms provided by the Department or develop their own form which contains information required in this section and is legible and understandable.

**Cross References**

This section cited in 34 Pa. Code § 301.3 (relating to jurisdiction/exemption); and 34 Pa. Code § 305.2 (relating to maintenance and disclosure of Hazardous Substance Survey Forms).

## § 303.2. Environmental Hazard Survey Forms.

(a) An employer is required to complete an Environmental Hazard Survey Form for a particular workplace upon a written request from the Department and on a form supplied by the Department when requested to do so by the Department. The Department will require an employer to complete an Environmental Hazard Survey Form if the Department is requested to do so by a person in this Commonwealth. The Environmental Hazard Survey Form shall be completed and returned to the Department within 30 days of a request by the Department.

(b) The Environmental Hazard Survey Form shall contain information regarding those hazardous substances designated as environmental hazards on the Department's Hazardous Substance Lists which are emitted, discharged or disposed of from that workplace. The information required to be included on the Environmental Hazard Survey Form includes the following:

(1) The total known or estimated stack or point-source emissions of the substance.

(2) The total estimated fugitive or nonpoint-source emissions of the substance.

(3) The total known or estimated discharge of the substance into the surface or groundwater, the treatment methods and the known or estimated raw wastewater volume and loadings.

(4) The total known or estimated discharge of the substance into publicly-owned treatment works.

(5) The known or estimated quantity and methods of disposal of wastes containing the substance, the method of onsite storage of the wastes, the location of the final disposal sites for the wastes and the identity of the hauler of the wastes.

(c) The information specified in subsection (b) shall only be included on the Environmental Hazard Survey Form if the information is, at the time the Envi-



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ronmental Hazard Survey Form is completed, required to be reported under current provisions of a Federal, State, county or municipal environmental statute.

(d) Employers have two options for completing the Environmental Hazard Survey Form:

(1) Employers may complete the Environmental Hazard Survey Form as provided by the Department.

(2) The employer shall be deemed to have completed the Environmental Hazard Survey Form if the employer attaches to the form provided by the Department, the employer's list of environmental hazards emitted, discharged or disposed of from the workplace and reports, or portions thereof, required by current provisions of Federal, State, county or municipal statutes which contain the information specified in subsection (b).

(e) Employers are required to update Environmental Hazard Survey Forms only upon request of the Department.

(f) Employers shall keep a copy of the Environmental Hazard Survey Form on file at that workplace and at its principal place of business in this Commonwealth.

(g) Procedures for disclosure of Environmental Hazard Survey Forms are governed by Chapter 305 (relating to maintenance and disclosure of survey forms and lists).

(h) The Department will not require the completion or revision of an Environmental Hazard Survey Form more than once in a 12-month period.

**Cross References**

This section cited in 34 Pa. Code § 301.3 (relating to jurisdiction/exemptions); and 34 Pa. Code § 305.2 (relating to maintenance and disclosure of Hazardous Substances Survey Forms).

## § 303.3. [Reserved].

## § 303.4. [Reserved].

## § 303.5. [Reserved].

## § 303.6. [Reserved].

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## CHAPTER 311. POSTING OF NOTICES AND OTHER INFORMATION

Sec.
311.1. Purpose and scope.
311.2. Workplace postings.
311.3. Outdoor or temporary worksites.

**Cross References**

This chapter cited in 34 Pa. Code § 301.3 (relating to jurisdiction/exemptions).

### § 311.1. Purpose and scope.

This chapter implements the posting requirements under section 7 of the act (35 P. S. § 7307), and governs the requirements for the posting of notices in the workplace and in outdoor and temporary worksites.

### § 311.2. Workplace postings.

(a) A nonmanufacturing employer shall prominently post the following in locations where notices to employes are normally posted:

(1) Lists of hazardous substances found in the workplace.

(2) Lists of special hazardous substances found in the workplace.

(3) Lists of environmental hazards which are emitted, discharged or disposed of from the workplace.

(4) Notification to employes and their representatives of their rights under the act.

(5) A notice containing this information will be provided by the Department.

(b) To the extent lists of substances are consolidated under Chapters 303 and 305 (relating to preparation of Hazardous Substance and Environmental Hazard Survey Forms and maintenance and disclosure of Survey Forms and Lists), a single notice of consolidated lists is acceptable for purposes of subsection (a)(1)—(3).

(c) A nonmanufacturing employer shall update the lists as necessary, but at least annually.

**Cross References**

This section cited in 34 Pa. Code § 303.1 (relating to Hazardous Substance Survey Forms).

### § 311.3. Outdoor or temporary worksites.

In the case of an outdoor or temporary worksite which is not contiguous to a building regularly used by a nonmanufacturing employer as a workplace, postings of notices, as well as MSDSs and other materials shall be in a location where employes, during a course of a normal day, have access which does not depend on the permission or intervention of management or a supervisor.

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## CHAPTER 323. HAZARDOUS SUBSTANCE LIST

Sec.
323.1. General.
323.2. Special hazardous substances.
323.3. Environmental hazards.
323.4. Additions and deletions to the Hazardous Substance List.
323.5. Automatic additions to Hazardous Substance List.
323.6. On-site testing of environmental hazards.

### § 323.1. General.

Under section 3 of the act (35 P. S. § 7303), the Department adopts a Hazardous Substance List as set forth in Appendix A.

### § 323.2. Special hazardous substances.

(a) Hazardous substances which are considered special hazardous substances because their particular toxicity, tumorigenicity, mutagenicity, reproductive toxicity, flammability, explosivity, corrosivity or reactivity pose a special hazard to health and safety. Only substances on the Hazardous Substance List in Appendix A which have the letter ''S'' are part of the Special Hazardous Substance List.

(b) The Department will evaluate the appropriateness of designing hazardous substances as special hazardous substances based on the following criteria:

(1) The substance shall be one which is on the Department's Hazardous Substance List.

(2) The hazardous substance when present at concentrations of less than 1.0%, but greater than .01%, shall pose a special hazard to health and safety due to its toxicity, tumorigenicity, mutagenicity, reproductive toxicity, flammability, explosiveness, corrosivity or reactivity.

(3) Reliable, current and accurate scientific evidence shall demonstrate the elements of paragraph (2).

(c) A person may submit relevant scientific information to assist the Department in making its determination.

### § 323.3. Environmental hazards.

(a) Hazardous substances which are considered environmental hazards because of their particular or extreme properties pose a danger if released into the environment are contained in an Environmental Hazard List. Only substances on the Hazardous Substance List in Appendix A which have the letter ''E'' are part of the Environmental Hazard List.

(b) The Department will evaluate the appropriateness of designating hazardous substances as environmental hazards based on the following criteria:

(1) The substance shall be one which is on the Department's Hazardous Substance List.

(2) The substance shall be regulated under Federal, State, county or municipal environmental statutes.

(3) The substance shall pose a danger if released into the environment in that it shall be considered toxic, hazardous or it shall be a contaminant subject to Statewide standards for emissions or discharges under current environmental statutes regulating the substance.

## § 323.4. Additions and deletions to the Hazardous Substance List.

Except as provided by § 323.5 (relating to automatic additions to Hazardous Substance List), the Department will add or delete substances from the list contained in Appendix A only following public notice, hearings and publication of a rulemaking under the act of July 31, 1968 (P. L. 769, No. 240) (45 P. S. §§ 1102, 1201—1208 and 1602) and 45 Pa.C.S. Part II (relating to publication and effectiveness of Commonwealth documents).

**Cross References**

This section cited in 34 Pa. Code § 323.5 (relating to automatic additions to Hazardous Substance List).

## § 323.5. Automatic additions to Hazardous Substance List.

(a) Chemicals not listed in Appendix A which appear in future compilations or issues of the following lists will automatically be added to the Hazardous Substance List in Appendix A upon publication of a notice of the automatic additions in the *Pennsylvania Bulletin*.

(1) Federal Environmental Protection Agency (EPA) list of toxic pollutants and hazardous substances prepared under sections 307 and 311 of the Federal Clean Water Act of 1977 (33 U.S.C.A. §§ 1317 and 1321).

(2) EPA list of hazardous air pollutants prepared under section 112 of the Federal Clean Air Act (42 U.S.C.A. § 7412).

(3) EPA list of restricted use of pesticides found at 40 CFR 162.30 (relating to optional procedures for classification of pesticide uses by regulation).

(4) EPA Carcinogen Assessment Group's List of Carcinogens.

(5) OSHA list of toxic and hazardous substances found in 29 CFR Part 1910, Subpart Z (relating to toxic and hazardous substances).

(6) International Agency for Research on Cancer sublist, entitled ''Sufficient Evidence of Carcinogenicity in Animals.''

(7) National Toxicology Program's list of substances published in their latest Annual Report on Carcinogens.

(8) National Fire Protection Association list found in ''Hazardous Chemicals Data (NFPA 49).''

(9) National Fire Protection Association list found in ''Fire Hazard Properties of Flammable Liquids, Gases, Volatile Solids (NFPA 325M),'' but only



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substances found on sublists for health items, categories 2, 3 and 4; sublist for reactivity items, categories 3 and 4; and sublists for flammability, categories 3 and 4.

(10) American Conference of Governmental Hygienists list found in ''Threshold Limit Value for Chemical Substances and Physical Agents in the Workplace.''

(11) National Cancer Institute sublist, entitled ''Carcinogens Bioassays with at Least Evidence Suggestive of Carcinogenic Effect,'' but including only substances which satisfy criteria of the National Toxicology Program indicating significant carcinogenic effect.

(b) The Department will annually submit to the Legislative Reference Bureau for recommended publication as a notice in the *Pennsylvania Bulletin* a recompilation of Appendix A, containing additions and deletions made under § 323.4 (relating to additions and deletions to the Hazardous Substance List) and this section.

**Cross References**

This section cited in 34 Pa. Code § 323.4 (relating to additions and deletions to the Hazardous Substance List).

## § 323.6. Onsite testing of environmental hazards.

(a) The Department may conduct, at its own expense and for good cause shown, on-site testing for environmental hazards or use other methods that will provide more exact information concerning the environmental hazards reported in the Environmental Hazard Survey under section 3(g) of the act (35 P. S. § 7303(g)). The action will be considered by the Department upon receipt of a written request which contains the following information:

(1) The name and address of the requesting party.

(2) A reasonable description or name of substances requested to be tested.

(3) The specific reasons why the requested testing is desired.

(4) The name, address and location of the company and workplace or work area where the testing is requested to be conducted.

(5) The efforts made to obtain the information sought through the testing.

(6) Additional information the Department considers pertinent to the request.

(b) Interested parties for purposes of consultation with respect to a request for on-site testing include the following:

(1) The employer responsible for completing the Environmental Hazard Survey for the workplace for which testing is required.

(2) The party requesting the on-site testing.

(3) Other parties that the Department may consider, in its discretion, to have an appropriate interest in the testing request.

(c) The workplace employer or site owner may conduct on-site testing instead of the Department. Upon the written request of the owner or employer, the Department will detail, in writing, the type and methods of testing and provide technical assistance to aid the owner or employer which chooses to conduct testing instead of the Department.

(d) In an emergency, the Department may undertake testing at the Commonwealth's expense. The Department, at its discretion, will determine situations which constitute emergencies for purposes of this section.

(e) The Department may not conduct on-site testing which has already been conducted by the OSHA, the Department of Environmental Resources or the Mine Safety Health Administration.

**Cross References**

This section cited in 34 Pa. Code § 301.3 (relating to jurisdiction/exemptions).



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## APPENDIX A—HAZARDOUS SUBSTANCE LISTS

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 57-50-1 | .ALPHA.-D-GLUCOPYRANOSIDE, .BETA.-D-FRUCTOFURANOSYL |
| ES | 14901-08-7 | .BETA.-D-GLUCOPYRANOSIDE, (METHYL-ONN-AZOXY)METHYL |
| | 90-41-5 | [1,1′-BIPHENYL]-2-AMINE |
| ES | 92-67-1 | [1,1′-BIPHENYL]-4-AMINE |
| | 92-04-6 | [1,1′-BIPHENYL]-4-OL, 3-CHLORO- |
| ES | 92-87-5 | [1,1′-BIPHENYL]-4,4′-DIAMINE |
| ES | 91-94-1 | [1,1′-BIPHENYL]-4,4′-DIAMINE, 3,3′-DICHLORO- |
| ES | 119-90-4 | [1,1′-BIPHENYL]-4,4′-DIAMINE, 3,3′-DIMETHOXY- |
| ES | 119-93-7 | [1,1′-BIPHENYL]-4,4′-DIAMINE, 3,3′-DIMETHYL- |
| | 83-79-4 | [1]BENZOPYRANO[3,4-B]FURO[2,3-H][1]BENZOPYRAN-6(6AH)-ONE, 1,2,12,12A-TETRAHYDRO-8,9-DIMETHOXY-2-(1-METHYLETHENYL)-, [2R-(2.ALPHA.,6A.ALPHA.,12A.ALHA.)]- |
| E | 208-96-8 | ACENAPHTHYLENE |
| E | 83-32-9 | ACENAPHTHYLENE, 1,2-DIHYDRO- |
| S | 602-87-9 | ACENAPHTHYLENE, 1,2-DIHYDRO-5-NITRO- |
| E | 75-07-0 | ACETALDEHYDE |
| E | 107-20-0 | ACETALDEHYDE, CHLORO- |
| | 9002-91-9 | ACETALDEHYDE, HOMOPOLYMER |
| E | 75-87-6 | ACETALDEHYDE, TRICHLORO- |
| E | 60-35-5 | ACETAMIDE |
| E | 591-08-2 | ACETAMIDE, N-(AMINOTHIOXOMETHYL)- |
| ES | 62-44-2 | ACETAMIDE, N-(4-ETHOXYPHENYL)- |
| | 103-89-9 | ACETAMIDE, N-(4-METHYLPHENYL)- |
| S | 531-82-8 | ACETAMIDE, N-[4-(5-NITRO-2-FURANYL)-2-THIAZOLYL]- |
| | 1119-49-9 | ACETAMIDE, N-BUTYL- |
| | 91-49-6 | ACETAMIDE, N-BUTYL-N-PHENYL- |
| | 103-84-4 | ACETAMIDE, N-PHENYL- |
| | 28314-03-6 | ACETAMIDE, N-9H-FLUOREN-1-YL- |
| ES | 53-96-3 | ACETAMIDE, N-9H-FLUOREN-2-YL- |
| | 127-19-5 | ACETAMIDE, N,N-DIMETHYL- |
| S | 613-35-4 | ACETAMIDE, N,N′-[1,1′-BIPHENYL]-4,4′-DIYLBIS- |
| E | 640-19-7 | ACETAMIDE, 2-FLUORO- |
| S | 56-75-7 | ACETAMIDE, 2,2-DICHLORO-N-[2-HYDROXY-1-(HYDROXYMETHYL)-2-(4-NITROPHENYL)ETHYL]-, [R-(R*,R*)]- |
| E | 64-19-7 | ACETIC ACID |
| E | 108-05-4 | ACETIC ACID ETHENYL ESTER |
| E | 141-78-6 | ACETIC ACID ETHYL ESTER |
| E | 94-75-7 | ACETIC ACID, (2,4-DICHLOROPHENOXY)- |
| E | 94-80-4 | ACETIC ACID, (2,4-DICHLOROPHENOXY)-, BUTYL ESTER |
| E | 25168-26-7 | ACETIC ACID, (2,4-DICHLOROPHENOXY)-, ISOOCTYL ESTER |
| E | 1928-38-7 | ACETIC ACID, (2,4-DICHLOROPHENOXY)-, METHYL ESTER |
| E | 1928-61-6 | ACETIC ACID, (2,4-DICHLOROPHENOXY)-, PROPYL ESTER |
| E | 94-11-1 | ACETIC ACID, (2,4-DICHLOROPHENOXY)-, 1-METHYLETHYL ESTER |
| E | 94-79-1 | ACETIC ACID, (2,4-DICHLOROPHENOXY)-, 1-METHYLPROPYL ESTER |
| E | 1929-73-3 | ACETIC ACID, (2,4-DICHLOROPHENOXY)-, 2-BUTOXYETHYL ESTER |
| E | 1320-18-9 | ACETIC ACID, (2,4-DICHLOROPHENOXY)-, 2-BUTOXYMETHYLETHYL ESTER |
| E | 2971-38-2 | ACETIC ACID, (2,4-DICHLOROPHENOXY)-, 4-CHLORO-2-BUTENYLESTER |
| E | 93-76-5 | ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)- |
| E | 93-79-8 | ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, BUTYL ESTER |
| E | 6369-97-7 | ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, COMPD. WITH N-METHYLMETHANAMINE (1:1) |
| E | 6369-96-6 | ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, COMPD. WITH N,N-DIMETHYLMETHANAMINE (1:1) |
| E | 1319-72-8 | ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, COMPD. WITH 1-AMINO-2-PROPANOL (1:1) |
| E | 3813-14-7 | ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, COMPD. WITH 2,2′,2″-NITRILOTRIS[ETHANOL] (1:1) |
| E | 13560-99-1 | ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, SODIUM SALT |
| E | 2545-59-7 | ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, 2-BUTOXYETHYL ESTER |
| E | 631-61-8 | ACETIC ACID, AMMONIUM SALT |

***—ANY COMPOUND OF THIS SUBSTANCE IS ALSO AN ENVIRONMENTAL HAZARD**
**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| E | 108-24-7 | ACETIC ACID, ANHYDRIDE |
| E | 123-86-4 | ACETIC ACID, BUTYL ESTER |
| E | 543-90-8 | ACETIC ACID, CADMIUM SALT |
| E | 79-11-8 | ACETIC ACID, CHLORO- |
| | 105-39-5 | ACETIC ACID, CHLORO-, ETHYL ESTER |
| | 96-34-4 | ACETIC ACID, CHLORO-, METHYL ESTER |
| E | 1066-30-4 | ACETIC ACID, CHROMIUM(3+) SALT |
| E | 142-71-2 | ACETIC ACID, COPPER(2+) SALT |
| | 372-09-8 | ACETIC ACID, CYANO- |
| | 105-56-6 | ACETIC ACID, CYANO-, ETHYL ESTER |
| E | 62-74-8 | ACETIC ACID, FLUORO-, SODIUM SALT |
| ES | 301-04-2 | ACETIC ACID, LEAD(2+) SALT |
| | 68-11-1 | ACETIC ACID, MERCAPTO- |
| | 123-81-9 | ACETIC ACID, MERCAPTO-, 1,2-ETHANEDIYL ESTER |
| | 79-20-9 | ACETIC ACID, METHYL ESTER |
| | 112-14-1 | ACETIC ACID, OCTYL ESTER |
| E | 628-63-7 | ACETIC ACID, PENTYL ESTER |
| | 109-60-4 | ACETIC ACID, PROPYL ESTER |
| E | 53496-15-4 | ACETIC ACID, SEC-PENTYL ESTER |
| E | 563-68-8 | ACETIC ACID, THALLIUM(I) SALT |
| | 76-03-9 | ACETIC ACID, TRICHLORO- |
| E | | ACETIC ACID, WATER SOLUTIONS |
| E | 557-34-6 | ACETIC ACID, ZINC SALT |
| | 108-21-4 | ACETIC ACID, 1-METHYLETHYL ESTER |
| E | 105-46-4 | ACETIC ACID, 1-METHYLPROPYL ESTER |
| E | 540-88-5 | ACETIC ACID, 1,1-DIMETHYLETHYL ESTER |
| | 10031-87-5 | ACETIC ACID, 2-ETHYLBUTYL ESTER |
| | 103-09-3 | ACETIC ACID, 2-ETHYLHEXYL ESTER |
| E | 110-19-0 | ACETIC ACID, 2-METHYLPROPYL ESTER |
| | 591-87-7 | ACETIC ACID, 2-PROPENYL ESTER |
| | 93-68-5 | ACETOACET-ORTHO-TOLUIDIDE |
| E | 1752-30-3 | ACETONE THIOSEMICARBAZIDE |
| E | 75-05-8 | ACETONITRILE |
| E | 506-96-7 | ACETYL BROMIDE |
| E | 75-36-5 | ACETYL CHLORIDE |
| | 79-04-9 | ACETYL CHLORIDE, CHLORO- |
| | 79-36-7 | ACETYL CHLORIDE, DICHLORO- |
| E | 814-68-6 | ACRYLYL CHLORIDE |
| S | 50-76-0 | ACTINOMYCIN D |
| S | 51004-61-6 | AF 2 (FOAMING AGENT) |
| ES | 1402-68-2 | AFLATOXINS |
| E | | ALLYL PROPENYL |
| E | 122-09-8 | ALPHA,ALPHA-DIMETHYLPHENETHYLAMINE |
| | | ALPHA,BETA-GLYCERIN DICHLOROHYDRIN |
| | 16853-85-3 | ALUMINATE(1-), TETRAHYDRO-, LITHIUM, (T-4)- |
| E | 7429-90-5 | ALUMINUM |
| | | ALUMINUM ALKYLS |
| | 7446-70-0 | ALUMINUM CHLORIDE (ALCL3) |
| | | ALUMINUM DUST |
| E | 1344-28-1 | ALUMINUM OXIDE (AL2O3) |
| E | 20859-73-8 | ALUMINUM PHOSPHIDE (ALP) |
| S | | ALUMINUM PRODUCTION |
| | | ALUMINUM PYRO POWDERS |
| | | ALUMINUM SOLUBLE SALTS |
| | | ALUMINUM WELDING FUMES |
| | 96-10-6 | ALUMINUM, CHLORODIETHYL- |
| | 563-43-9 | ALUMINUM, DICHLOROETHYL- |
| | 871-27-2 | ALUMINUM, DIETHYLHYDRO- |
| | 1191-15-7 | ALUMINUM, HYDROBIS(2-METHYLPROPYL)- |
| | 2036-15-9 | ALUMINUM, HYDRODIPROPYL- |
| | 12263-85-3 | ALUMINUM, TRIBROMOTRIMETHYLDI- |
| | 1116-70-7 | ALUMINUM, TRIBUTYL- |
| | 12075-68-2 | ALUMINUM, TRICHLOROTRIETHYLDI- |
| | 12542-85-7 | ALUMINUM, TRICHLOROTRIMETHYLDI- |
| | 97-93-8 | ALUMINUM, TRIETHYL- |

***—ANY COMPOUND OF THIS SUBSTANCE IS ALSO AN ENVIRONMENTAL HAZARD**
**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**



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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 75-24-1 | ALUMINUM, TRIMETHYL- |
| | 102-67-0 | ALUMINUM, TRIPROPYL- |
| | 100-99-2 | ALUMINUM, TRIS(2-METHYLPROPYL)- |
| E | 54-62-6 | AMINOPTERIN |
| E | 78-53-5 | AMITON |
| E | 3734-97-2 | AMITON OXALATE |
| E | 7664-41-7 | AMMONIA |
| | 12124-97-9 | AMMONIUM BROMIDE ((NH4)BR) |
| E | 12125-02-9 | AMMONIUM CHLORIDE ((NH4)CL) |
| E | 1341-49-7 | AMMONIUM FLUORIDE ((NH4)(HF2)) |
| E | 12125-01-8 | AMMONIUM FLUORIDE ((NH4)F) |
| E | 1336-21-6 | AMMONIUM HYDROXIDE ((NH4)(OH)) |
| E | 131-74-8 | AMMONIUM PICRATE |
| E | 12135-76-1 | AMMONIUM SULFIDE ((NH4)2S) |
| E | 14307-43-8 | AMMONIUM TARTRATE |
| E | 7803-55-6 | AMMONIUM VANADATE |
| E | 52628-25-8 | AMMONIUM ZINC CHLORIDE |
| E | 300-62-9 | AMPHETAMINE |
| S | | ANALGESIC MIXTURES CONTAINING PHENACETIN |
| | 1317-70-0 | ANATASE (TIO2) |
| S | 58-22-0 | ANDROST-4-EN-3-ONE, 17-HYDROXY-, (17.BETA.)- |
| S | 434-07-1 | ANDROSTAN-3-ONE, 17-HYDROXY-2-(HYDROXYMETHYLENE)-17-METHYL-, (5.ALPHA.,17.BETA.)- |
| E | 88-05-1 | ANILINE,2,4,6-TRIMETHYL- |
| S | | ANTHOPHYLLITE |
| E | 120-12-7 | ANTHRACENE |
| S | | ANTHRACENE OILS (COAL TAR DERIVED PRODUCT) |
| E | 28300-74-5 | ANTIMONATE(2-), BIS[.MU.-[2,3-DIHYDROXYBUTANEDIOATO(4-)-O1,O2:O3,O4]]DI-, DIPOTASSIUM, TRIHYDRATE, STEREOISOMER |
| *E | 7440-36-0 | ANTIMONY |
| E | 7647-18-9 | ANTIMONY CHLORIDE (SBCL5) |
| E | 7783-70-2 | ANTIMONY FLUORIDE (SBF5) |
| E | 1309-64-4 | ANTIMONY OXIDE (SB2O3) |
| E | 1315-04-4 | ANTIMONY SULFIDE (SB2S5) |
| E | 1397-94-0 | ANTIMYCIN A |
| | 7440-37-1 | ARGON |
| E | 88-01-9 | AROCLOR |
| E | 12674-11-2 | AROCLOR 1016 |
| E | 11104-28-2 | AROCLOR 1221 |
| E | 11141-16-5 | AROCLOR 1232 |
| E | 53469-21-9 | AROCLOR 1242 |
| E | 12672-29-6 | AROCLOR 1248 |
| ES | 11097-69-1 | AROCLOR 1254 |
| ES | 11096-82-5 | AROCLOR 1260 |
| *ES | 7440-38-2 | ARSENIC |
| E | 7778-39-4 | ARSENIC ACID |
| E | 1327-52-2 | ARSENIC ACID |
| E | 7778-44-1 | ARSENIC ACID (H3ASO4), CALCIUM SALT (2:3) |
| E | 7645-25-2 | ARSENIC ACID (H3ASO4), LEAD SALT |
| E | 7784-40-9 | ARSENIC ACID (H3ASO4), LEAD(2+) SALT (1:1) |
| E | 10102-48-4 | ARSENIC ACID (H3ASO4), LEAD(4+) SALT (3:2) |
| ES | 7784-41-0 | ARSENIC ACID (H3ASO4), MONOPOTASSIUM SALT |
| ES | 7631-89-2 | ARSENIC ACID (H3ASO4), SODIUM SALT |
| E | 1303-32-8 | ARSENIC DISULFIDE |
| ES | 1327-53-3 | ARSENIC OXIDE (AS2O3) |
| ES | 1303-28-2 | ARSENIC OXIDE (AS2O5) |
| E | 1303-33-9 | ARSENIC SULFIDE (AS2S3) |
| ES | 13464-37-4 | ARSENOUS ACID, TRISODIUM SALT |
| E | 7784-34-1 | ARSENOUS TRICHLORIDE |
| E | 7784-42-1 | ARSINE |
| E | 692-42-2 | ARSINE, DIETHYL- |
| E | 12044-79-0 | ARSINO, THIOXO- |
| E | 52740-16-6 | ARSONIC ACID, CALCIUM SALT (1:1) |
| E | 10124-50-2 | ARSONIC ACID, POTASSIUM SALT |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| ES | 1332-21-4 | ASBESTOS |
| ES | 12172-73-5 | ASBESTOS, GRUNERITE |
| | 8052-42-4 | ASPHALT |
| E | 492-80-8 | AURAMINE |
| S | | AURAMINE MANUFACTURE |
| E | 2642-71-9 | AZINPHOS-ETHYL |
| E | 151-56-4 | AZIRIDINE |
| ES | 52-24-4 | AZIRIDINE, 1,1′,1″-PHOSPHINOTHIOYLIDYNETRIS- |
| ES | 75-55-8 | AZIRIDINE, 2-METHYL- |
| ES | 50-07-7 | 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-(1A.APHA.,8.BETA.,8A.ALPHA.,8B.ALPHA.)]- |
| *E | 7440-39-3 | BARIUM |
| E | 542-62-1 | BARIUM CYANIDE (BA(CN)2) |
| E | 1304-29-6 | BARIUM PEROXIDE (BA(O2)) |
| | 7727-43-7 | BARIUM SULFATE |
| E | 98-09-9 | BENXENESULFONYL CHLORIDE |
| E | 225-51-4 | BENZ(C)ACRIDINE |
| ES | 56-55-3 | BENZ[A]ANTHRACENE |
| ES | 57-97-6 | BENZ[A]ANTHRACENE, 7,12-DIMETHYL- |
| E | 51787-44-1 | BENZ[C]ACRIDINE, 7,8,9,11-TETRAMETHYL- |
| ES | 205-99-2 | BENZ[E]ACEPHENANTHRYLENE |
| ES | 56-49-5 | BENZ[J]ACEANTHRYLENE, 1,2-DIHYDRO-3-METHYL- |
| E | 98-87-3 | BENZAL CHLORIDE |
| | 100-52-7 | BENZALDEHYDE |
| | 135-02-4 | BENZALDEHYDE, 2-METHOXY- |
| | 104-88-1 | BENZALDEHYDE, 4-CHLORO- |
| E | 55-21-0 | BENZAMIDE |
| S | 671-16-9 | BENZAMIDE, N-(1-METHYLETHYL)-4-[(2-METHYLHYDRAZINO)METHYL]- |
| S | 366-70-1 | BENZAMIDE, N-(1-METHYLETHYL)-4-[(2-METHYLHYDRAZINO)METHYL]-, MONOHYDROCHLORIDE |
| | 148-01-6 | BENZAMIDE, 2-METHYL-3,5-DINITRO- |
| E | 23950-58-5 | BENZAMIDE, 3,5-DICHLORO-N-(1,1-DIMETHYL-2-PROPYNYL)- |
| | 1420-04-8 | BENZAMIDE, 5-CHLORO-N-(2-CHLORO-4-NITROPHENYL)-2-HYDROXY-, COMPD. WITH 2-AMINOETHANOL (1:1) |
| E | 62-53-3 | BENZENAMINE |
| | 29191-52-4 | BENZENAMINE, AR-METHOXY- |
| | 1300-73-8 | BENZENAMINE, AR,AR-DIMETHYL- |
| | 142-04-1 | BENZENAMINE, HYDROCHLORIDE |
| | 768-52-5 | BENZENAMINE, N-(1-METHYLETHYL)- |
| | 10137-80-1 | BENZENAMINE, N-(2-ETHYLHEXYL)- |
| | 1126-78-9 | BENZENAMINE, N-BUTYL- |
| | 103-69-5 | BENZENAMINE, N-ETHYL- |
| ES | 135-20-6 | BENZENAMINE, N-HYDROXY-N-NITROSO-, AMMONIUM SALT |
| | 100-61-8 | BENZENAMINE, N-METHYL- |
| | 479-45-8 | BENZENAMINE, N-METHYL-N,2,4,6-TETRANITRO- |
| E | 86-30-6 | BENZENAMINE, N-NITROSO-N-PHENYL- |
| E | 122-39-4 | BENZENAMINE, N-PHENYL- |
| | 613-29-6 | BENZENAMINE, N,N-DIBUTYL- |
| | 91-66-7 | BENZENAMINE, N,N-DIETHYL- |
| E | 121-69-7 | BENZENAMINE, N,N-DIMETHYL- |
| ES | 60-11-7 | BENZENAMINE, N,N-DIMETHYL-4-(PHENYLAZO)- |
| | 603-34-9 | BENZENAMINE, N,N-DIPHENYL- |
| | 94-70-2 | BENZENAMINE, 2-ETHOXY- |
| ES | 90-04-0 | BENZENAMINE, 2-METHOXY- |
| ES | 134-29-2 | BENZENAMINE, 2-METHOXY-, HYDROCHLORIDE |
| ES | 120-71-8 | BENZENAMINE, 2-METHOXY-5-METHYL- |
| ES | 99-59-2 | BENZENAMINE, 2-METHOXY-5-NITRO- |
| ES | 95-53-4 | BENZENAMINE, 2-METHYL- |
| ES | 636-21-5 | BENZENAMINE, 2-METHYL-, HYDROCHLORIDE |
| ES | 97-56-3 | BENZENAMINE, 2-METHYL-4-[(2-METHYLPHENYL)AZO]- |
| E | 99-55-8 | BENZENAMINE, 2-METHYL-5-NITRO- |
| | 87-59-2 | BENZENAMINE, 2,3-DIMETHYL- |
| | 97-02-9 | BENZENAMINE, 2,4-DINITRO- |
| | 102-56-7 | BENZENAMINE, 2,5-DIMETHOXY- |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**



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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| E | 87-62-7 | BENZENAMINE, 2,6-DIMETHYL- |
| E | 98-16-8 | BENZENAMINE, 3-(TRIFLUOROMETHYL)- |
| | 95-76-1 | BENZENAMINE, 3,4-DICHLORO- |
| | 2049-92-5 | BENZENAMINE, 4-(1,1-DIMETHYLPROPYL)- |
| E | 106-47-8 | BENZENAMINE, 4-CHLORO- |
| S | 95-69-2 | BENZENAMINE, 4-CHLORO-2-METHYL- |
| E | 3165-93-3 | BENZENAMINE, 4-CHLORO-2-METHYL-, HYDROCHLORIDE |
| | 156-43-4 | BENZENAMINE, 4-ETHOXY- |
| S | 13410-72-5 | BENZENAMINE, 4-ETHOXY-N-[(5-NITRO-2-FURANYL)METHYLENE]- |
| E | 104-94-9 | BENZENAMINE, 4-METHOXY- |
| | 106-49-0 | BENZENAMINE, 4-METHYL- |
| | 89-62-3 | BENZENAMINE, 4-METHYL-2-NITRO- |
| E | 100-01-6 | BENZENAMINE, 4-NITRO- |
| ES | 156-10-5 | BENZENAMINE, 4-NITROSO-N-PHENYL- |
| ES | 2465-27-2 | BENZENAMINE, 4,4′-CARBONIMIDOYLBIS[N,N-DIMETHYL-, MONOHYDROCHLORIDE |
| E | 101-77-9 | BENZENAMINE, 4,4′-METHYLENEBIS- |
| ES | 101-61-1 | BENZENAMINE, 4,4′-METHYLENEBIS[N,N-DIMETHYL- |
| ES | 101-14-4 | BENZENAMINE, 4,4′-METHYLENEBIS[2-CHLORO- |
| S | 838-88-0 | BENZENAMINE, 4,4′-METHYLENEBIS[2-METHYL- |
| ES | 101-80-4 | BENZENAMINE, 4,4′-OXYBIS- |
| S | 28434-86-8 | BENZENAMINE, 4,4′-OXYBIS[2-CHLORO- |
| ES | 139-65-1 | BENZENAMINE, 4,4′-THIOBIS- |
| ES | 71-43-2 | BENZENE |
| E | 100-44-7 | BENZENE, (CHLOROMETHYL)- |
| | 30030-25-2 | BENZENE, (CHLOROMETHYL)ETHENYL- |
| ES | 98-07-7 | BENZENE, (TRICHLOROMETHYL)- |
| | 98-08-8 | BENZENE, (TRIFLUOROMETHYL)- |
| E | 98-82-8 | BENZENE, (1-METHYLETHYL)- |
| | 135-98-8 | BENZENE, (1-METHYLPROPYL)- |
| | 98-06-6 | BENZENE, (1,1-DIMETHYLETHYL)- |
| | 6607-45-0 | BENZENE, (1,2-DICHLOROETHENYL)- |
| | 538-93-2 | BENZENE, (2-METHYLPROPYL)- |
| | 108-86-1 | BENZENE, BROMO- |
| | 104-51-8 | BENZENE, BUTYL- |
| E | 108-90-7 | BENZENE, CHLORO- |
| | 25567-67-3 | BENZENE, CHLORODINITRO- |
| | 25168-05-2 | BENZENE, CHLOROMETHYL- |
| | 25167-93-5 | BENZENE, CHLORONITRO- |
| | 827-52-1 | BENZENE, CYCLOHEXYL- |
| | 104-72-3 | BENZENE, DECYL- |
| E | 25321-22-6 | BENZENE, DICHLORO- |
| | 1321-74-0 | BENZENE, DIETHENYL- |
| | 1320-21-4 | BENZENE, DIMETHYL(PENTYLOXY)- |
| E | 1330-20-7 | BENZENE, DIMETHYL- |
| E | 25154-54-5 | BENZENE, DINITRO- |
| E | 100-42-5 | BENZENE, ETHENYL- |
| | 1319-73-9 | BENZENE, ETHENYL-, MONOMETHYL DERIV. |
| | 25013-15-4 | BENZENE, ETHENYLMETHYL- |
| E | 100-41-4 | BENZENE, ETHYL- |
| | 462-06-6 | BENZENE, FLUORO- |
| ES | 118-74-1 | BENZENE, HEXACHLORO- |
| E | 108-88-3 | BENZENE, METHYL- |
| E | 25321-14-6 | BENZENE, METHYLDINITRO- |
| E | 1321-12-6 | BENZENE, METHYLNITRO- |
| | 1320-01-0 | BENZENE, METHYLPENTYL- |
| E | 98-95-3 | BENZENE, NITRO- |
| E | 608-93-5 | BENZENE, PENTACHLORO- |
| E | 82-68-8 | BENZENE, PENTACHLORONITRO- |
| | 538-68-1 | BENZENE, PENTYL- |
| | 103-65-1 | BENZENE, PROPYL- |
| | 25551-13-7 | BENZENE, TRIMETHYL- |
| | 98-51-1 | BENZENE, 1-(1,1-DIMETHYLETHYL)-4-METHYL- |
| | 95-46-5 | BENZENE, 1-BROMO-2-METHYL- |
| | 106-38-7 | BENZENE, 1-BROMO-4-METHYL- |
| E | 101-55-3 | BENZENE, 1-BROMO-4-PHENOXY- |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 88-16-4 | BENZENE, 1-CHLORO-2-(TRIFLUOROMETHYL)- |
| | 2039-87-4 | BENZENE, 1-CHLORO-2-ETHENYL- |
| | 95-49-8 | BENZENE, 1-CHLORO-2-METHYL- |
| | 88-73-3 | BENZENE, 1-CHLORO-2-NITRO- |
| | 97-00-7 | BENZENE, 1-CHLORO-2,4-DINITRO- |
| | 121-73-3 | BENZENE, 1-CHLORO-3-NITRO- |
| | 100-00-5 | BENZENE, 1-CHLORO-4-NITRO- |
| | 777-37-7 | BENZENE, 1-CHLORO-4-NITRO-2-(TRIFLUOROMETHYL)- |
| E | 7005-72-3 | BENZENE, 1-CHLORO-4-PHENOXY- |
| E | 88-72-2 | BENZENE, 1-METHYL-2-NITRO- |
| E | 121-14-2 | BENZENE, 1-METHYL-2,4-DINITRO- |
| E | 99-08-1 | BENZENE, 1-METHYL-3-NITRO- |
| | 99-87-6 | BENZENE, 1-METHYL-4-(1-METHYLETHYL)- |
| E | 99-99-0 | BENZENE, 1-METHYL-4-NITRO- |
| E | 72-55-9 | BENZENE, 1,1′-(DICHLOROETHENYLIDENE)BIS[4-CHLORO- |
| | 93-96-9 | BENZENE, 1,1′-(OXYDIETHYLIDENE)BIS- |
| E | 72-54-8 | BENZENE, 1,1′-(2,2-DICHLOROETHYLIDENE)BIS[4-CHLORO- |
| ES | 50-29-3 | BENZENE, 1,1′-(2,2,2-TRICHLOROETHYLIDENE)BIS[4-CHLORO- |
| E | 72-43-5 | BENZENE, 1,1′-(2,2,2-TRICHLOROETHYLIDENE)BIS[4-METHOXY- |
| E | 101-68-8 | BENZENE, 1,1′-METHYLENEBIS[4-ISOCYANATO- |
| | 101-84-8 | BENZENE, 1,1′-OXYBIS- |
| E | 95-50-1 | BENZENE, 1,2-DICHLORO- |
| | 135-01-3 | BENZENE, 1,2-DIETHYL- |
| E | 95-47-6 | BENZENE, 1,2-DIMETHYL- |
| E | 528-29-0 | BENZENE, 1,2-DINITRO- |
| E | 120-82-1 | BENZENE, 1,2,4-TRICHLORO- |
| E | 95-94-3 | BENZENE, 1,2,4,5-TETRACHLORO- |
| E | 541-73-1 | BENZENE, 1,3-DICHLORO- |
| | 108-57-6 | BENZENE, 1,3-DIETHENYL- |
| | 141-93-5 | BENZENE, 1,3-DIETHYL- |
| E | 108-38-3 | BENZENE, 1,3-DIMETHYL- |
| E | 99-65-0 | BENZENE, 1,3-DINITRO- |
| E | 99-35-4 | BENZENE, 1,3,5-TRINITRO- |
| ES | 106-46-7 | BENZENE, 1,4-DICHLORO- |
| | 105-05-5 | BENZENE, 1,4-DIETHYL- |
| E | 106-42-3 | BENZENE, 1,4-DIMETHYL- |
| E | 100-25-4 | BENZENE, 1,4-DINITRO- |
| | 2100-42-7 | BENZENE, 2-CHLORO-1,4-DIMETHOXY- |
| E | 606-20-2 | BENZENE, 2-METHYL-1,3-DINITRO- |
| | 118-96-7 | BENZENE, 2-METHYL-1,3,5-TRINITRO- |
| ES | 1836-75-5 | BENZENE, 2,4-DICHLORO-1-(4-NITROPHENOXY)- |
| ES | 584-84-9 | BENZENE, 2,4-DIISOCYANATO-1-METHYL- |
| E | 610-39-9 | BENZENE, 4-METHYL-1,2-DINITRO- |
| E | 100-14-1 | BENZENE,1-(CHLOROMETHYL)-4-NITRO- |
| E | 26471-62-5 | BENZENE,2,4-DIISOCYANATOMETHYL- |
| E | 510-15-6 | BENZENEACETIC ACID, 4-CHLORO-.ALPHA.-(4-CHLOROPHENYL)-.ALPHA.-HYDROXY-, ETHYL ESTER |
| E | 140-29-4 | BENZENEACETONITRILE |
| E | 98-05-5 | BENZENEARSONIC ACID |
| ES | 305-03-3 | BENZENEBUTANOIC ACID, 4-[BIS(2-CHLOROETHYL)AMINO]- |
| | 614-45-9 | BENZENECARBOPEROXOIC ACID, 1,1-DIMETHYLETHYL ESTER |
| | 12385-08-9 | BENZENEDIOL |
| | 98-84-0 | BENZENEMETHANAMINE, .ALPHA.-METHYL- |
| S | 59-96-1 | BENZENEMETHANAMINE, N-(2-CHLOROETHYL)-N-(1-METHYL-2-PHENOXYETHYL)- |
| S | 63-92-3 | BENZENEMETHANAMINE, N-(2-CHLOROETHYL)-N-(1-METHYL-2-PHENOXYETHYL)-, HYDROCHLORIDE |
| | 92-59-1 | BENZENEMETHANAMINE, N-ETHYL-N-PHENYL- |
| | 772-54-3 | BENZENEMETHANAMINE, N,N-DIETHYL- |
| | 2449-49-2 | BENZENEMETHANAMINE, N,N,.ALPHA.-TRIMETHYL- |
| S | 1694-09-3 | BENZENEMETHANAMINIUM, PHENYL]METHYLENE]-2,5-CYCLOHEXADIEN-1-YLIDENE]-N-ETHYL--SULFO-, HYDROXIDE, INNER SALT, SODIUM SALT |
| | 100-53-8 | BENZENEMETHANETHIOL |
| | 100-51-6 | BENZENEMETHANOL |

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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 7568-93-6 | BENZENEMETHANOL, .ALPHA.-(AMINOMETHYL)- |
| | 2454-37-7 | BENZENEMETHANOL, 3-AMINO-.ALPHA.-METHYL- |
| E | 27176-87-0 | BENZENESULFONIC ACID, DODECYL- |
| E | 26264-06-2 | BENZENESULFONIC ACID, DODECYL-, CALCIUM SALT |
| E | 27323-41-7 | BENZENESULFONIC ACID, DODECYL-, COMPD. WITH 2,2′,2″-NITRILOTRIS[ETHANOL] (1:1) |
| E | 25155-30-0 | BENZENESULFONIC ACID, DODECYL-, SODIUM SALT |
| E | 54590-52-2 | BENZENESULFONIC ACID, 4-DODECYL-, COMPD. WITH 1-AMINO-2-PROPANOL (1:1) |
| E | 127-82-2 | BENZENESULFONIC ACID, 4-HYDROXY-, ZINC SALT (2:1) |
| | 104-15-4 | BENZENESULFONIC ACID, 4-METHYL- |
| | 80-48-8 | BENZENESULFONIC ACID, 4-METHYL-, METHYL ESTER |
| E | 108-98-5 | BENZENETHIOL |
| E | 3615-21-2 | BENZIMIDAZOLE, 4,5-DICHLORO-2-(TRIFLUOROMETHYL)- |
| ES | 50-32-8 | BENZO[A]PYRENE |
| E | 191-24-2 | BENZO[GHI]PERYLENE |
| ES | 205-82-3 | BENZO[J]FLUORANTHENE |
| ES | 207-08-9 | BENZO[K]FLUORANTHENE |
| ES | 189-55-9 | BENZO[RST]PENTAPHENE |
| E | 65-85-0 | BENZOIC ACID |
| E | 1863-63-4 | BENZOIC ACID, AMMONIUM SALT |
| | 136-60-7 | BENZOIC ACID, BUTYL ESTER |
| | 93-89-0 | BENZOIC ACID, ETHYL ESTER |
| | 50-78-2 | BENZOIC ACID, 2-(ACETYLOXY)- |
| | 119-36-8 | BENZOIC ACID, 2-HYDROXY-, METHYL ESTER |
| E | 1918-00-9 | BENZOIC ACID, 3,6-DICHLORO-2-METHOXY- |
| | | BENZOL DILUENT |
| E | 100-47-0 | BENZONITRILE |
| E | 1194-65-6 | BENZONITRILE, 2,6-DICHLORO- |
| E | 98-88-4 | BENZOYL CHLORIDE |
| S | 1302-52-9 | BERYL (AL2BE3(SIO3)6) |
| *ES | 7440-41-7 | BERYLLIUM |
| ES | | BERYLLIUM ALUMINUM ALLOY |
| ES | 7787-47-5 | BERYLLIUM CHLORIDE (BECL2) |
| E | | BERYLLIUM DUST |
| ES | 7787-49-7 | BERYLLIUM FLUORIDE (BEF2) |
| ES | 13327-32-7 | BERYLLIUM HYDROXIDE (BE(OH)2) |
| ES | 1304-56-9 | BERYLLIUM OXIDE (BEO) |
| | | BICHROMATES |
| E | 15271-41-7 | BICYCLO(2.2.1)HEPTANE-2-CARBONITRILE, 5-CHLORO-6-((((METHYLAMINO)CARBONYL)OXY)IMINO)-,(1S-(1-ALPHA, 2-BETA, 4-SLPHA, 5-ALPHA, 6E))- |
| | 16219-75-3 | BICYCLO[2.2.1]HEPT-2-ENE, 5-ETHYLIDENE- |
| | 121-46-0 | BICYCLO[2.2.1]HEPTA-2,5-DIENE |
| | 507-70-0 | BICYCLO[2.2.1]HEPTAN-2-OL, 1,7,7-TRIMETHYL-, ENDO- |
| | 76-22-2 | BICYCLO[2.2.1]HEPTAN-2-ONE, 1,7,7-TRIMETHYL- |
| | 80-56-8 | BICYCLO[3.1.1]HEPT-2-ENE, 2,6,6-TRIMETHYL- |
| E | 534-07-6 | BIS(CHLOROMETHYL) KETONE |
| | | BIS(2-(2-CHLOROETHOXY)ETHYL)ETHER |
| E | 108-60-1 | BIS(2-CHLOROISOPROPYL)ETHER |
| E | 103-23-1 | BIS(2-ETHYLHEXYL) ADIPATE |
| S | 154-93-8 | BISCHLOROETHYL NITROSOUREA |
| | 37293-14-4 | BISMUTH TELLURIDE |
| | 1304-82-1 | BISMUTH TELLURIDE (BI2TE3) |
| E | 4044-65-9 | BITOSCANATE |
| S | | BITUMENS, EXTRACTS OF STEAM REFINED AND AIR REFINED |
| S | | BOOT AND SHOE MANUFACTURE AND REPAIR (CERTAIN EXPOSURES) |
| | 10294-33-4 | BORANE, TRIBROMO- |
| | 97-94-9 | BORANE, TRIETHYL- |
| E | 7637-07-2 | BORANE, TRIFLUORO- |
| E | 13826-83-0 | BORATE(1-), TETRAFLUORO-, AMMONIUM |
| E | 13814-96-5 | BORATE(1-), TETRAFLUORO-, LEAD(2+) (2:1) |
| | 1303-96-4 | BORAX (B4NA2O7.10H2O) |
| | 688-74-4 | BORIC ACID (H3BO3), TRIBUTYL ESTER |
| | 121-43- | BORIC ACID (H3BO3), TRIMETHYL ESTER |
| | 5419-55-6 | BORIC ACID (H3BO3), TRIS(1-METHYLETHYL) ESTER |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 13195-76-1 | BORIC ACID (H3BO3), TRIS(2-METHYLPROPYL) ESTER |
| | 51845-86-4 | BORIC ACID, ETHYL ESTER |
| E | 1332-07-6 | BORIC ACID, ZINC SALT |
| | | BORNEO CAMPHOR |
| | 54566-73-3 | BORON OXIDE |
| | 1303-86-2 | BORON OXIDE (B2O3) |
| | 1330-43-4 | BORON SODIUM OXIDE (B4NA2O7) |
| E | 10294-34-5 | BORON TRICHLORIDE |
| E | 353-42-4 | BORON TRIFLUORIDE COMPOUND WITH METHYL ETHER(1:1) |
| | 109-63-7 | BORON, TRIFLUORO[1,1′-OXYBIS[ETHANE]]-, (T-4)- |
| E | 28772-56-7 | BROMADIOLONE |
| | 7758-01-2 | BROMIC ACID, POTASSIUM SALT |
| E | 7726-95-6 | BROMINE |
| | 7787-71-5 | BROMINE FLUORIDE (BRF3) |
| | 7789-30-2 | BROMINE FLUORIDE (BRF5) |
| E | 598-31-2 | BROMOACETONE |
| | | BRONZING LIQUID |
| E | 357-57-3 | BRUCINE |
| E | 123-72-8 | BUTANAL |
| | 110-69-0 | BUTANAL, OXIME |
| | 97-96-1 | BUTANAL, 2-ETHYL- |
| | 96-17-3 | BUTANAL, 2-METHYL- |
| | 107-89-1 | BUTANAL, 3-HYDROXY- |
| | 590-86-3 | BUTANAL, 3-METHYL- |
| | 92-15-9 | BUTANAMIDE, N-(2-METHOXYPHENYL)-3-OXO- |
| | 97-36-9 | BUTANAMIDE, N-(2,4-DIMETHYLPHENYL)-3-OXO- |
| | 122-82-7 | BUTANAMIDE, N-(4-ETHOXYPHENYL)-3-OXO- |
| | 102-01-2 | BUTANAMIDE, 3-OXO-N-PHENYL- |
| | 106-97-8 | BUTANE |
| | 111-34-2 | BUTANE, 1-(ETHENYLOXY)- |
| | 109-65-9 | BUTANE, 1-BROMO- |
| | 109-69-3 | BUTANE, 1-CHLORO- |
| | 107-84-6 | BUTANE, 1-CHLORO-3-METHYL- |
| | 628-81-9 | BUTANE, 1-ETHOXY- |
| | 111-36-4 | BUTANE, 1-ISOCYANATO- |
| | 142-96-1 | BUTANE, 1,1′-OXYBIS- |
| | 616-21-7 | BUTANE, 1,2-DICHLORO- |
| | 110-56-5 | BUTANE, 1,4-DICHLORO- |
| | 78-86-4 | BUTANE, 2-CHLORO- |
| | 594-36-5 | BUTANE, 2-CHLORO-2-METHYL- |
| | 78-78-4 | BUTANE, 2-METHYL- |
| | 75-83-2 | BUTANE, 2,2-DIMETHYL- |
| | 464-06-2 | BUTANE, 2,2,3-TRIMETHYL- |
| | 7581-97-7 | BUTANE, 2,3-DICHLORO- |
| | 79-29-8 | BUTANE, 2,3-DIMETHYL- |
| | 3333-52-6 | BUTANEDINITRILE, TETRAMETHYL- |
| E | 121-75-5 | BUTANEDIOIC ACID, [(DIMETHOXYPHOSPHINOTHIOYL)THIO]-, DIETHYL ESTER |
| E | 815-82-7 | BUTANEDIOIC ACID, 2,3-DIHYDROXY- [R-(R*,R*)]-, COPPER(2+) SALT (1:1) |
| E | 3164-29-2 | BUTANEDIOIC ACID, 2,3-DIHYDROXY- [R-(R*,R*)]-, DIAMMONIUM SALT |
| | 109-74-0 | BUTANENITRILE |
| E | 107-92-6 | BUTANOIC ACID |
| | 109-21-7 | BUTANOIC ACID, BUTYL ESTER |
| | 123-20-6 | BUTANOIC ACID, ETHENYL ESTER |
| | 105-54-4 | BUTANOIC ACID, ETHYL ESTER |
| | 623-42-7 | BUTANOIC ACID, METHYL ESTER |
| | 105-66-8 | BUTANOIC ACID, PROPYL ESTER |
| | 88-09-5 | BUTANOIC ACID, 2-ETHYL- |
| | 141-97-9 | BUTANOIC ACID, 3-OXO-, ETHYL ESTER |
| | 105-45-3 | BUTANOIC ACID, 3-OXO-, METHYL ESTER |
| | | BUTENES |
| | | BUTYL LITHIUM IN HYDROCARBON SOLVENTS |
| E | 4680-78-8 | C.I. ACID GREEN 3 |
| E | 569-64-2 | C.I. BASIC GREEN 4 |
| E | 12768-82-0 | C.I. BASIC ORANGE 15 |
| E | 989-38-8 | C.I. BASIC RED 1 |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**



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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| E | 2832-40-8 | C.I. DISPERSE YELLOW 3 |
| E | 81-88-9 | C.I. FOOD RED 15 |
| E | 12002-03-8 | C.I. PIGMENT GREEN 21 |
| E | 3118-97-6 | C.I. SOLVENT ORANGE 7 |
| E | 842-07-9 | C.I. SOLVENT YELLOW 14 |
| E | 128-66-5 | C.I. VAT YELLOW 4 |
| E | 75-60-5 | CACODYLIC ACID |
| *ES | 7440-43-9 | CADMIUM |
| E | 7789-42-6 | CADMIUM BROMIDE (CDBR2) |
| ES | 10108-64-2 | CADMIUM CHLORIDE (CDCL2) |
| E | | CADMIUM DUST |
| E | | CADMIUM FUME |
| ES | 1306-19-0 | CADMIUM OXIDE (CDO) |
| ES | | CADMIUM POWDER |
| E | 2223-93-0 | CADMIUM STEARATE |
| ES | 1306-23-6 | CADMIUM SULFIDE (CDS) |
| | 7440-70-2 | CALCIUM |
| E | 75-20-7 | CALCIUM CARBIDE (CAC2) |
| E | 592-01-8 | CALCIUM CYANIDE (CA(CN)2) |
| | 1305-62-0 | CALCIUM HYDROXIDE (CA(OH)2) |
| | 1305-78-8 | CALCIUM OXIDE (CAO) |
| | 7778-18-9 | CALCIUM SULFATE |
| E | 56-25-7 | CANTHARIDIN |
| E | 51-83-2 | CARBACHOL CHLORIDE |
| | 17804-35-2 | CARBAMIC ACID, [1-[(BUTYLAMINO)CARBONYL]-1H-BENZIMIDAZOL-2-YL]-, METHYL ESTER |
| ES | 51-79-6 | CARBAMIC ACID, ETHYL ESTER |
| E | 26419-73-8 | CARBAMIC ACID, METHYL-,O-(((2,4-DIMETHYL-1, 3-DITHIOLAN-2-YL)METHYLENE)AMINO)- |
| ES | 615-53-2 | CARBAMIC ACID, METHYLNITROSO-, ETHYL ESTER |
| E | 1111-78-0 | CARBAMIC ACID, MONOAMMONIUM SALT |
| | 88-10-8 | CARBAMIC CHLORIDE, DIETHYL- |
| ES | 79-44-7 | CARBAMIC CHLORIDE, DIMETHYL- |
| E | 630-10-4 | CARBAMIMIDOSELENOIC ACID |
| S | 95-06-7 | CARBAMODITHIOIC ACID, DIETHYL-, 2-CHLORO-2-PROPENYL ESTER |
| ES | 34731-32-3 | CARBAMODITHIOIC ACID, 1,2-ETHANEDIYL ESTER |
| E | 2303-16-4 | CARBAMOTHIOIC ACID, BIS(1-METHYLETHYL)-, S-(2,3-DICHLORO-2-PROPENYL) ESTER |
| | 1333-86-4 | CARBON BLACK |
| | 124-38-9 | CARBON DIOXIDE |
| E | 75-15-0 | CARBON DISULFIDE |
| E | 630-08-0 | CARBON MONOXIDE |
| E | 463-58-1 | CARBON OXIDE SULFIDE (COS) |
| E | 10361-29-2 | CARBONIC ACID, AMMONIUM SALT |
| ES | 13106-47-3 | CARBONIC ACID, BERYLLIUM SALT (1:1) |
| | 30714-78-4 | CARBONIC ACID, BUTYL ETHYL ESTER |
| E | 506-87-6 | CARBONIC ACID, DIAMMONIUM SALT |
| | 105-58-8 | CARBONIC ACID, DIETHYL ESTER |
| | 616-38-6 | CARBONIC ACID, DIMETHYL ESTER |
| E | 1066-33-7 | CARBONIC ACID, MONOAMMONIUM SALT |
| ES | 16337-84-1 | CARBONIC ACID, NICKEL SALT |
| ES | 3333-67-3 | CARBONIC ACID, NICKEL(2+) SALT (1:1) |
| ES | 17237-93-3 | CARBONIC ACID, NICKEL(2+) SALT (2:1) |
| E | 3486-35-9 | CARBONIC ACID, ZINC SALT (1:1) |
| E | 75-44-5 | CARBONIC DICHLORIDE |
| E | 353-50-4 | CARBONIC DIFLUORIDE |
| E | 541-41-3 | CARBONOCHLORIDIC ACID, ETHYL ESTER |
| | 2937-50-0 | CARBONOCHLORIDIC ACID, 2-PROPENYL ESTER |
| | 13889-92-4 | CARBONOCHLORIDOTHIOIC ACID, S-PROPYL ESTER |
| | 140-89-6 | CARBONODITHIOIC ACID, O-ETHYL ESTER, POTASSIUM SALT |
| E | 786-19-6 | CARBOPHENOTHION |
| S | 9000-07-1 | CARRAGEENAN |
| E | | CAUSTIC ARSENIC OIL |
| | 9004-34-6 | CELLULOSE |
| | 9004-70-0 | CELLULOSE, NITRATE |

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**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 65997-15-1 | CEMENT, PORTLAND, CHEMICALS |
| | 21351-79-1 | CESIUM HYDROXIDE (CS(OH)) |
| E | 133-90-4 | CHLORAMBEN |
| E | | CHLORDANE (TECHNICAL MIXTURE AND METABOLITES) |
| E | 13477-00-4 | CHLORIC ACID, BARIUM SALT |
| | 10137-74-3 | CHLORIC ACID, CALCIUM SALT |
| | 3811-04-9 | CHLORIC ACID, POTASSIUM SALT |
| | 7775-09-9 | CHLORIC ACID, SODIUM SALT |
| E | 10361-95-2 | CHLORIC ACID, ZINC SALT |
| E | | CHLORINATED BENZENES |
| | 55720-99-5 | CHLORINATED DIPHENYL OXIDE |
| E | | CHLORINATED ETHANES |
| E | | CHLORINATED NAPHTHALENE |
| E | | CHLORINATED PHENOLS |
| E | 7782-50-5 | CHLORINE |
| | 7790-91-2 | CHLORINE FLUORIDE (CLF3) |
| E | 10049-04-4 | CHLORINE OXIDE (CLO2) |
| | 7791-21-1 | CHLORINE OXIDE (CL2O) |
| E | 24934-91-6 | CHLORMEPHOS |
| E | 999-81-5 | CHLORMEQUAT CHLORIDE |
| | 78-95-5 | CHLOROACETONE |
| E | | CHLOROALKYL ETHERS |
| E | 627-11-2 | CHLOROETHYL CHLOROFORMATE |
| E | 3691-35-8 | CHLOROPHACINONE |
| ES | | CHLOROPHENOLS |
| E | 7790-94-5 | CHLOROSULFURIC ACID |
| E | 1897-45-6 | CHLOROTHALONIL |
| | 7758-19-2 | CHLOROUS ACID, SODIUM SALT |
| E | 1982-47-4 | CHLOROXURON |
| E | 21923-23-9 | CHLORTHIOPHOS |
| E | 11115-74-5 | CHROMIC ACID |
| E | 7738-94-5 | CHROMIC ACID |
| | 1189-85-1 | CHROMIC ACID (H2CRO4), BIS(1,1-DIMETHYLETHYL) ESTER |
| ES | 13765-19-0 | CHROMIC ACID (H2CRO4), CALCIUM SALT (1:1) |
| E | 7788-98-9 | CHROMIC ACID (H2CRO4), DIAMMONIUM SALT |
| E | 14307-35-8 | CHROMIC ACID (H2CRO4), DILITHIUM SALT |
| E | 7789-00-6 | CHROMIC ACID (H2CRO4), DIPOTASSIUM SALT |
| E | 7775-11-3 | CHROMIC ACID (H2CRO4), DISODIUM SALT |
| ES | 7758-97-6 | CHROMIC ACID (H2CRO4), LEAD(2+) SALT (1:1) |
| | 13423-61-5 | CHROMIC ACID (H2CRO4), MAGNESIUM SALT (1:1) |
| ES | 7789-06-2 | CHROMIC ACID (H2CRO4), STRONTIUM SALT (1:1) |
| ES | 13530-65-9 | CHROMIC ACID (H2CRO4), ZINC SALT (1:1) |
| E | 13530-68-2 | CHROMIC ACID (H2CR2O7) |
| | 14307-33-6 | CHROMIC ACID (H2CR2O7), CALCIUM SALT (1:1) |
| E | 7789-09-5 | CHROMIC ACID (H2CR2O7), DIAMMONIUM SALT |
| E | 7778-50-9 | CHROMIC ACID (H2CR2O7), DIPOTASSIUM SALT |
| E | 10588-01-9 | CHROMIC ACID (H2CR2O7), DISODIUM SALT |
| E | 14018-95-2 | CHROMIC ACID (H2CR2O7), ZINC SALT (1:1) |
| E | 10025-73-7 | CHROMIC CHLORIDE |
| | | CHROMITE ORE PROCESSING (CHROMATE) |
| *ES | 7440-47-3 | CHROMIUM |
| E | 10049-05-5 | CHROMIUM CHLORIDE (CRCL2) |
| ES | | CHROMIUM COMPOUNDS, HEXAVALENT |
| ES | 11119-70-3 | CHROMIUM LEAD OXIDE |
| S | 1333-82-0 | CHROMIUM OXIDE (CRO3) |
| E | 12680-48-7 | CHROMIUM SODIUM OXIDE |
| E | 14977-61-8 | CHROMIUM, DICHLORODIOXO-, (T-4)- |
| E | 22541-79-3 | CHROMIUM, ION (CR2+) |
| E | 16065-83-1 | CHROMIUM, ION (CR3+) |
| E | 18540-29-9 | CHROMIUM, ION (CR6+) |
| E | 218-01-9 | CHRYSENE |
| S | 3697-24-3 | CHRYSENE, 5-METHYL- |
| S | 12001-29-5 | CHRYSOTILE (MG3H2(SIO4)2.H2O) |
| | | COAL DUST |
| | | COAL GAS |

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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| S | | COAL GASSIFICATION PROCESS (OLDER) |
| S | | COAL SOOT |
| | | COAL TAR PITCH VOLATILES AS BENZENE SOLUBLES |
| S | | COAL TAR PITCHES |
| S | | COAL TARS (DURING DESTRUCTIVE DISTILLATION) |
| *E | 7440-48-4 | COBALT |
| E | 7789-43-7 | COBALT BROMIDE (COBR2) |
| | 37264-96-3 | COBALT CARBONYL |
| E | 10210-68-1 | COBALT CARBONYL |
| S | | COBALT CHROMIUM ALLOY |
| | | COBALT FUME |
| E | 62207-76-5 | COBALT, ((2,2′-(1,2-ETHANEDIYLBIS (NITRILOMETHYLIDYNE))BIS(6-FLUOROPHENOLATO))(2-)-N,N′,O,O′)-, |
| | 16842-03-8 | COBALT, TETRACARBONYLHYDRO- |
| | 8001-69-2 | COD-LIVER OIL |
| ES | | COKE OVEN EMISSIONS |
| S | | COKE PRODUCTION |
| | | COKE-OVEN GAS |
| E | 64-86-8 | COLCHICINE |
| | | COMBINED ORAL CONTRACEPTIVES |
| S | 7280-37-7 | CONJUGATED ESTROGENS: PIPERAZINE ESTRONE SULFATE |
| S | 16680-47-0 | CONJUGATED ESTROGENS: SODIUM EQUILIN SULFATE |
| S | 438-67-5 | CONJUGATED ESTROGENS: SODIUM ESTRONE SULFATE |
| S | | CONJUGATED OESTROGENS |
| *E | 7440-50-8 | COPPER |
| E | 7447-39-4 | COPPER CHLORIDE (CUCL2) |
| E | 544-92-3 | COPPER CYANIDE |
| E | | COPPER DUST |
| E | | COPPER FUME |
| E | 10380-29-7 | COPPER(2+), TETRAAMMINE-, SULFATE (1:1), MONOHYDRATE |
| | 8001-30-7 | CORN OIL |
| | | COTTON DUST, RAW |
| | 8001-29-4 | COTTONSEED OIL |
| E | 5836-29-3 | COUMATETRALYL |
| ES | 8001-58-9 | CREOSOTE |
| E | 535-89-7 | CRIMIDINE |
| | 14464-46-1 | CRISTOBALITE (SIO2) |
| | | CRISTOBALITE DUST |
| S | 12001-28-4 | CROCIDOLITE |
| S | 61105-31-5 | CROCIDOLITE (FE2MG3NA2(SIO3)8) |
| S | 53799-46-5 | CROCIDOLITE (FE5NA2(SIO3)8) |
| E | 123-73-9 | CROTONALDEHYDE |
| ES | 16071-86-6 | CUPRATE(2-), BIPHENYL]-4-YL]AZO-2-HYDROXYBENZOATO(4-)]-, DISODIUM |
| E | 5893-66-3 | CUPRIC OXALATE |
| | 420-04-2 | CYANAMIDE |
| E | 156-62-7 | CYANAMIDE, CALCIUM SALT (1:1) |
| | 1467-79-4 | CYANAMIDE, DIMETHYL- |
| *E | 57-12-5 | CYANIDE |
| E | 2074-87-5 | CYANOGEN |
| E | 506-68-3 | CYANOGEN BROMIDE |
| E | 506-77-4 | CYANOGEN CHLORIDE |
| E | 506-78-5 | CYANOGEN IODIDE |
| E | 2636-26-2 | CYANOPHOS |
| E | 675-14-9 | CYANURIC FLUORIDE |
| | 287-23-0 | CYCLOBUTANE |
| | 4806-61-5 | CYCLOBUTANE, ETHYL- |
| | 291-64-5 | CYCLOHEPTANE |
| E | 108-91-8 | CYCLOHEXANAMINE |
| | 1195-42-2 | CYCLOHEXANAMINE, N-(1-METHYLETHYL)- |
| | 5432-61-1 | CYCLOHEXANAMINE, N-(2-ETHYLHEXYL)- |
| | 10108-56-2 | CYCLOHEXANAMINE, N-BUTYL- |
| | 101-83-7 | CYCLOHEXANAMINE, N-CYCLOHEXYL- |
| | 5459-93-8 | CYCLOHEXANAMINE, N-ETHYL- |

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**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| E | 110-82-7 | CYCLOHEXANE |
| | 542-18-7 | CYCLOHEXANE, CHLORO- |
| | 1331-43-7 | CYCLOHEXANE, DIETHYL- |
| | 1678-91-7 | CYCLOHEXANE, ETHYL- |
| | 108-87-2 | CYCLOHEXANE, METHYL- |
| E | 1122-60-7 | CYCLOHEXANE, NITRO- |
| | 5124-30-1 | CYCLOHEXANE, 1,1′-METHYLENEBIS[4-ISOCYANATO- |
| S | 608-73-1 | CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO- |
| E | 319-86-8 | CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1.ALPHA.,2.ALPHA.,3.ALPHA.,4.BETA.,5.ALPHA.,6.BETA.)- |
| ES | 58-89-9 | CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1.ALPHA.,2.ALPHA.,3.BETA.,4.ALPHA.,5.ALPHA.,6.BETA.)- |
| ES | 319-84-6 | CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1.ALPHA.,2.ALPHA.,3.BETA.,4.ALPHA.,5.BETA.,6.BETA.)- |
| ES | 319-85-7 | CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1.ALPHA.,2.BETA.,3.ALPHA.,4.BETA.,5.ALPHA.,6.BETA.)- |
| | 591-21-9 | CYCLOHEXANE, 1,3-DIMETHYL- |
| | 589-90-2 | CYCLOHEXANE, 1,4-DIMETHYL- |
| | 624-29-3 | CYCLOHEXANE, 1,4-DIMETHYL-, CIS- |
| | 2207-04-7 | CYCLOHEXANE, 1,4-DIMETHYL-, TRANS- |
| E | 4098-71-9 | CYCLOHEXANE, 5-ISOCYANATO-1-(ISOCYANATOMETHYL)-1,3,3-TRIMETHYL- |
| | 108-93-0 | CYCLOHEXANOL |
| | 25639-42-3 | CYCLOHEXANOL, METHYL- |
| | 1321-60-4 | CYCLOHEXANOL, TRIMETHYL- |
| | 116-02-9 | CYCLOHEXANOL, 3,3,5-TRIMETHYL- |
| E | 108-94-1 | CYCLOHEXANONE |
| | 583-60-8 | CYCLOHEXANONE, 2-METHYL- |
| | 110-83-8 | CYCLOHEXENE |
| | 100-40-3 | CYCLOHEXENE, 4-ETHENYL- |
| | 591-47-9 | CYCLOHEXENE, 4-METHYL- |
| | 1321-16-0 | CYCLOHEXENECARBOXALDEHYDE |
| | 287-92-3 | CYCLOPENTANE |
| | 1640-89-7 | CYCLOPENTANE, ETHYL- |
| | 96-37-7 | CYCLOPENTANE, METHYL- |
| | 120-92-3 | CYCLOPENTANONE |
| | 142-29-0 | CYCLOPENTENE |
| | 75-19-4 | CYCLOPROPANE |
| E | 121-21-1 | CYCLOPROPANECARBOXYLIC ACID, 2,2-DIMETHYL-3-(2-METHYL-1-PROPENYL)-, 2-METHYL-4-OXO-3-(2,4-PENTADIENYL)-2-CYCLOPENTEN-1-YL ESTER, [1R-[1.ALPHA.[S*()],3.BETA.]]- |
| E | 121-29-9 | CYCLOPROPANECARBOXYLIC ACID, 3-(3-METHOXY-2-METHYL-3-OXO-1-PROPENYL)-2,2-DIMETHYL-, 2-METHYL-4-OXO-3-(2,4-PENTADIENYL)-2-CYCLOPENTEN-1-YL ESTER, [R-[1.ALPHA.[S*(Z)],3.BETA.(E)]]- |
| ES | 18883-66-4 | D-GLUCOSE, 2-DEOXY-2-[[(METHYLNITROSOAMINO)CARBONYL]AMINO]- |
| E | | DDT AND METABOLITES |
| E | 17702-41-9 | DECABORANE(14) |
| E | 1163-19-5 | DECABROMODIPHENYL OXIDE |
| | 124-18-5 | DECANE |
| E | 919-86-8 | DEMETON-S-METHYL |
| | | DENATURED ALCOHOL |
| | 7782-39-0 | DEUTERIUM |
| E | 10311-84-9 | DIALIFOS |
| E | 25376-45-8 | DIAMINOTOLUENE |
| E | 823-40-5 | DIAMINOTOLUENE |
| E | 496-72-0 | DIAMINOTOLUENE |
| ES | 226-36-8 | DIBENZ[A,H]ACRIDINE |
| ES | 53-70-3 | DIBENZ[A,H]ANTHRACENE |
| ES | 224-42-0 | DIBENZ[A,J]ACRIDINE |
| S | | DIBENZO(A,L)PYRENE |
| ES | 189-64-0 | DIBENZO[B,DEF]CHRYSENE |
| ES | 1746-01-6 | DIBENZO[B,E][1,4]DIOXIN, 2,3,7,8-TETRACHLORO- |
| E | 132-64-9 | DIBENZOFURAN |
| | | DIBENZOYL CHLORIDE |
| E | 19287-45-7 | DIBORANE(6) |
| E | | DICHLOROBENZIDINE |

***—ANY COMPOUND OF THIS SUBSTANCE IS ALSO AN ENVIRONMENTAL HAZARD**
**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**



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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| E | 149-74-6 | DICHLOROMETHYLPHENLSILANE |
| | | DICHLOROPENTANES |
| E | 26638-19-7 | DICHLOROPROPANE |
| | | DICHLOROSILANE |
| | | DICHROMATES |
| S | | DIENOESTROL |
| | | DIESEL FUEL OIL |
| | | DIETHYL ACETOACETATE |
| E | 814-49-3 | DIETHYL CHLOROPHOSPHATE |
| E | 311-45-5 | DIETHYL-P-NITROPHENYL PHOSPHATE |
| E | 1642-54-2 | DIETHYLCARBAMAZINE CITRATE |
| E | 71-63-6 | DIGITOXIN |
| S | | DIGLYCIDYL RESORCINOL ETHER |
| E | 20830-75-5 | DIGOXIN |
| E | 115-26-4 | DIMEFOX |
| E | 60-51-5 | DIMETHOATE |
| E | 2524-03-0 | DIMETHYL PHOSPHOROCHLORIDOTHIOATE |
| E | 99-98-9 | DIMETHYL-P-PHENYLENEDIAMINE |
| | | DIMETHYLPIPERAZINE-CIS |
| E | 644-64-4 | DIMETILAN |
| E | 88-85-7 | DINOSEB |
| E | 1420-07-1 | DINOTERB |
| E | 82-66-6 | DIPHACINONE |
| E | | DIPHENYLHYDRAZINE |
| E | 152-16-9 | DIPHOSPHORAMIDE,OCTAMETHYL- |
| E | 107-49-3 | DIPHOSPHORIC ACID, TETRAETHYL ESTER |
| | 7722-88-5 | DIPHOSPHORIC ACID, TETRASODIUM SALT |
| E | 2764-72-9 | DIPYRIDO[1,2-A:2′,1′-C]PYRAZINEDIIUM, 6,7-DIHYDRO- |
| E | 85-00-7 | DIPYRIDO[1,2-A:2′,1′-C]PYRAZINEDIIUM, 6,7-DIHYDRO-, DIBROMIDE |
| | 65996-91-0 | DISTILLATES (COAL TAR), UPPER |
| | 2179-59-1 | DISULFIDE, 2-PROPENYL PROPYL |
| | 7681-57-4 | DISULFUROUS ACID, DISODIUM SALT |
| | 7757-74-6 | DISULFUROUS ACID, DISODIUM SALT |
| E | 514-73-8 | DITHIAZANINE IODIDE |
| E | 541-53-7 | DITHIOBIURET |
| | 7775-14-6 | DITHIONOUS ACID, DISODIUM SALT |
| E | 7779-86-4 | DITHIONOUS ACID, ZINC SALT (1:1) |
| S | 531-76-0 | DL-PHENYLALANINE, 4-[BIS(2-CHLOROETHYL)AMINO]- |
| | 5350-03-8 | DODECANOIC ACID, PENTYL ESTER |
| | 12415-34-8 | EMERY |
| E | 316-42-7 | EMETINE,DIHYDROCHLORIDE |
| E | | ENDOSULFAN AND METABOLITES |
| E | 145-73-3 | ENDOTHALL |
| E | 2778-04-3 | ENDOTHION |
| E | | ENDRIN AND METABOLITES |
| E | 50-14-6 | ERGOCALCIFEROL |
| E | 379-79-3 | ERGOTAMINE TARTRATE |
| S | 53-16-7 | ESTRA-1,3,5(10)-TRIEN-17-ONE, 3-HYDROXY- |
| S | 50-28-2 | ESTRA-1,3,5(10)-TRIENE-3,17-DIOL (17.BETA.)- |
| E | 75-04-7 | ETHANAMINE |
| E | 109-89-7 | ETHANAMINE, N-ETHYL- |
| ES | 55-18-5 | ETHANAMINE, N-ETHYL-N-NITROSO- |
| ES | 10595-95-6 | ETHANAMINE, N-METHYL-N-NITROSO- |
| E | 121-44-8 | ETHANAMINE, N,N-DIETHYL- |
| ES | 55-86-7 | ETHANAMINE, 2-CHLORO-N-(2-CHLOROETHYL)-N-METHYL-, HYDROCHLORIDE |
| ES | 302-70-5 | ETHANAMINE, 2-CHLORO-N-(2-CHLOROETHYL)-N-METHYL-, N-OXIDE, HYDROCHLORIDE |
| | 74-84-0 | ETHANE |
| | 74-96-4 | ETHANE, BROMO- |
| E | 75-00-3 | ETHANE, CHLORO- |
| | 76-15-3 | ETHANE, CHLOROPENTAFLUORO- |
| | 1320-37-2 | ETHANE, DICHLOROTETRAFLUORO- |
| | 353-36-6 | ETHANE, FLUORO- |
| E | 67-72-1 | ETHANE, HEXACHLORO- |
| | 540-67-0 | ETHANE, METHOXY- |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 79-24-3 | ETHANE, NITRO- |
| | 598-92-5 | ETHANE, 1-CHLORO-1-NITRO- |
| | 75-68-3 | ETHANE, 1-CHLORO-1,1-DIFLUORO- |
| E | 75-34-3 | ETHANE, 1,1-DICHLORO- |
| | 594-72-9 | ETHANE, 1,1-DICHLORO-1-NITRO- |
| | 105-57-7 | ETHANE, 1,1-DIETHOXY- |
| E | 71-55-6 | ETHANE, 1,1,1-TRICHLORO- |
| E | 630-20-6 | ETHANE, 1,1,1,2-TETRACHLORO- |
| | 76-11-9 | ETHANE, 1,1,1,2-TETRACHLORO-2,2-DIFLUORO- |
| E | 79-00-5 | ETHANE, 1,1,2-TRICHLORO- |
| E | 76-13-1 | ETHANE, 1,1,2-TRICHLORO-1,2,2-TRIFLUORO- |
| | 79-27-6 | ETHANE, 1,1,2,2-TETRABROMO- |
| E | 79-34-5 | ETHANE, 1,1,2,2-TETRACHLORO- |
| | 76-12-0 | ETHANE, 1,1,2,2-TETRACHLORO-1,2-DIFLUORO- |
| E | 111-91-1 | ETHANE, 1,1′-[METHYLENEBIS(OXY)]BIS[2-CHLORO- |
| E | 60-29-7 | ETHANE, 1,1′-OXYBIS- |
| E | 111-44-4 | ETHANE, 1,1′-OXYBIS[2-CHLORO- |
| | 627-53-2 | ETHANE, 1,1′-SELENOBIS- |
| ES | 505-60-2 | ETHANE, 1,1′-THIOBIS[2-CHLORO- |
| | 122-51-0 | ETHANE, 1,1′,1″-[METHYLIDYNETRIS(OXY)]TRIS- |
| | 112-26-5 | ETHANE, 1,2-BIS(2-CHLOROETHOXY)- |
| ES | 106-93-4 | ETHANE, 1,2-DIBROMO- |
| ES | 107-06-2 | ETHANE, 1,2-DICHLORO- |
| | 629-14-1 | ETHANE, 1,2-DIETHOXY- |
| | 110-71-4 | ETHANE, 1,2-DIMETHOXY- |
| | 97-97-2 | ETHANE, 2-CHLORO-1,1-DIMETHOXY- |
| E | 460-19-5 | ETHANEDINITRILE |
| | 144-62-7 | ETHANEDIOIC ACID |
| E | 2944-67-4 | ETHANEDIOIC ACID, AMMONIUM IRON(3+) SALT (3:3:1) |
| E | 14258-49-2 | ETHANEDIOIC ACID, AMMONIUM SALT |
| E | 6009-70-7 | ETHANEDIOIC ACID, DIAMMONIUM SALT, MONOHYDRATE |
| | 6153-56-6 | ETHANEDIOIC ACID, DIHYDRATE |
| E | 5972-73-6 | ETHANEDIOIC ACID, MONOAMMONIUM SALT, MONOHYDRATE |
| E | 79-21-0 | ETHANEPEROXOIC ACID |
| | 107-71-1 | ETHANEPEROXOIC ACID, 1,1-DIMETHYLETHYL ESTER |
| E | 1622-32-8 | ETHANESULFONYL CHLORIDE, 2-CHLORO- |
| ES | 62-55-5 | ETHANETHIOAMIDE |
| | 75-08-1 | ETHANETHIOL |
| E | 16752-77-5 | ETHANIMIDOTHIOIC ACID, N-[[(METHYLAMINO)CARBONYL]OXY]-, METHYL ESTER |
| | 64-17-5 | ETHANOL |
| E | 10140-87-1 | ETHANOL, 1,2-AICHLORO-, ACETATE |
| | 2842-38-8 | ETHANOL, 2-(CYCLOHEXYLAMINO)- |
| | 102-81-8 | ETHANOL, 2-(DIBUTYLAMINO)- |
| | 100-37-8 | ETHANOL, 2-(DIETHYLAMINO)- |
| | 108-01-0 | ETHANOL, 2-(DIMETHYLAMINO)- |
| | 92-50-2 | ETHANOL, 2-(ETHYLPHENYLAMINO)- |
| | 109-83-1 | ETHANOL, 2-(METHYLAMINO)- |
| | 93-90-3 | ETHANOL, 2-(METHYLPHENYLAMINO)- |
| | 122-98-5 | ETHANOL, 2-(PHENYLAMINO)- |
| | 622-08-2 | ETHANOL, 2-(PHENYLMETHOXY)- |
| | 109-59-1 | ETHANOL, 2-(1-METHYLETHOXY)- |
| | 111-77-3 | ETHANOL, 2-(2-METHOXYETHOXY)- |
| | 4439-24-1 | ETHANOL, 2-(2-METHYLPROPOXY)- |
| | 136-78-7 | ETHANOL, 2-(2,4-DICHLOROPHENOXY)-, HYDROGEN SULFATE, SODIUM SALT |
| | 10138-74-6 | ETHANOL, 2-[(2-AMINO-1-METHYLETHYL)AMINO]- |
| | 111-41-1 | ETHANOL, 2-[(2-AMINOETHYL)AMINO]- |
| | 141-43-5 | ETHANOL, 2-AMINO- |
| | 111-76-2 | ETHANOL, 2-BUTOXY- |
| E | 107-07-3 | ETHANOL, 2-CHLORO- |
| | 542-58-5 | ETHANOL, 2-CHLORO-, ACETATE |
| E | 110-80-5 | ETHANOL, 2-ETHOXY- |
| | 111-15-9 | ETHANOL, 2-ETHOXY-, ACETATE |
| | 60-24-2 | ETHANOL, 2-MERCAPTO- |
| E | 109-86-4 | ETHANOL, 2-METHOXY- |
| | 110-49-6 | ETHANOL, 2-METHOXY-, ACETATE |

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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 102-79-4 | ETHANOL, 2,2′-(BUTYLIMINO)BIS- |
| | 139-87-7 | ETHANOL, 2,2′-(ETHYLIMINO)BIS- |
| ES | 1116-54-7 | ETHANOL, 2,2′-(NITROSOIMINO)BIS- |
| | 2160-93-2 | ETHANOL, 2,2′-[(1,1-DIMETHYLETHYL)IMINO]BIS- |
| | 91-99-6 | ETHANOL, 2,2′-[(3-METHYLPHENYL)IMINO]BIS- |
| | 112-27-6 | ETHANOL, 2,2′-[1,2-ETHANEDIYLBIS(OXY)]BIS- |
| E | 111-42-2 | ETHANOL, 2,2′-IMINOBIS- |
| | 111-46-6 | ETHANOL, 2,2′-OXYBIS- |
| | 111-48-8 | ETHANOL, 2,2′-THIOBIS- |
| | 102-71-6 | ETHANOL, 2,2′,2″-NITRILOTRIS- |
| E | 98-86-2 | ETHANONE, 1-PHENYL- |
| | 1341-24-8 | ETHANONE, 1-PHENYL-, MONOCHLORO DERIV. |
| E | 532-27-4 | ETHANONE, 2-CHLORO-1-PHENYL- |
| ES | 4549-40-0 | ETHENAMINE, N-METHYL-N-NITROSO- |
| E | 74-85-1 | ETHENE |
| E | 110-75-8 | ETHENE, (2-CHLOROETHOXY)- |
| | 1663-35-0 | ETHENE, (2-METHOXYETHOXY)- |
| E | 593-60-2 | ETHENE, BROMO- |
| ES | 75-01-4 | ETHENE, CHLORO- |
| | 79-38-9 | ETHENE, CHLOROTRIFLUORO- |
| | 109-92-2 | ETHENE, ETHOXY- |
| | 75-02-5 | ETHENE, FLUORO- |
| | 107-25-5 | ETHENE, METHOXY- |
| ES | 127-18-4 | ETHENE, TETRACHLORO- |
| | 116-14-3 | ETHENE, TETRAFLUORO- |
| | 9002-84-0 | ETHENE, TETRAFLUORO-, HOMOPOLYMER |
| E | 79-01-6 | ETHENE, TRICHLORO- |
| E | 75-35-4 | ETHENE, 1,1-DICHLORO- |
| | 75-38-7 | ETHENE, 1,1-DIFLUORO- |
| | 109-93-3 | ETHENE, 1,1′-OXYBIS- |
| E | 540-59-0 | ETHENE, 1,2-DICHLORO- |
| E | 156-60-5 | ETHENE, 1,2-DICHLORO-, (E)- |
| | 156-59-2 | ETHENE, 1,2-DICHLORO-, (Z)- |
| | 463-51-4 | ETHENONE |
| | | ETHYL ALCOHOL AND WATER |
| E | 542-90-5 | ETHYL THIOCYANATE |
| E | 538-07-8 | ETHYLBIS(2-CHLOROETHYL)AMINE |
| E | 371-62-0 | ETHYLENE FLUOROHYDRIN |
| | 74-86-2 | ETHYNE |
| | 7572-29-4 | ETHYNE, DICHLORO- |
| | 927-80-0 | ETHYNE, ETHOXY- |
| E | 52-85-7 | FAMPHUR |
| E | 122-14-5 | FENITROTHION |
| E | 55488-87-4 | FERRIC AMMONIUM OXALATE |
| | 102-54-5 | FERROCENE |
| E | 7782-63-0 | FERROUS SULFATE |
| | | FIBROUS GLASS DUST |
| S | 59536-65-1 | FIREMASTER BP 6 |
| | 65996-68-1 | FLUE GASES, FERROUS METAL, BLAST FURNACE |
| E | 4301-50-2 | FLUENETIL |
| E | 2164-17-2 | FLUOMETURON |
| E | 206-44-0 | FLUORANTHENE |
| | 16984-48-8 | FLUORIDE |
| | | FLUORIDE DUST |
| E | 7782-41-4 | FLUORINE |
| E | 144-49-0 | FLUOROACETIC ACID |
| E | 359-06-8 | FLUOROACETYL CHLORIDE |
| E | 51-21-8 | FLUOROURACIL |
| ES | 50-00-0 | FORMALDEHYDE |
| E | 107-16-4 | FORMALDEHYDE CYANOHYDRIN |
| | 75-12-7 | FORMAMIDE |
| | 68-12-2 | FORMAMIDE, N,N-DIMETHYL- |
| E | 23422-53-9 | FORMETANATE |
| E | 64-18-6 | FORMIC ACID |
| | 592-84-7 | FORMIC ACID, BUTYL ESTER |

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**E—ENVIRONMENTAL HAZARD**
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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| E | 544-18-3 | FORMIC ACID, COBALT(2+) SALT |
| | 109-94-4 | FORMIC ACID, ETHYL ESTER |
| | 107-31-3 | FORMIC ACID, METHYL ESTER |
| | 638-49-3 | FORMIC ACID, PENTYL ESTER |
| | 110-74-7 | FORMIC ACID, PROPYL ESTER |
| E | 557-41-5 | FORMIC ACID, ZINC SALT |
| E | 625-55-8 | FORMIC ACID, 1-METHYLETHYL ESTER |
| | 542-55-2 | FORMIC ACID, 2-METHYLPROPYL ESTER |
| E | 2540-82-1 | FORMOTHION |
| E | 17702-57-7 | FORMPARANATE |
| E | 21548-32-3 | FOSTHIETAN |
| E | 3878-19-1 | FUBERIDAZOLE |
| | 68476-26-6 | FUEL GASES |
| | 8006-20-0 | FUEL GASES, PRODUCER GAS |
| | 8021-92-9 | FUEL GASES, WATER GAS |
| | | FUEL OIL |
| E | 628-86-4 | FULMINIC ACID, MERCURY(II)SALT |
| E | 110-00-9 | FURAN |
| E | 109-99-9 | FURAN, TETRAHYDRO- |
| | 96-47-9 | FURAN, TETRAHYDRO-2-METHYL- |
| | 534-22-5 | FURAN, 2-METHYL- |
| | 625-86-5 | FURAN, 2,5-DIMETHYL- |
| S | | FURNITURE AND CABINET MAKING |
| E | 13450-90-3 | GALLIUM TRICHLORIDE |
| | 86290-81-5 | GASOLINE |
| | | GASOLINE (CASINGHEAD) |
| | 68425-31-0 | GASOLINE (NATURAL GAS), NATURAL |
| | 7782-65-2 | GERMANE |
| E | 765-33-4 | GLYCIDYLALDEHYDE |
| ES | 13256-22-9 | GLYCINE, N-METHYL-N-NITROSO- |
| ES | 139-13-9 | GLYCINE, N,N-BIS(CARBOXYMETHYL)- |
| E | 60-00-4 | GLYCINE, N,N′-1,2-ETHANEDIYLBIS[N-(CARBOXYMETHYL)- |
| E | | GLYCOL ETHERS |
| | | GRAIN DUST (OAT, WHEAT, BARLEY) |
| | 7782-42-5 | GRAPHITE |
| | | GRAPHITE (SYNTHETIC) |
| ES | 70-25-7 | GUANIDINE, N-METHYL-N′-NITRO-N-NITROSO- |
| | 13397-24-5 | GYPSUM (CA(SO4).2H2O) |
| | 7440-58-6 | HAFNIUM |
| E | | HALOETHERS |
| E | | HALOMETHANES |
| | 7440-59-7 | HELIUM |
| | | HEMATITE UNDERGROUND MINING (WITH EXPOSURE TO RADON) |
| E | | HEPTACHLOR AND METABOLITES |
| | 142-82-5 | HEPTANE |
| | 123-04-6 | HEPTANE, 3-(CHLOROMETHYL)- |
| | 103-44-6 | HEPTANE, 3-[(ETHENYLOXY)METHYL]- |
| | 4032-86-4 | HEPTANE, 3,3-DIMETHYL- |
| | 25339-56-4 | HEPTENE |
| | | HEXACHLORO DIPHENYL OXIDE |
| E | 70-30-4 | HEXACHLOROPHENE |
| E | 1888-71-7 | HEXACHLOROPROPENE |
| E | 757-58-4 | HEXAETHYL TETRAPHOSPHATE |
| E | 4835-11-4 | HEXAMETHYLENEDIAMINE, N,N′-DIBUTYL- |
| | 66-25-1 | HEXANAL |
| | 123-05-7 | HEXANAL, 2-ETHYL- |
| | 496-03-7 | HEXANAL, 2-ETHYL-3-HYDROXY- |
| | 110-54-3 | HEXANE |
| | 25495-90-3 | HEXANE, CHLORO- |
| | 544-10-5 | HEXANE, 1-CHLORO- |
| | 112-58-3 | HEXANE, 1,1′-OXYBIS- |
| | 591-76-4 | HEXANE, 2-METHYL- |
| | 3522-94-9 | HEXANE, 2,2,5-TRIMETHYL- |
| | 584-94-1 | HEXANE, 2,3-DIMETHYL- |
| | 589-43-5 | HEXANE, 2,4-DIMETHYL- |

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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 3074-77-9 | HEXANE, 3-ETHYL-4-METHYL- |
| | 589-34-4 | HEXANE, 3-METHYL- |
| | 3074-75-7 | HEXANE, 4-ETHYL-2-METHYL- |
| E | 111-69-3 | HEXANEDINITRILE |
| E | 124-04-9 | HEXANEDIOIC ACID |
| | 111-50-2 | HEXANEDIOYL DICHLORIDE |
| | 142-62-1 | HEXANOIC ACID |
| | 123-66-0 | HEXANOIC ACID, ETHYL ESTER |
| | 94-04-2 | HEXANOIC ACID, 2-ETHYL-, ETHENYL ESTER |
| ES | 302-01-2 | HYDRAZINE |
| | | HYDRAZINE (ANHYDROUS) |
| E | 60-34-4 | HYDRAZINE, METHYL- |
| | 100-63-0 | HYDRAZINE, PHENYL- |
| ES | 10034-93-2 | HYDRAZINE, SULFATE (1:1) |
| ES | 57-14-7 | HYDRAZINE, 1,1-DIMETHYL- |
| ES | 1615-80-1 | HYDRAZINE, 1,2-DIETHYL- |
| ES | 540-73-8 | HYDRAZINE, 1,2-DIMETHYL- |
| ES | 122-66-7 | HYDRAZINE, 1,2-DIPHENYL- |
| S | 16568-02-8 | HYDRAZINECARBOXALDEHYDE, ETHYLIDENEMETHYL- |
| S | 3570-75-0 | HYDRAZINECARBOXALDEHYDE, 2-[4-(5-NITRO-2-FURANYL)-2-THIAZOLYL]- |
| | 10034-85-2 | HYDRIODIC ACID |
| | 10035-10-6 | HYDROBROMIC ACID |
| S | 8020-83-5 | HYDROCARBON OILS |
| E | 7647-01-0 | HYDROCHLORIC ACID |
| E | 74-90-8 | HYDROCYANIC ACID |
| E | 7664-39-3 | HYDROFLUORIC ACID |
| | 1333-74-0 | HYDROGEN |
| E | 7722-84-1 | HYDROGEN PEROXIDE (CONC > 52 PERCENT) |
| | 7722-84-1 | HYDROGEN PEROXIDE (H2O2) |
| E | 7783-07-5 | HYDROGEN SELENIDE (H2SE) |
| E | 7783-06-4 | HYDROGEN SULFIDE (H2S) |
| | 61788-32-7 | HYDROGENATED TERPHENYLS |
| E | 80-15-9 | HYDROPEROXIDE, 1-METHYL-1-PHENYLETHYL |
| | 75-91-2 | HYDROPEROXIDE, 1,1-DIMETHYLETHYL |
| E | 123-31-9 | HYDROQUINONE |
| | 7803-49-8 | HYDROXYLAMINE |
| E | 7778-54-3 | HYPOCHLOROUS ACID, CALCIUM SALT |
| E | 7681-52-9 | HYPOCHLOROUS ACID, SODIUM SALT |
| E | 10022-70-5 | HYPOCHLOROUS ACID, SODIUM SALT, PENTAHYDRATE |
| ES | 193-39-5 | INDENO[1,2,3-CD]PYRENE |
| | 7440-74-6 | INDIUM |
| E | | INORGANIC ARSENIC |
| | 7553-56-2 | IODINE |
| S | | IRON AND STEEL FOUNDING |
| E | 13463-40-6 | IRON CARBONYL (FE(CO)5), (TB-5-11)- |
| E | 7758-94-3 | IRON CHLORIDE (FECL2) |
| E | 7705-08-0 | IRON CHLORIDE (FECL3) |
| ES | 9004-66-4 | IRON DEXTRAN |
| E | 7783-50-8 | IRON FLUORIDE (FEF3) |
| | 1309-37-1 | IRON OXIDE (FE2O3) |
| E | | IRON SALTS |
| | 14484-64-1 | IRON, TRIS(DIMETHYLCARBAMODITHIOATO-S,S′)-, (OC-6-11)- |
| E | 297-78-9 | ISOBENZAN |
| E | 102-36-3 | ISOCYANIC ACID, 3,4-DICHLOROPHENYL ESTER |
| E | 465-73-6 | ISODRIN |
| E | 55-91-4 | ISOFLUORPHATE |
| | 31394-54-4 | ISOHEPTANE |
| | 26635-64-3 | ISOOCTANE |
| | 26952-21-6 | ISOOCTANOL |
| | | ISOOCTENES |
| E | 42504-46-1 | ISOPROPANOLAMINE DODECYLBENZENE SULFONATE |
| S | | ISOPROPYL ALCOHOL MANUFACTURE (STRONG-ACID PROCESS) |
| E | 108-23-6 | ISOPROPYL CHLOROFORMATE |
| E | 119-38-0 | ISOPROPYLMETHYLPYRAZOLYL DIMETHYLCARBAMATE |
| | | JET FUELS JET B |

***—ANY COMPOUND OF THIS SUBSTANCE IS ALSO AN ENVIRONMENTAL HAZARD**
**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | | JET FUELS JP-4 |
| | | JET FUELS JP-6 |
| | 1332-58-7 | KAOLIN |
| E | 115-32-2 | KELTHANE |
| | 8008-20-6 | KEROSINE (PETROLEUM) |
| ES | 148-82-3 | L-PHENYLALANINE, 4-[BIS(2-CHLOROETHYL)AMINO]- |
| ES | 115-02-6 | L-SERINE, DIAZOACETATE (ESTER) |
| | 8006-54-0 | LANOLIN |
| *E | 7439-92-1 | LEAD |
| E | | LEAD (IV) ARSONATE |
| E | 12612-47-4 | LEAD CHLORIDE |
| E | 7758-95-4 | LEAD CHLORIDE (PBCL2) |
| ES | 18454-12-1 | LEAD CHROMATE OXIDE (PB2(CRO4)O) |
| E | 7783-46-2 | LEAD FLUORIDE (PBF2) |
| E | 10101-63-0 | LEAD IODIDE (PBI2) |
| E | 52652-59-2 | LEAD STEARATE |
| E | 15739-80-7 | LEAD SULFATE |
| E | 1314-87-0 | LEAD SULFIDE (PBS) |
| ES | 1335-32-6 | LEAD, BIS(ACETATO-O)TETRAHYDROXYTRI- |
| E | 56189-09-4 | LEAD, BIS(OCTADECANOATO)DIOXODI- |
| E | 21609-90-5 | LEPTOPHOS |
| E | 541-25-3 | LEWISITE |
| | 8032-32-4 | LIGROINE |
| | 1317-65-3 | LIMESTONE |
| | 8001-26-1 | LINSEED OIL |
| | | LIQUEFIED NATURAL GAS |
| | 7439-93-2 | LITHIUM |
| | | LITHIUM DICHROMATE |
| E | 7580-67-8 | LITHIUM HYDRIDE (LIH) |
| | 108-44-1 | M-TOLUIDINE |
| | 13717-00-5 | MAGNESITE (MG(CO3)) |
| | 7439-95-4 | MAGNESIUM |
| | 1309-48-4 | MAGNESIUM OXIDE (MGO) |
| E | 109-77-3 | MALONONITRILE |
| E | 12427-38-2 | MANEB |
| *E | 7439-96-5 | MANGANESE |
| | 1317-35-7 | MANGANESE TETROXIDE |
| | 12079-65-1 | MANGANESE, TRICARBONYL(.ETA.5-2,4-CYCLOPENTADIEN-1-YL)- |
| E | 12108-13-3 | MANGANESE, TRICARBONYL[(1,2,3,4,5-.ETA.)-1-METHYL-2,4-CYCLOPENTADIEN-1-YL]- |
| S | | MANUFACTURE OF MAGENTA |
| | 59355-75-8 | MAPP |
| E | 51-75-2 | MECHLORETHAMINE |
| E | 108-78-1 | MELAMINE |
| E | 950-10-7 | MEPHOSFOLAN |
| E | 1600-27-7 | MERCURIC ACETATE |
| E | 7487-94-7 | MERCURIC CHLORIDE |
| E | 21908-53-2 | MERCURIC OXIDE |
| *E | 7439-97-6 | MERCURY |
| E | | MERCURY ALKYLS |
| E | 592-04-1 | MERCURY CYANIDE (HG(CN)2) |
| E | | MERCURY NON-ALKYL, VAPOR |
| E | 62-38-4 | MERCURY, (ACETATO-O)PHENYL- |
| E | | MERCURY, ARYL AND INORGANIC COMPOUNDS |
| | 37273-91-9 | METALDEHYDE |
| E | 7785-84-4 | METAPHOSPHORIC ACID (H3P3O9), TRISODIUM SALT |
| E | 10124-56-8 | METAPHOSPHORIC ACID (H6P6O18), HEXASODIUM SALT |
| E | 10476-95-6 | METHACROLEIN DIACETATE |
| E | 760-93-0 | METHACRYLIC ANHYDRIDE |
| E | 920-46-7 | METHACRYLOYL CHLORIDE |
| E | 30674-80-7 | METHACRYLOYLOXYETHYL ISOCYANATE |
| E | 74-89-5 | METHANAMINE |
| E | 124-40-3 | METHANAMINE, N-METHYL- |
| ES | 62-75-9 | METHANAMINE, N-METHYL-N-NITROSO- |
| E | 75-50-3 | METHANAMINE, N,N-DIMETHYL- |
| | 74-82-8 | METHANE |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**



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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| E | 74-83-9 | METHANE, BROMO- |
| | 74-97-5 | METHANE, BROMOCHLORO- |
| E | 75-27-4 | METHANE, BROMODICHLORO- |
| | 75-63-8 | METHANE, BROMOTRIFLUORO- |
| E | 74-87-3 | METHANE, CHLORO- |
| | 75-45-6 | METHANE, CHLORODIFLUORO- |
| ES | 107-30-2 | METHANE, CHLOROMETHOXY- |
| E | 334-88-3 | METHANE, DIAZO- |
| E | 74-95-3 | METHANE, DIBROMO- |
| E | 124-48-1 | METHANE, DIBROMOCHLORO- |
| | 75-61-6 | METHANE, DIBROMODIFLUORO- |
| ES | 75-09-2 | METHANE, DICHLORO- |
| E | 75-71-8 | METHANE, DICHLORODIFLUORO- |
| | 75-43-4 | METHANE, DICHLOROFLUORO- |
| | 109-87-5 | METHANE, DIMETHOXY- |
| ES | 74-88-4 | METHANE, IODO- |
| E | 624-83-9 | METHANE, ISOCYANATO- |
| | 75-52-5 | METHANE, NITRO- |
| | 115-10-6 | METHANE, OXYBIS- |
| ES | 542-88-1 | METHANE, OXYBIS[CHLORO- |
| | 558-13-4 | METHANE, TETRABROMO- |
| ES | 56-23-5 | METHANE, TETRACHLORO- |
| E | 509-14-8 | METHANE, TETRANITRO- |
| E | 75-18-3 | METHANE, THIOBIS- |
| E | 75-25-2 | METHANE, TRIBROMO- |
| ES | 67-66-3 | METHANE, TRICHLORO- |
| E | 75-69-4 | METHANE, TRICHLOROFLUORO- |
| | 76-06-2 | METHANE, TRICHLORONITRO- |
| | 75-47-8 | METHANE, TRIIODO- |
| E | 594-42-3 | METHANESULFENYL CHLORIDE, TRICHLORO- |
| ES | 62-50-0 | METHANESULFONIC ACID, ETHYL ESTER |
| ES | 66-27-3 | METHANESULFONIC ACID, METHYL ESTER |
| E | 558-25-8 | METHANESULFONYL FLUORIDE |
| E | 74-93-1 | METHANETHIOL |
| S | 55738-54-0 | METHANIMIDAMIDE, N,N-DIMETHYL-N′-[5-[2-(5-NITRO-2-FURANYL)ETHENYL]-1,3,4-OXADIAZOL-2-YL]-, (E)- |
| E | 67-56-1 | METHANOL |
| S | 590-96-5 | METHANOL, (METHYL-ONN-AZOXY)- |
| S | 592-62-1 | METHANOL, (METHYL-ONN-AZOXY)-, ACETATE (ESTER) |
| S | 794-93-4 | METHANOL, [[6-[2-(5-NITRO-2-FURANYL)ETHENYL]-1,2,4-TRIAZIN-3-YL]IMINO]BIS- |
| E | 124-41-4 | METHANOL, SODIUM SALT |
| ES | 90-94-8 | METHANONE, BIS[4-(DIMETHYLAMINO)PHENYL]- |
| S | | METHOXSALEN WITH ULTRA-VIOLET A THERAPHY |
| E | 151-38-2 | METHOXYETHYLMERCURIC ACETATE |
| E | 79-22-1 | METHYL CHLOROFORMATE |
| E | 624-92-0 | METHYL DISULFIDE |
| E | 556-61-6 | METHYL ISOTHIOCYANATE |
| E | 3735-23-7 | METHYL PHENKAPTON |
| E | 676-97-1 | METHYL PHOSPHONIC DICHLORIDE |
| E | 1634-04-4 | METHYL TERT-BUTYL ETHER |
| E | 556-64-9 | METHYL THIOCYANATE |
| E | 80-63-7 | METHYL 2-CHLOROACRYLATE |
| E | 502-39-6 | METHYLMERCURIC DICYANAMIDE |
| E | 1129-41-5 | METOLCARB |
| | 12001-26-2 | MICA-GROUP MINERALS |
| | | MINERAL OIL MIST |
| | | MINERAL WOOL FIBER |
| | 7439-98-7 | MOLYBDENUM |
| E | 1313-27-5 | MOLYBDENUM TRIOXIDE |
| | | MONO-(TRICHLORO) TETRA (MONOPOTASSIUM DICHLORO)-PENTA-S-TRIAZINE-TRIONE |
| | | MONOCHLORO-S-TRIAZINETRIONE ACID |
| | | MONOMETHYL ANILINE |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| S | | MOPP (COMBINED THERAPY WITH NITROGEN MUSTARD, VINCRISTINE, PROCARBAZINE, AND PR EDNISONE) AND OTHER COMBINED CHEMOTHERAPY INCLUDING ALKYLATING AGENTS |
| | 110-91-8 | MORPHOLINE |
| | 141-91-3 | MORPHOLINE, 2,6-DIMETHYL- |
| | 1696-20-4 | MORPHOLINE, 4-ACETYL- |
| | 100-74-3 | MORPHOLINE, 4-ETHYL- |
| | 109-02-4 | MORPHOLINE, 4-METHYL- |
| ES | 59-89-2 | MORPHOLINE, 4-NITROSO- |
| | 92-53-5 | MORPHOLINE, 4-PHENYL- |
| | | MOTOR FUEL ANTIKNOCK COMPOUNDS |
| E | 2763-96-4 | MUSCIMOL |
| | 8030-30-6 | NAPHTHA |
| | | NAPHTHA V.M.+ P., HIGH FLASH |
| | | NAPHTHA V.M.+ P., REGULAR |
| | | NAPHTHA V.M.+ P., 50 DEGREES FLASH |
| | | NAPHTHA 49 DEGREE BE-COAL TAR TYPE |
| E | 91-20-3 | NAPHTHALENE |
| | 73090-68-3 | NAPHTHALENE, (1,1-DIMETHYLETHYL)-1,2,3,4-TETRAHYDRO- |
| | 91-17-8 | NAPHTHALENE, DECAHYDRO- |
| E | 1335-87-1 | NAPHTHALENE, HEXACHLORO- |
| E | 2234-13-1 | NAPHTHALENE, OCTACHLORO- |
| | 1321-64-8 | NAPHTHALENE, PENTACHLORO- |
| | 1320-27-0 | NAPHTHALENE, PENTYL- |
| | 1335-88-2 | NAPHTHALENE, TETRACHLORO- |
| | 1321-65-9 | NAPHTHALENE, TRICHLORO- |
| | 90-12-0 | NAPHTHALENE, 1-METHYL- |
| | 119-64-2 | NAPHTHALENE, 1,2,3,4-TETRAHYDRO- |
| E | 91-58-7 | NAPHTHALENE, 2-CHLORO- |
| E | 1338-24-5 | NAPHTHENIC ACIDS |
| ES | 192-65-4 | NAPHTHO[1,2,3,4-DEF]CHRYSENE |
| | 8006-14-2 | NATURAL GAS |
| | 7440-01-9 | NEON |
| *ES | 7440-02-0 | NICKEL |
| ES | 13463-39-3 | NICKEL CARBONYL (NI(CO)4), (T-4)- |
| E | | NICKEL CATALYST |
| E | 37211-05-5 | NICKEL CHLORIDE |
| E | 7718-54-9 | NICKEL CHLORIDE (NICL2) |
| E | 557-19-7 | NICKEL CYANIDE |
| E | 11113-74-9 | NICKEL HYDROXIDE |
| E | 12054-48-7 | NICKEL HYDROXIDE |
| ES | 11099-02-8 | NICKEL OXIDE |
| ES | 1313-99-1 | NICKEL OXIDE (NIO) |
| ES | 1314-06-3 | NICKEL OXIDE (NI2O3) |
| ES | | NICKEL REFINING |
| ES | 12035-72-2 | NICKEL SULFIDE (NI3S2) |
| E | | NICKEL SULFIDE ROASTING FUME AND DUST |
| S | 1271-28-9 | NICKELOCENE |
| E | 65-30-5 | NICOTINE SULFATE |
| E | 7697-37-2 | NITRIC ACID |
| E | 6484-52-2 | NITRIC ACID AMMONIUM SALT |
| | 7757-79-1 | NITRIC ACID POTASSIUM SALT |
| E | 7761-88-8 | NITRIC ACID SILVER(1+) SALT |
| | 7631-99-4 | NITRIC ACID SODIUM SALT |
| E | 10022-31-8 | NITRIC ACID, BARIUM SALT |
| E | 13597-99-4 | NITRIC ACID, BERYLLIUM SALT |
| E | 7787-55-5 | NITRIC ACID, BERYLLIUM SALT, TRIHYDRATE |
| | 928-45-0 | NITRIC ACID, BUTYL ESTER |
| | 10141-05-6 | NITRIC ACID, COBALT(2+) SALT |
| E | 3251-23-8 | NITRIC ACID, COPPER(2+) SALT |
| | 625-58-1 | NITRIC ACID, ETHYL ESTER |
| E | 10421-48-4 | NITRIC ACID, IRON(3+) SALT |
| E | 10099-74-8 | NITRIC ACID, LEAD(2+) SALT |
| | 10377-60-3 | NITRIC ACID, MAGNESIUM SALT |
| E | 10415-75-5 | NITRIC ACID, MERCURY(1+) SALT |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**



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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| E | 7782-86-7 | NITRIC ACID, MERCURY(1+) SALT, MONOHYDRATE |
| E | 10045-94-0 | NITRIC ACID, MERCURY(2+) SALT |
| E | 14216-75-2 | NITRIC ACID, NICKEL SALT |
| E | 13138-45-9 | NITRIC ACID, NICKEL(2+) SALT |
| | 1002-16-0 | NITRIC ACID, PENTYL ESTER |
| | 627-13-4 | NITRIC ACID, PROPYL ESTER |
| | 10042-76-9 | NITRIC ACID, STRONTIUM SALT |
| | 13823-29-5 | NITRIC ACID, THORIUM(4+) SALT |
| E | 15905-86-9 | NITRIC ACID, URANIUM SALT |
| E | 7779-88-6 | NITRIC ACID, ZINC SALT |
| E | 13746-89-9 | NITRIC ACID, ZIRCONIUM(4+) SALT |
| | | NITRIC ETHER |
| | 7727-37-9 | NITROGEN |
| | 7783-54-2 | NITROGEN FLUORIDE (NF3) |
| E | 10102-43-9 | NITROGEN OXIDE (NO) |
| E | 10102-44-0 | NITROGEN OXIDE (NO2) |
| | 12033-49-7 | NITROGEN OXIDE (NO3) |
| | 10544-73-7 | NITROGEN OXIDE (N2O3) |
| E | 10544-72-6 | NITROGEN OXIDE (N2O4) |
| E | | NITROPHENOLS |
| E | | NITROSAMINES |
| | 109-95-5 | NITROUS ACID, ETHYL ESTER |
| E | 7632-00-0 | NITROUS ACID, SODIUM SALT |
| | 10024-97-2 | NITROUS OXIDE |
| | 111-84-2 | NONANE |
| | 27215-95-8 | NONENE |
| E | 991-42-4 | NORBORMIDE |
| E | 3288-58-2 | O,O-DIETHYL S-METHYL DITHIOPHOSPHATE |
| E | 7428-48-0 | OCTADECANOIC ACID, LEAD SALT |
| E | 1072-35-1 | OCTADECANOIC ACID, LEAD(2+) SALT |
| E | 557-05-1 | OCTADECANOIC ACID, ZINC SALT |
| | 111-65-9 | OCTANE |
| | 3221-61-2 | OCTANE, 2-METHYL- |
| | 2216-33-3 | OCTANE, 3-METHYL- |
| | 2216-34-4 | OCTANE, 4-METHYL- |
| | 106-32-1 | OCTANOIC ACID, ETHYL ESTER |
| | 111-64-8 | OCTANOYL CHLORIDE |
| | 8001-86-3 | OILS, BOLEKO |
| | 8008-51-3 | OILS, CAMPHOR |
| | 8016-28-2 | OILS, LARD |
| | 8007-40-7 | OILS, MUSTARD |
| | 68334-28-1 | OILS, VEGETABLE, HYDROGENATED |
| | | OLEO OIL |
| | | ORGANO(ALKYL)MERCURY |
| E | | ORGANORHODIUM COMPLEX (PMN-82-147) |
| E | 20816-12-0 | OSMIUM OXIDE (OSO4), (T-4)- |
| E | 630-60-4 | OUABAIN |
| E | 23135-22-0 | OXAMYL |
| E | 78-71-7 | OXETANE, 3,3-BIS(CHLOROMETHYL)- |
| ES | 75-21-8 | OXIRANE |
| | 2426-08-6 | OXIRANE, (BUTOXYMETHYL)- |
| ES | 106-89-8 | OXIRANE, (CHLOROMETHYL)- |
| | 122-60-1 | OXIRANE, (PHENOXYMETHYL)- |
| | 4016-14-2 | OXIRANE, [(1-METHYLETHOXY)METHYL]- |
| | 106-92-3 | OXIRANE, [(2-PROPENYLOXY)METHYL]- |
| | 930-22-3 | OXIRANE, ETHENYL- |
| E | 106-88-7 | OXIRANE, ETHYL- |
| ES | 75-56-9 | OXIRANE, METHYL- |
| E | 96-09-3 | OXIRANE, PHENYL- |
| E | 2238-07-5 | OXIRANE, 2,2′-[OXYBIS(METHYLENE)]BIS- |
| S | 765-34-4 | OXIRANECARBOXALDEHYDE |
| E | 556-52-5 | OXIRANEMETHANOL |
| E | 2497-07-6 | OXYDISULFOTON |
| | 7782-44-7 | OXYGEN |
| | 7783-41-7 | OXYGEN FLUORIDE (OF2) |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| E | 10028-15-6 | OZONE |
| | 8002-74-2 | PARAFFIN WAXES AND HYDROCARBON WAXES |
| E | 30525-89-4 | PARAFORMALDEHYDE |
| | | PARTICULATE POLYCYCLIC AROMATIC HYDROCARBONS |
| | 8002-03-7 | PEANUT OIL |
| | | PENT-ACETATE |
| E | 19624-22-7 | PENTABORANE(9) |
| E | 76-01-7 | PENTACHLOROETHANE |
| E | 2570-26-5 | PENTADECYLAMINE |
| | 110-62-3 | PENTANAL |
| | 73513-30-1 | PENTANAL, METHYL- |
| | 123-15-9 | PENTANAL, 2-METHYL- |
| | 32749-94-3 | PENTANAL, 2,3-DIMETHYL- |
| | 109-66-0 | PENTANE |
| | 110-53-2 | PENTANE, 1-BROMO- |
| | 543-59-9 | PENTANE, 1-CHLORO- |
| | 872-10-6 | PENTANE, 1,1′-THIOBIS- |
| | 628-76-2 | PENTANE, 1,5-DICHLORO- |
| | 107-83-5 | PENTANE, 2-METHYL- |
| | 564-02-3 | PENTANE, 2,2,3-TRIMETHYL- |
| | 7154-79-2 | PENTANE, 2,2,3,3-TETRAMETHYL- |
| | 1186-53-4 | PENTANE, 2,2,3,4-TETRAMETHYL- |
| | 540-84-1 | PENTANE, 2,2,4-TRIMETHYL- |
| | 565-59-3 | PENTANE, 2,3-DIMETHYL- |
| | 560-21-4 | PENTANE, 2,3,3-TRIMETHYL- |
| | 108-08-7 | PENTANE, 2,4-DIMETHYL- |
| | 609-26-7 | PENTANE, 3-ETHYL-2-METHYL- |
| | 1068-87-7 | PENTANE, 3-ETHYL-3,4-DIMETHYL- |
| | 96-14-0 | PENTANE, 3-METHYL- |
| | 760-21-4 | PENTANE, 3-METHYLENE- |
| | 1067-20-5 | PENTANE, 3,3-DIETHYL- |
| | 111-30-8 | PENTANEDIAL |
| | 109-52-4 | PENTANOIC ACID |
| | 25167-70-8 | PENTENE, 2,4,4-TRIMETHYL- |
| | | PERACETIC ACID DILUTED WITH 60 OF ACETIC ACID |
| | 7601-90-3 | PERCHLORIC ACID |
| | 7790-98-9 | PERCHLORIC ACID, AMMONIUM SALT |
| | 10034-81-8 | PERCHLORIC ACID, MAGNESIUM SALT |
| | 7778-74-7 | PERCHLORIC ACID, POTASSIUM SALT |
| | 7601-89-0 | PERCHLORIC ACID, SODIUM SALT |
| | 7616-94-6 | PERCHLORYL FLUORIDE |
| | | PERLITE DUST |
| | 13446-10-1 | PERMANGANIC ACID (HMNO4), AMMONIUM SALT |
| E | 7722-64-7 | PERMANGANIC ACID (HMNO4), POTASSIUM SALT |
| | 105-74-8 | PEROXIDE, BIS(1-OXODODECYL) |
| | 110-05-4 | PEROXIDE, BIS(1,1-DIMETHYLETHYL) |
| | 110-22-5 | PEROXIDE, DIACETYL |
| E | 94-36-0 | PEROXIDE, DIBENZOYL |
| | 628-37-5 | PEROXIDE, DIETHYL |
| | 105-64-6 | PEROXYDICARBONIC ACID, BIS(1-METHYLETHYL) ESTER |
| | 7727-21-1 | PEROXYDISULFURIC ACID ([(HO)S(O)2]2O2), DIPOTASSIUM SALT |
| | 8002-05-9 | PETROLEUM |
| | | PETROLEUM DISTILLATES |
| | 68476-85-7 | PETROLEUM GASES, LIQUEFIED |
| E | 85-01-8 | PHENANTHRENE |
| E | 108-95-2 | PHENOL |
| | 1333-13-7 | PHENOL, (1,1-DIMETHYLETHYL)-3-METHYL- |
| S | 53894-28-3 | PHENOL, [[(2-AMINOETHYL)AMINO]METHYL]- |
| | 73090-69-4 | PHENOL, CHLORO-4-(1,1-DIMETHYLPROPYL)- |
| E | 1300-71-6 | PHENOL, DIMETHYL- |
| E | 25550-58-7 | PHENOL, DINITRO- |
| E | 1319-77-3 | PHENOL, METHYL- |
| E | 25154-55-6 | PHENOL, NITRO- |
| | 25154-52-3 | PHENOL, NONYL- |
| E | 87-86-5 | PHENOL, PENTACHLORO- |

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**S—SPECIAL HAZARDOUS SUBSTANCE**



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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| E | 25167-82-2 | PHENOL, TRICHLORO- |
| E | 114-26-1 | PHENOL, 2-(1-METHYLETHOXY)-, METHYLCARBAMATE |
| | 89-72-5 | PHENOL, 2-(1-METHYLPROPYL)- |
| E | 95-57-8 | PHENOL, 2-CHLORO- |
| | 98-28-2 | PHENOL, 2-CHLORO-4-(1,1-DIMETHYLETHYL)- |
| | 42350-99-2 | PHENOL, 2-CHLORO-4,6-BIS(1,1-DIMETHYLPROPYL)- |
| | 119-42-6 | PHENOL, 2-CYCLOHEXYL- |
| E | 95-48-7 | PHENOL, 2-METHYL- |
| E | 534-52-1 | PHENOL, 2-METHYL-4,6-DINITRO- |
| E | 88-75-5 | PHENOL, 2-NITRO- |
| | 136-81-2 | PHENOL, 2-PENTYL- |
| E | 4418-66-0 | PHENOL, 2,2′-THIOBIS(4-CHLORO-6-METHYL)- |
| E | 15950-66-0 | PHENOL, 2,3,4-TRICHLORO- |
| E | 933-78-8 | PHENOL, 2,3,5-TRICHLORO- |
| E | 933-75-5 | PHENOL, 2,3,6-TRICHLORO- |
| E | 120-83-2 | PHENOL, 2,4-DICHLORO- |
| E | 105-67-9 | PHENOL, 2,4-DIMETHYL- |
| E | 51-28-5 | PHENOL, 2,4-DINITRO- |
| | 138-00-1 | PHENOL, 2,4-DIPENTYL- |
| E | 95-95-4 | PHENOL, 2,4,5-TRICHLORO- |
| ES | 88-06-2 | PHENOL, 2,4,6-TRICHLORO- |
| E | 88-89-1 | PHENOL, 2,4,6-TRINITRO- |
| E | 329-71-5 | PHENOL, 2,5-DINITRO- |
| | 128-37-0 | PHENOL, 2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYL- |
| E | 573-56-8 | PHENOL, 2,6-DINITRO- |
| E | 64-00-6 | PHENOL, 3-(1-METHYLETHYL)-, METHYLCARBAMATE |
| E | 108-39-4 | PHENOL, 3-METHYL- |
| E | 554-84-7 | PHENOL, 3-NITRO- |
| E | 609-19-8 | PHENOL, 3,4,5-TRICHLORO- |
| E | 2032-65-7 | PHENOL, 3,5-DIMETHYL-4-(METHYLTHIO)-, METHYLCARBAMATE |
| E | 315-18-4 | PHENOL, 4-(DIMETHYLAMINO)-3,5-DIMETHYL-, METHYLCARBAMATE (ESTER) |
| | 98-27-1 | PHENOL, 4-(1,1-DIMETHYLETHYL)-2-METHYL- |
| | 80-46-6 | PHENOL, 4-(1,1-DIMETHYLPROPYL)- |
| | 106-48-9 | PHENOL, 4-CHLORO- |
| E | 59-50-7 | PHENOL, 4-CHLORO-3-METHYL- |
| | 123-07-9 | PHENOL, 4-ETHYL- |
| | 150-76-5 | PHENOL, 4-METHOXY- |
| E | 106-44-5 | PHENOL, 4-METHYL- |
| E | 100-02-7 | PHENOL, 4-NITRO- |
| ES | 56-53-1 | PHENOL, 4,4′-(1,2-DIETHYL-1,2-ETHENEDIYL)BIS-, (E)- |
| | 96-69-5 | PHENOL, 4,4′-THIOBIS[2-(1,1-DIMETHYLETHYL)-5-METHYL- |
| E | 97-18-7 | PHENOL,2,2′-THIOBIS(4,6-DICHLORO- |
| E | 58-90-2 | PHENOL,2,3,4,6-TETRACHLORO- |
| E | 58-36-6 | PHENOXARSINE, 10,10′-OXYDI- |
| S | | PHENOXYACETIC ACID HERBICIDES |
| E | 696-28-6 | PHENYL DICHLOROARSINE |
| | | PHENYL ETHER-BIPHENYL MIXTURE |
| E | 59-88-1 | PHENYLHYDRAZINE HYDROCHLORIDE |
| E | 2097-19-0 | PHENYLSILATRANE |
| E | 103-85-5 | PHENYLTHIOUREA |
| E | 947-02-4 | PHOSFOLAN |
| E | 732-11-6 | PHOSMET |
| E | 7803-51-2 | PHOSPHINE |
| | 638-21-1 | PHOSPHINE, PHENYL- |
| E | 52-68-6 | PHOSPHONIC ACID, (2,2,2-TRICHLORO-1-HYDROXYETHYL)-, DIMETHYL ESTER |
| | 1809-19-4 | PHOSPHONIC ACID, DIBUTYL ESTER |
| E | 944-22-9 | PHOSPHONODITHIOIC ACID, ETHYL-, O-ETHYL S-PHENYL ESTER |
| E | 2703-13-1 | PHOSPHONOTHIOIC ACID, METHYL-, O-ETHYL O-(4-(METHYLTHIO)PHENYL)ESTER |
| E | 2665-30-7 | PHOSPHONOTHIOIC ACID, METHYL-,O-(4-NITROPHENYL)O-PHENYL ESTER |
| E | 50782-69-9 | PHOSPHONOTHIOIC ACID, METHYL-,S-(2-(BIS(1-METHYLETHYL)AMINO)ETHYL) O-ETHYL ESTER |
| E | 2104-64-5 | PHOSPHONOTHIOIC ACID, PHENYL-, O-ETHYL O-(4-NITROPHENYL) ESTER |
| E | 22224-92-6 | PHOSPHORAMIDIC ACID, (1-METHYLETHYL)-, ETHYL 3-METHYL-4-(METHYLTHIO)PHENYL ESTER |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 299-86-5 | PHOSPHORAMIDIC ACID, METHYL-, 2-CHLORO-4-(1,1-DIMETHYLETHYL)PHENYL METHYL ESTER |
| E | 4104-14-7 | PHOSPHORAMIDOTHIOIC ACID, (1-IMINOETHYL)-, O,O-BIS(4-CHLOROPHENYL) ESTER |
| E | 10265-92-6 | PHOSPHORAMIDOTHIOIC ACID, O,S-DIMETHYL ESTER |
| E | 10026-13-8 | PHOSPHORANE, PENTACHLORO- |
| E | 7664-38-2 | PHOSPHORIC ACID |
| | 126-73-8 | PHOSPHORIC ACID TRIBUTYL ESTER |
| ES | 35089-00-0 | PHOSPHORIC ACID, BERYLLIUM SALT |
| ES | 13598-15-7 | PHOSPHORIC ACID, BERYLLIUM SALT (1:1) |
| ES | 13598-26-0 | PHOSPHORIC ACID, BERYLLIUM SALT (2:3) |
| | 107-66-4 | PHOSPHORIC ACID, DIBUTYL ESTER |
| E | 6923-22-4 | PHOSPHORIC ACID, DIMETHYL 1-METHYL-3-(METHYLAMINO)-3-OXO-1-PROPENYL ESTER, (E)- |
| E | 3254-63-5 | PHOSPHORIC ACID, DIMETHYL 4-(METHYLTHIO) PHENYL ESTER |
| E | 7558-79-4 | PHOSPHORIC ACID, DISODIUM SALT |
| E | 10039-32-4 | PHOSPHORIC ACID, DISODIUM SALT, DODECAHYDRATE |
| E | 10140-65-5 | PHOSPHORIC ACID, DISODIUM SALT, HYDRATE |
| ES | 7446-27-7 | PHOSPHORIC ACID, LEAD(2+) SALT (2:3) |
| | 18351-85-4 | PHOSPHORIC ACID, MONO(2-METHYLPHENYL) ESTER |
| | 115-86-6 | PHOSPHORIC ACID, TRIPHENYL ESTER |
| | 78-30-8 | PHOSPHORIC ACID, TRIS(2-METHYLPHENYL) ESTER |
| E | 7601-54-9 | PHOSPHORIC ACID, TRISODIUM SALT |
| E | 10361-89-4 | PHOSPHORIC ACID, TRISODIUM SALT, DECAHYDRATE |
| E | 10101-89-0 | PHOSPHORIC ACID, TRISODIUM SALT, DODECAHYDRATE |
| E | 300-76-5 | PHOSPHORIC ACID, 1,2-DIBROMO-2,2-DICHLOROETHYL DIMETHYL ESTER |
| E | 470-90-6 | PHOSPHORIC ACID, 2-CHLORO-1-(2,4-DICHLOROPHENYL)ETHENYL DIETHYL ESTER |
| E | 13171-21-6 | PHOSPHORIC ACID, 2-CHLORO-3-(DIETHYLAMINO)-1-METHYL-3-OXO-1-PROPENYL DIMETHYL ESTER |
| E | 62-73-7 | PHOSPHORIC ACID, 2,2-DICHLOROETHENYL DIMETHYL ESTER |
| E | 141-66-2 | PHOSPHORIC ACID, 3-(DIMETHYLAMINO)-1-METHYL-3-OXO-1-PROPENYL DIMETHYL ESTER, (E)- |
| ES | 680-31-9 | PHOSPHORIC TRIAMIDE, HEXAMETHYL- |
| | 35400-43-2 | PHOSPHORODITHIOIC ACID, O-ETHYL O-[4-(METHYLTHIO)PHENYL] S-PROPYL ESTER |
| E | 13194-48-4 | PHOSPHORODITHIOIC ACID, O-ETHYL S,S-DIPROPYL ESTER |
| E | 298-02-2 | PHOSPHORODITHIOIC ACID, O,O-DIETHYL S-[(ETHYLTHIO)METHYL] ESTER |
| E | 298-04-4 | PHOSPHORODITHIOIC ACID, O,O-DIETHYL S-[2-(ETHYLTHIO)ETHYL] ESTER |
| E | 86-50-0 | PHOSPHORODITHIOIC ACID, O,O-DIMETHYL S-[(4-OXO-1,2,3-BENZOTRIAZIN-3(4H)-YL)METHYL] ESTER |
| E | 950-37-8 | PHOSPHORODITHIOIC ACID, S-[(5-METHOXY-2-OXO-1,3,4-THIADIAZOL-3(2H)-YL)METHYL] O,O-DIMETHYL ESTER |
| E | 563-12-2 | PHOSPHORODITHIOIC ACID, S,S′-METHYLENE O,O,O′,O′-TETRAETHYL ESTER |
| E | 78-34-2 | PHOSPHORODITHIOIC ACID, S,S′-1,4-DIOXANE-2,3-DIYL O,O,O′,O′-TETRAETHYL ESTER |
| E | 56-72-4 | PHOSPHOROTHIOIC ACID, O-(3-CHLORO-4-METHYL-2-OXO-2H-1-BENZOPYRAN-7-YL) O,O-DIETHYL ESTER |
| | 8022-00-2 | PHOSPHOROTHIOIC ACID, O-[2-(ETHYLTHIO)ETHYL] O,O-DIMETHYL ESTER, MIXT. WITH S-[2-(ETHYLTHIO)ETHYL] O,O-DIMETHYL PHOSPHOROTHIOATE |
| E | 2921-88-2 | PHOSPHOROTHIOIC ACID, O,O-DIETHYL O-(3,5,6-TRICHLORO-2-PYRIDINYL) ESTER |
| E | 56-38-2 | PHOSPHOROTHIOIC ACID, O,O-DIETHYL O-(4-NITROPHENYL) ESTER |
| E | 8065-48-3 | PHOSPHOROTHIOIC ACID, O,O-DIETHYL O-[2-(ETHYLTHIO)ETHYL] ESTER, MIXT. WITH O,O-DIETHYL S-[2-(ETHYLTHIO)ETHYL] PHOSPHOROTHIOATE |
| E | 115-90-2 | PHOSPHOROTHIOIC ACID, O,O-DIETHYL O-[4-(METHYLSULFINYL)PHENYL] ESTER |
| E | 333-41-5 | PHOSPHOROTHIOIC ACID, O,O-DIETHYL O-[6-METHYL-2-(1-METHYLETHYL)-4-PYRIMIDINYL] ESTER |
| | 299-84-3 | PHOSPHOROTHIOIC ACID, O,O-DIMETHYL O-(2,4,5-TRICHLOROPHENYL) ESTER |
| E | 298-00-0 | PHOSPHOROTHIOIC ACID, O,O-DIMETHYL O-(4-NITROPHENYL) ESTER |
| | 55-38-9 | PHOSPHOROTHIOIC ACID, O,O-DIMETHYL O-[3-METHYL-4-(METHYLTHIO)PHENYL] ESTER |
| E | 2587-90-8 | PHOSPHOROTHIOIC ACID, O,O-DIMETHYL-S-(2-METHYLTHIO)ETHYL ESTER |
| | 3383-96-8 | PHOSPHOROTHIOIC ACID, O,O′-(THIODI-4,1-PHENYLENE) O,O,O′,O′-TETRAMETHYL ESTER |
| | 109-47-7 | PHOSPHOROUS ACID, DIBUTYL ESTER |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**



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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 102-85-2 | PHOSPHOROUS ACID, TRIBUTYL ESTER |
| | 121-45-9 | PHOSPHOROUS ACID, TRIMETHYL ESTER |
| E | 7719-12-2 | PHOSPHOROUS TRICHLORIDE |
| E | 7723-14-0 | PHOSPHORUS |
| E | 1314-56-3 | PHOSPHORUS PENTOXIDE |
| E | 1314-80-3 | PHOSPHORUS SULFIDE (P2S5) |
| | 1314-85-8 | PHOSPHORUS SULFIDE (P4S3) |
| E | 10025-87-3 | PHOSPHORYL CHLORIDE |
| E | | PHTHALATE ESTERS |
| E | 57-47-6 | PHYSOSTIGMINE |
| E | 57-64-7 | PHYSOSTIGMINE, SALICYLATE (1:1) |
| E | 124-87-8 | PICROTOXIN |
| | | PINE TAR OIL |
| | 110-85-0 | PIPERAZINE |
| | 142-64-3 | PIPERAZINE, DIHYDROCHLORIDE |
| | 109-01-3 | PIPERAZINE, 1-METHYL- |
| E | 110-89-4 | PIPERIDINE |
| ES | 100-75-4 | PIPERIDINE, 1-NITROSO- |
| | 104-89-2 | PIPERIDINE, 5-ETHYL-2-METHYL- |
| E | 5281-13-0 | PIPROTAL |
| E | 23505-41-1 | PIRIMIFOS-ETHYL |
| | 26499-65-0 | PLASTER OF PARIS |
| | 7440-06-4 | PLATINUM |
| | | PLATINUM SOLUBLE SALTS |
| S | 15663-27-1 | PLATINUM, DIAMMINEDICHLORO-, (SP-4-2)- |
| E | 78-00-2 | PLUMBANE, TETRAETHYL- |
| E | 75-74-1 | PLUMBANE, TETRAMETHYL- |
| | 9002-81-7 | POLY(OXYMETHYLENE) |
| | 9015-98-9 | POLY(OXYMETHYLENE), .ALPHA.-HYDRO-.OMEGA.-HYDROXY- |
| E | 53467-11-1 | POLY[OXY(METHYL-1,2-ETHANEDIYL)], .ALPHA.-[(2,4-DICHLOROPHENOXY)ACETYL]-.OMEGA.-BUTOXY- |
| E | | POLYBROMINATED BIPHENYLS (PBBS) |
| | | POLYCHLOROBIPHENYLS |
| E | | POLYNUCLEAR AROMATIC HYDROCARBONS |
| | 7440-09-7 | POTASSIUM |
| | 11135-81-2 | POTASSIUM ALLOY, NONBASE, K,NA |
| E | 151-50-8 | POTASSIUM CYANIDE (K(CN)) |
| E | 1310-58-3 | POTASSIUM HYDROXIDE (K(OH)) |
| | 17014-71-0 | POTASSIUM PEROXIDE (K2(O2)) |
| E | 506-61-6 | POTASSIUM SILVER CYANIDE |
| | 37248-34-3 | POTASSIUM SULFIDE |
| | 1312-73-8 | POTASSIUM SULFIDE (K2S) |
| | | PRECIPITATED SILICA |
| S | 57-83-0 | PREGN-4-ENE-3,20-DIONE |
| E | 2631-37-0 | PROMECARB |
| E | 123-38-6 | PROPANAL |
| E | 78-84-2 | PROPANAL, 2-METHYL- |
| E | 116-06-3 | PROPANAL, 2-METHYL-2-(METHYLTHIO)-, O-[(METHYLAMINO)CARBONYL]OXIME |
| | 2806-85-1 | PROPANAL, 3-ETHOXY- |
| | 74-98-6 | PROPANE |
| | 109-53-5 | PROPANE, 1-(ETHENYLOXY)-2-METHYL- |
| | 106-94-5 | PROPANE, 1-BROMO- |
| | 540-54-5 | PROPANE, 1-CHLORO- |
| | 600-25-9 | PROPANE, 1-CHLORO-1-NITRO- |
| | 513-36-0 | PROPANE, 1-CHLORO-2-METHYL- |
| | 628-32-0 | PROPANE, 1-ETHOXY- |
| | 557-17-5 | PROPANE, 1-METHOXY- |
| | 108-03-2 | PROPANE, 1-NITRO- |
| E | 78-99-9 | PROPANE, 1,1-DICHLORO- |
| | 595-44-8 | PROPANE, 1,1-DICHLORO-1-NITRO- |
| | 111-43-3 | PROPANE, 1,1′-OXYBIS- |
| ES | 96-12-8 | PROPANE, 1,2-DIBROMO-3-CHLORO- |
| E | 78-87-5 | PROPANE, 1,2-DICHLORO- |
| E | 96-18-4 | PROPANE, 1,2,3-TRICHLORO- |
| E | 142-28-9 | PROPANE, 1,3-DICHLORO- |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 926-65-8 | PROPANE, 2-(ETHENYLOXY)- |
| | 75-29-6 | PROPANE, 2-CHLORO- |
| | 507-20-0 | PROPANE, 2-CHLORO-2-METHYL- |
| | 594-71-8 | PROPANE, 2-CHLORO-2-NITRO- |
| | 75-28-5 | PROPANE, 2-METHYL- |
| ES | 79-46-9 | PROPANE, 2-NITRO- |
| | 463-82-1 | PROPANE, 2,2-DIMETHYL- |
| | 108-20-3 | PROPANE, 2,2′-OXYBIS- |
| | 63283-80-7 | PROPANE, 2,2′-OXYBIS[DICHLORO- |
| E | 39638-32-9 | PROPANE, 2,2′-OXYBIS[2-CHLORO- |
| | 2698-41-1 | PROPANEDINITRILE, [(2-CHLOROPHENYL)METHYLENE]- |
| E | 107-12-0 | PROPANENITRILE |
| E | 78-97-7 | PROPANENITRILE, 2-HYDROXY- |
| E | 75-86-5 | PROPANENITRILE, 2-HYDROXY-2-METHYL- |
| E | 78-82-0 | PROPANENITRILE, 2-METHYL- |
| | 78-67-1 | PROPANENITRILE, 2,2′-AZOBIS[2-METHYL- |
| | 702-03-4 | PROPANENITRILE, 3-(CYCLOHEXYLAMINO)- |
| | 109-78-4 | PROPANENITRILE, 3-HYDROXY- |
| | 110-67-8 | PROPANENITRILE, 3-METHOXY- |
| | 927-07-1 | PROPANEPEROXOIC ACID, 2,2-DIMETHYL-, 1,1-DIMETHYLETHYL ESTER |
| E | 79-09-4 | PROPANOIC ACID |
| E | 123-62-6 | PROPANOIC ACID, ANHYDRIDE |
| | 590-01-2 | PROPANOIC ACID, BUTYL ESTER |
| | 105-38-4 | PROPANOIC ACID, ETHENYL ESTER |
| | 105-37-3 | PROPANOIC ACID, ETHYL ESTER |
| | 554-12-1 | PROPANOIC ACID, METHYL ESTER |
| | 106-36-5 | PROPANOIC ACID, PROPYL ESTER |
| E | 93-72-1 | PROPANOIC ACID, 2-(2,4,5-TRICHLOROPHENOXY)- |
| E | 32534-95-5 | PROPANOIC ACID, 2-(2,4,5-TRICHLOROPHENOXY)-, ISOOCTYL ESTER |
| | 138-22-7 | PROPANOIC ACID, 2-HYDROXY-, BUTYL ESTER |
| | 97-64-3 | PROPANOIC ACID, 2-HYDROXY-, ETHYL ESTER |
| | 617-51-6 | PROPANOIC ACID, 2-HYDROXY-, 1-METHYLETHYL ESTER |
| E | 79-31-2 | PROPANOIC ACID, 2-METHYL- |
| | 97-62-1 | PROPANOIC ACID, 2-METHYL-, ETHYL ESTER |
| S | 3771-19-5 | PROPANOIC ACID, 2-METHYL-2-[4-(1,2,3,4-TETRAHYDRO-1-NAPHTHALENYL)PHENOX Y]- |
| E | 75-99-0 | PROPANOIC ACID, 2,2-DICHLORO- |
| | 10213-74-8 | PROPANOIC ACID, 3-(2-ETHYLBUTOXY)- |
| | 4324-38-3 | PROPANOIC ACID, 3-ETHOXY- |
| | 34590-94-8 | PROPANOL, (2-METHOXYMETHYLETHOXY)- |
| | 25265-71-8 | PROPANOL, OXYBIS- |
| | 79-03-8 | PROPANOYL CHLORIDE |
| E | 542-76-7 | PROPIONITRILE, 3-CHLORO- |
| E | 70-69-9 | PROPIOPHENONE, 4′-AMINO- |
| E | 109-61-5 | PROPYL CHLOROFORMATE |
| | | PROPYLENE GLYCOL MONOACRYLATE |
| E | 2275-18-5 | PROTHOATE |
| E | 95-63-6 | PSEUDOCUMENE |
| E | 109-08-0 | PYRAZINE, METHYL- |
| E | 129-00-0 | PYRENE |
| E | 8003-34-7 | PYRETHRINS AND PYRETHROIDS |
| E | 110-86-1 | PYRIDINE |
| | 1929-82-4 | PYRIDINE, 2-CHLORO-6-(TRICHLOROMETHYL)- |
| | 5408-74-2 | PYRIDINE, 2-ETHENYL-5-ETHYL- |
| E | 109-06-8 | PYRIDINE, 2-METHYL- |
| E | 54-11-5 | PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-, (S)- |
| ES | 16543-55-8 | PYRIDINE, 3-(1-NITROSO-2-PYRROLIDINYL)-, (S)- |
| | 108-89-4 | PYRIDINE, 4-METHYL- |
| E | 1124-33-0 | PYRIDINE, 4-NITRO-, 1-OXIDE |
| | 104-90-5 | PYRIDINE, 5-ETHYL-2-METHYL- |
| E | 140-76-1 | PYRIDINE,2-METHYL-5-VINYL- |
| E | 504-24-5 | PYRIDINE,4-AMINO- |
| E | 53558-25-1 | PYRIMINIL |
| | | PYROXYLIN SOLUTION |

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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 123-75-1 | PYRROLIDINE |
| | 120-94-5 | PYRROLIDINE, 1-METHYL- |
| ES | 930-55-2 | PYRROLIDINE, 1-NITROSO- |
| | 14808-60-7 | QUARTZ (SIO2) |
| | | QUARTZ DUST |
| | | QUENCHING OIL |
| E | 91-22-5 | QUINOLINE |
| E | 56-57-5 | QUINOLINE, 4-NITRO-, 1-OXIDE |
| E | | RADIONUCLIDES |
| | 7440-16-6 | RHODIUM |
| | | RHODIUM FUME |
| | | ROSIN CORE SOLDER PYROLYSIS PRODUCTS |
| S | | RUBBER INDUSTRY (MANUFACTURE) |
| | | RUBBER SOLVENT |
| | 1317-80-2 | RUTILE (TIO2) |
| E | 14167-18-1 | SALCOMINE |
| E | 107-44-8 | SARIN |
| E | 513-49-5 | SEC-BUTYLAMINE |
| | 108-84-9 | SEC-HEXYL ACETATE |
| | 41444-43-3 | SEC-PENTANAMINE |
| E | 10102-18-8 | SELENIOUS ACID, DISODIUM SALT |
| *E | 7782-49-2 | SELENIUM |
| E | 7488-56-4 | SELENIUM DISULFIDE |
| | 7783-79-1 | SELENIUM FLUORIDE (SEF6), (OC-6-11)- |
| E | 7446-08-4 | SELENIUM OXIDE (SEO2) |
| E | 7791-23-3 | SELENIUM OXYCHLORIDE |
| ES | 56093-45-9 | SELENIUM SULFIDE |
| ES | 7446-34-6 | SELENIUM SULFIDE (SES) |
| E | 7783-00-8 | SELENOUS ACID |
| E | 563-41-7 | SEMICARBAZIDE HYDROCHLORIDE |
| S | | SHALE OILS |
| S | | SHALE OILS (CRUDE DISTILLATION FRACTIONS) |
| S | | SHALE OILS (FRACTIONS OF HIGH TEMPERATURE) |
| S | | SHALE OILS (HIGH TEMPERATURE CRUDE) |
| S | | SHALE OILS (LOW TEMPERATURE CRUDE) |
| | 7803-62-5 | SILANE |
| E | 3037-72-7 | SILANE, (4-AMINOBUTYL)DIETHOXYMETHYL- |
| | 7521-80-4 | SILANE, BUTYLTRICHLORO- |
| | 1609-19-4 | SILANE, CHLORODIETHYL- |
| E | 75-77-4 | SILANE, CHLOROTRIMETHYL- |
| E | 75-78-5 | SILANE, DICHLORODIMETHYL- |
| | 80-10-4 | SILANE, DICHLORODIPHENYL- |
| | 1789-58-8 | SILANE, DICHLOROETHYL- |
| | 75-54-7 | SILANE, DICHLOROMETHYL- |
| | 10025-78-2 | SILANE, TRICHLORO- |
| | 107-37-9 | SILANE, TRICHLORO-2-PROPENYL- |
| | 98-12-4 | SILANE, TRICHLOROCYCLOHEXYL- |
| | 75-94-5 | SILANE, TRICHLOROETHENYL- |
| E | 115-21-9 | SILANE, TRICHLOROETHYL- |
| | 5894-60-0 | SILANE, TRICHLOROHEXADECYL- |
| E | 75-79-6 | SILANE, TRICHLOROMETHYL- |
| | 112-04-9 | SILANE, TRICHLOROOCTADECYL- |
| | 107-72-2 | SILANE, TRICHLOROPENTYL- |
| E | 98-13-5 | SILANE, TRICHLOROPHENYL- |
| | 141-57-1 | SILANE, TRICHLOROPROPYL- |
| | 7631-86-9 | SILICA |
| | 68855-54-9 | SILICA AMORPHOUS DIATOMACEOUS EARTH (UNCALCINED) |
| | | SILICA GEL |
| E | 16919-19-0 | SILICATE(2-), HEXAFLUORO-, DIAMMONIUM |
| E | 16871-71-9 | SILICATE(2-), HEXAFLUORO-, ZINC (1:1) |
| ES | 15191-85-2 | SILICIC ACID (H4SIO4), BERYLLIUM SALT (1:2) |
| | 78-10-4 | SILICIC ACID (H4SIO4), TETRAETHYL ESTER |
| | 681-84-5 | SILICIC ACID (H4SIO4), TETRAMETHYL ESTER |
| S | 75364-04-4 | SILICIC ACID (H6SI2O7), COBALT(2+) MAGNESIUM SALT (1:2:1) |
| | 2157-42-8 | SILICIC ACID (H6SI2O7), HEXAETHYL ESTER |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 4521-94-2 | SILICIC ACID (H8SI3O10), OCTAETHYL ESTER |
| | 4421-95-8 | SILICIC ACID (H8SI3O10), OCTAMETHYL ESTER |
| ES | 58500-38-2 | SILICIC ACID, BERYLLIUM SALT |
| ES | 39413-47-3 | SILICIC ACID, BERYLLIUM ZINC SALT |
| | 1344-95-2 | SILICIC ACID, CALCIUM SALT |
| | 11099-06-2 | SILICIC ACID, ETHYL ESTER |
| | 12002-26-5 | SILICIC ACID, METHYL ESTER |
| | 7440-21-3 | SILICON |
| | 409-21-2 | SILICON CARBIDE (SIC) |
| | 12327-32-1 | SILICON CARBIDE (SI2C3) |
| *E | 7440-22-4 | SILVER |
| E | 506-64-9 | SILVER CYANIDE |
| | | SOAPSTONE DUST |
| E | 7440-23-5 | SODIUM |
| E | 7784-46-5 | SODIUM ARSENITE |
| E | 26628-22-8 | SODIUM AZIDE (NA(N3)) |
| E | 124-65-2 | SODIUM CACODYLATE |
| E | 143-33-9 | SODIUM CYANIDE (NA(CN)) |
| E | 1333-83-1 | SODIUM FLUORIDE (NA(HF2)) |
| E | 7681-49-4 | SODIUM FLUORIDE (NAF) |
| | 7646-69-7 | SODIUM HYDRIDE (NAH) |
| E | 1310-73-2 | SODIUM HYDROXIDE (NA(OH)) |
| E | 131-52-2 | SODIUM PENTACHLOROPHENATE |
| | 1313-60-6 | SODIUM PEROXIDE (NA2(O2)) |
| S | | SODIUM SALT OF PHENYTOIN |
| E | 13410-01-0 | SODIUM SELENATE |
| E | 7782-82-3 | SODIUM SELENITE |
| E | 7757-82-6 | SODIUM SULFATE (SOLUTION) |
| E | 16721-80-5 | SODIUM SULFIDE (NA(SH)) |
| E | 10102-20-2 | SODIUM TELLURITE |
| | | SODIUM-POTASSIUM ALLOYS |
| S | | SOLVENT (BENZENE) EXTRACTS OF MOST CARBON BLACKS |
| S | | SOOT |
| S | | SOOT (SHALE OIL SOOT EXTRACTS) |
| S | | SOOTS (COAL SOOT EXTRACTS) |
| S | | SOOTS, TARS AND OILS |
| S | | SOOTS, TARS, AND MINERAL OILS |
| | 8001-22-7 | SOYBEAN OIL |
| | | SPERM OIL NO. 2 |
| E | 900-95-8 | STANNANE, ACETOXYTRIPHENYL- |
| | 7646-78-8 | STANNANE, TETRACHLORO- |
| | 594-27-4 | STANNANE, TETRAMETHYL- |
| | 595-90-4 | STANNANE, TETRAPHENYL- |
| | 13121-70-5 | STANNANE, TRICYCLOHEXYLHYDROXY- |
| | 9005-25-8 | STARCH |
| | 7803-52-3 | STIBINE |
| E | 7789-61-9 | STIBINE, TRIBROMO- |
| E | 10025-91-9 | STIBINE, TRICHLORO- |
| E | 7783-56-4 | STIBINE, TRIFLUORO- |
| | 8052-41-3 | STODDARD SOLVENT |
| | | STRONTIUM DICHROMATE |
| | 1314-18-7 | STRONTIUM PEROXIDE (SR(O2)) |
| E | 57-24-9 | STRYCHNIDIN-10-ONE |
| E | 60-41-3 | STRYCHNINE, SULFATE |
| | 1395-21-7 | SUBTILISINS (PROTEOLYTIC ENZYMES AS 100 PERCENT PURE CRYSTALLINE ENZYME) |
| E | 14017-41-5 | SULFAMIC ACID, COBALT(2+) SALT (2:1) |
| E | 7773-06-0 | SULFAMIC ACID, MONOAMMONIUM SALT |
| E | 3569-57-1 | SULFOXIDE, 3-CHLOROPROPYL OCTYL |
| | 7704-34-9 | SULFUR |
| E | 12771-08-3 | SULFUR CHLORIDE |
| | 10545-99-0 | SULFUR CHLORIDE (SCL2) |
| | 10025-67-9 | SULFUR CHLORIDE (S2CL2) |
| E | 7446-09-5 | SULFUR DIOXIDE |
| E | 7783-60-0 | SULFUR FLUORIDE (SF4), (T-4)- |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**



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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 10546-01-7 | SULFUR FLUORIDE (SF5) |
| | 2551-62-4 | SULFUR FLUORIDE (SF6), (OC-6-11)- |
| E | 7446-11-9 | SULFUR TRIOXIDE |
| E | 8014-95-7 | SULFURIC ACID |
| E | 7664-93-9 | SULFURIC ACID |
| E | 7758-98-7 | SULFURIC ACID COPPER(2+) SALT (1:1) |
| E | 7783-20-2 | SULFURIC ACID DIAMMONIUM SALT |
| E | 10043-01-3 | SULFURIC ACID, ALUMINUM SALT (3:2) |
| E | 10045-89-3 | SULFURIC ACID, AMMONIUM IRON(2+) SALT (2:2:1) |
| E | 15699-18-0 | SULFURIC ACID, AMMONIUM NICKEL(2+) SALT (2:2:1) |
| ES | 13510-49-1 | SULFURIC ACID, BERYLLIUM SALT (1:1) |
| ES | 10124-36-4 | SULFURIC ACID, CADMIUM SALT (1:1) |
| E | 10101-53-8 | SULFURIC ACID, CHROMIUM(3+) SALT (3:2) |
| ES | 64-67-5 | SULFURIC ACID, DIETHYL ESTER |
| ES | 77-78-1 | SULFURIC ACID, DIMETHYL ESTER |
| E | 7446-18-6 | SULFURIC ACID, DITHALLIUM(1+) SALT |
| E | 7720-78-7 | SULFURIC ACID, IRON(2+) SALT (1:1) |
| E | 10028-22-5 | SULFURIC ACID, IRON(3+) SALT (3:2) |
| E | 7446-14-2 | SULFURIC ACID, LEAD(2+) SALT (1:1) |
| E | 7783-35-9 | SULFURIC ACID, MERCURY(2+) SALT (1:1) |
| E | 7786-81-4 | SULFURIC ACID, NICKEL(2+) SALT (1:1) |
| E | 10031-59-1 | SULFURIC ACID, THALLIUM SALT |
| E | 7733-02-0 | SULFURIC ACID, ZINC SALT (1:1) |
| E | 14644-61-2 | SULFURIC ACID, ZIRCONIUM(4+) SALT (2:1) |
| E | 10196-04-0 | SULFUROUS ACID, DIAMMONIUM SALT |
| E | 10192-30-0 | SULFUROUS ACID, MONOAMMONIUM SALT |
| E | 7631-90-5 | SULFUROUS ACID, MONOSODIUM SALT |
| E | 2312-35-8 | SULFUROUS ACID, 2-[4-(1,1-DIMETHYLETHYL)PHENOXY]CYCLOHEXYL 2-PROPYNYL ESTER |
| ES | 140-57-8 | SULFUROUS ACID, 2-CHLOROETHYL 2-[4-(1,1-DIMETHYLETHYL)PHENOXY]-1-METHYLETHYL ESTER |
| | 7791-25-5 | SULFURYL CHLORIDE |
| | 2699-79-8 | SULFURYL FLUORIDE |
| E | 77-81-6 | TABUN |
| | 14807-96-6 | TALC (MG3H2(SIO3)4) |
| | | TALLOW OIL |
| | 7440-25-7 | TANTALUM |
| ES | 8007-45-2 | TAR, COAL |
| E | 13494-80-9 | TELLURIUM |
| E | 7783-80-4 | TELLURIUM FLUORIDE (TEF6), (OC-6-11)- |
| E | 13071-79-9 | TERBUFOS |
| E | 100-21-0 | TEREPHTHALIC ACID |
| | 26140-60-3 | TERPHENYLS |
| | | TERT-BUTYLSTYRENE |
| | 30174-58-4 | TERT-DECANETHIOL |
| | 25103-58-6 | TERT-DODECANETHIOL |
| | 25360-10-5 | TERT-NONANETHIOL |
| | 28983-37-1 | TERT-TETRADECANETHIOL |
| S | | TESTOSTERONE ESTERS |
| E | 961-11-5 | TETRACHLORVINPHOS |
| E | 597-64-8 | TETRAETHYLTIN |
| E | 1314-32-5 | THALLIC OXIDE |
| *E | 7440-28-0 | THALLIUM |
| E | 10102-45-1 | THALLIUM(I) NITRATE |
| E | 12039-52-0 | THALLIUM(I) SELENIDE |
| E | 6533-73-9 | THALLOUS CARBONATE |
| E | 7791-12-0 | THALLOUS CHLORIDE |
| E | 2757-18-8 | THALLOUS MALONATE |
| E | 2231-57-4 | THIOCARBAZIDE |
| E | 1762-95-4 | THIOCYANIC ACID, AMMONIUM SALT |
| E | 592-87-0 | THIOCYANIC ACID, LEAD(2+) SALT |
| E | 592-85-8 | THIOCYANIC ACID, MERCURY(2+) SALT |
| E | 3689-24-5 | THIODIPHOSPHORIC ACID ([(HO)2P(S)]2O), TETRAETHYL ESTER |
| E | 39196-18-4 | THIOFANOX |
| E | 297-97-2 | THIONAZIN |

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**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 7719-09-7 | THIONYL CHLORIDE |
| | 97-77-8 | THIOPEROXYDICARBONIC DIAMIDE ([(H2N)C(S)]2S2), TETRAETHYL- |
| E | 137-26-8 | THIOPEROXYDICARBONIC DIAMIDE ([(H2N)C(S)]2S2), TETRAMETHYL- |
| | 110-02-1 | THIOPHENE |
| | 126-33-0 | THIOPHENE, TETRAHYDRO-, 1,1-DIOXIDE |
| E | 79-19-6 | THIOSEMICARBAZIDE |
| E | 7783-18-8 | THIOSULFURIC ACID (H2S2O3), DIAMMONIUM SALT |
| ES | 62-56-6 | THIOUREA |
| E | 5344-82-1 | THIOUREA, (2-CHLOROPHENYL)- |
| E | 614-78-8 | THIOUREA, (2-METHYLPHENYL)- |
| E | 86-88-4 | THIOUREA, 1-NAPHTHALENYL- |
| ES | 1314-20-1 | THORIUM OXIDE (THO2) |
| | 7440-31-5 | TIN |
| E | 7550-45-0 | TITANIUM CHLORIDE (TICL4) (T-4)- |
| | 13463-67-7 | TITANIUM OXIDE (TIO2) |
| E | 91-08-7 | TOLUENE 2,6-DIISOCYANATE |
| ES | 8001-35-2 | TOXAPHENE |
| | | TRANS-ACETYLENE DICHLORIDE |
| E | 110-57-6 | TRANS-1,4-DICHLOROBUTENE |
| | | TRANSFORMER OIL |
| | 77536-68-6 | TREMOLITE |
| E | 1031-47-6 | TRIAMIPHOS |
| E | 24017-47-8 | TRIAZOFOS |
| E | 1558-25-4 | TRICHLORO(CHLOROMETHYL)SILANE |
| E | 27137-85-5 | TRICHLORO(DICHLOROPHENYL)SILANE |
| E | 76-02-8 | TRICHLOROACETYL CHLORIDE |
| E | 327-98-0 | TRICHLORONATE |
| | 15468-32-3 | TRIDYMITE (SIO2) |
| E | 998-30-1 | TRIETHOXYSILANE |
| E | 1582-09-8 | TRIFLURALIN |
| E | 824-11-3 | TRIMETHYLOLPROPANE PHOSPHITE |
| E | 1066-45-1 | TRIMETHYLTIN CHLORIDE |
| E | 639-58-7 | TRIPHENYLTIN CHLORIDE |
| E | 7758-29-4 | TRIPHOSPHORIC ACID, PENTASODIUM SALT |
| | 1317-95-9 | TRIPOLI |
| E | 555-77-1 | TRIS(2-CHLOROETHYL)AMINE |
| | 7440-33-7 | TUNGSTEN |
| | | TURBO FUELS |
| | 9005-90-7 | TURPENTINE |
| | 7440-61-1 | URANIUM |
| E | 541-09-3 | URANIUM, BIS(ACETATO-O)DIOXO- |
| E | 10102-06-4 | URANIUM, BIS(NITRATO-O)DIOXO-, (T-4)- |
| E | 36478-76-9 | URANIUM, BIS(NITRATO-O,O′)DIOXO-, (OC-6-11)- |
| S | 13010-47-4 | UREA, N-(2-CHLOROETHYL)-N′-CYCLOHEXYL-N-NITROSO- |
| ES | 759-73-9 | UREA, N-ETHYL-N-NITROSO- |
| ES | 684-93-5 | UREA, N-METHYL-N-NITROSO- |
| E | 330-54-1 | UREA, N′-(3,4-DICHLOROPHENYL)-N,N-DIMETHYL- |
| E | 2001-95-8 | VALINOMYCIN |
| E | 7440-62-2 | VANADIUM (FUME OR DUST) |
| | 12604-58-9 | VANADIUM ALLOY, BASE, V,C,FE (FERROVANADIUM) |
| | 7632-51-1 | VANADIUM CHLORIDE (VCL4), (T-4)- |
| | 1314-62-1 | VANADIUM DUST (V2O5) |
| | 1314-62-1 | VANADIUM FUME (V2O5) |
| E | 1314-62-1 | VANADIUM OXIDE (V2O5) |
| E | 27774-13-6 | VANADIUM, OXO[SULFATO(2-)-O]- |
| | | VEGETABLE OIL MISTS |
| E | 129-06-6 | WARFARIN SODIUM |
| | | WATER GAS (CARBURETED) |
| | | WELDING FUMES |
| | | WOOD DUST (CERTAIN HARDWOODS AS BEACH AND OAK) SOFTWOOD |
| | | XYLIDINES |
| E | 28347-13-9 | XYLYLENE DICHLORIDE |
| ES | 50-55-5 | YOHIMBAN-16-CARBOXYLIC ACID, 11,17-DIMETHOXY-18-[(3,4,5-TRIMETHOXYBENZOYL)OXY]-, METHYL ESTER, (3.BETA.,16.BETA.,17.ALPHA.,18.BETA.,20.ALPHA.)- |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**



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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 7440-65-5 | YTTRIUM |
| *E | 7440-66-6 | ZINC |
| E | 7699-45-8 | ZINC BROMIDE (ZNBR2) |
| E | 7646-85-7 | ZINC CHLORIDE (ZNCL2) |
| E | | ZINC CHLORIDE FUME |
| E | 557-21-1 | ZINC CYANIDE (ZN(CN)2) |
| E | 7783-49-5 | ZINC FLUORIDE (ZNF2) |
| E | 1314-13-2 | ZINC OXIDE (ZNO) |
| E | | ZINC OXIDE FUME |
| E | 51810-70-9 | ZINC PHOSPHIDE |
| E | 1314-84-7 | ZINC PHOSPHIDE (ZN3P2) |
| E | 58270-08-9 | ZINC, DICHLORO(4,4-DIMETHYL-5((((METHYLAMINO)CARBONYL)OXY)IMINO) PENTANENITRILE)-,(T-4) |
| E | 557-20-0 | ZINC, DIETHYL- |
| E | 14639-97-5 | ZINCATE(2-), TETRACHLORO-, DIAMMONIUM, (T-4)- |
| E | 14639-98-6 | ZINCATE(3-), PENTACHLORO-, TRIAMMONIUM |
| E | 12122-67-7 | ZINEB |
| E | 16923-95-8 | ZIRCONATE(2-), HEXAFLUORO-, DIPOTASSIUM, (OC-6-11)- |
| | 7440-67-7 | ZIRCONIUM |
| E | 10026-11-6 | ZIRCONIUM CHLORIDE (ZRCL4), (T-4)- |
| | | ZIRCONIUM POWDER |
| E | 109-73-9 | 1-BUTANAMINE |
| | 111-92-2 | 1-BUTANAMINE, N-BUTYL- |
| ES | 924-16-3 | 1-BUTANAMINE, N-BUTYL-N-NITROSO- |
| | 13360-63-9 | 1-BUTANAMINE, N-ETHYL- |
| | 110-68-9 | 1-BUTANAMINE, N-METHYL- |
| | 102-82-9 | 1-BUTANAMINE, N,N-DIBUTYL- |
| | 109-79-5 | 1-BUTANETHIOL |
| E | 71-36-3 | 1-BUTANOL |
| | 96-20-8 | 1-BUTANOL, 2-AMINO- |
| | 97-95-0 | 1-BUTANOL, 2-ETHYL- |
| | 137-32-6 | 1-BUTANOL, 2-METHYL- |
| | 123-51-3 | 1-BUTANOL, 3-METHYL- |
| E | 123-92-2 | 1-BUTANOL, 3-METHYL-, ACETATE |
| | 689-97-4 | 1-BUTEN-3-YNE |
| | 78-80-8 | 1-BUTEN-3-YNE, 2-METHYL- |
| | 106-98-9 | 1-BUTENE |
| | 563-46-2 | 1-BUTENE, 2-METHYL- |
| | 563-78-0 | 1-BUTENE, 2,3-DIMETHYL- |
| | 594-56-9 | 1-BUTENE, 2,3,3-TRIMETHYL- |
| | 563-45-1 | 1-BUTENE, 3-METHYL- |
| | 64037-54-3 | 1-BUTENE, 3,4-DICHLORO-, (.+-.)- |
| | 2016-57-1 | 1-DECANAMINE |
| | 112-30-1 | 1-DECANOL |
| | | 1-DIBUTYLAMINO-2-PROPANOL |
| | 112-55-0 | 1-DODECANETHIOL |
| | 111-68-2 | 1-HEPTANAMINE |
| | 592-76-7 | 1-HEPTENE |
| | 111-26-2 | 1-HEXANAMINE |
| | 143-16-8 | 1-HEXANAMINE, N-HEXYL- |
| | 104-75-6 | 1-HEXANAMINE, 2-ETHYL- |
| | 106-20-7 | 1-HEXANAMINE, 2-ETHYL-N-(2-ETHYLHEXYL)- |
| | 111-27-3 | 1-HEXANOL |
| | 104-76-7 | 1-HEXANOL, 2-ETHYL- |
| | 3452-97-9 | 1-HEXANOL, 3,5,5-TRIMETHYL- |
| | 592-41-6 | 1-HEXENE |
| E | 134-32-7 | 1-NAPHTHALENAMINE |
| E | 63-25-2 | 1-NAPHTHALENOL, METHYLCARBAMATE |
| | 111-86-4 | 1-OCTANAMINE |
| | 1120-48-5 | 1-OCTANAMINE, N-OCTYL- |
| | 111-88-6 | 1-OCTANETHIOL |
| | 111-87-5 | 1-OCTANOL |
| | 111-66-0 | 1-OCTENE |
| | 110-58-7 | 1-PENTANAMINE |
| | 2050-92-2 | 1-PENTANAMINE, N-PENTYL- |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 621-77-2 | 1-PENTANAMINE, N,N-DIPENTYL- |
| | 110-66-7 | 1-PENTANETHIOL |
| | 71-41-0 | 1-PENTANOL |
| | 54972-97-3 | 1-PENTANOL, METHYL- |
| | 109-67-1 | 1-PENTENE |
| | 763-29-1 | 1-PENTENE, 2-METHYL- |
| | 565-76-4 | 1-PENTENE, 2,3,4-TRIMETHYL- |
| | 107-39-1 | 1-PENTENE, 2,4,4-TRIMETHYL- |
| | 691-37-2 | 1-PENTENE, 4-METHYL- |
| | 627-19-0 | 1-PENTYNE |
| | 140-31-8 | 1-PIPERAZINEETHANAMINE |
| E | 107-10-8 | 1-PROPANAMINE |
| ES | 621-64-7 | 1-PROPANAMINE, N-NITROSO-N-PROPYL- |
| E | 142-84-7 | 1-PROPANAMINE, N-PROPYL- |
| | 102-69-2 | 1-PROPANAMINE, N,N-DIPROPYL- |
| E | 78-81-9 | 1-PROPANAMINE, 2-METHYL- |
| | 110-96-3 | 1-PROPANAMINE, 2-METHYL-N-(2-METHYLPROPYL)- |
| | 5332-73-0 | 1-PROPANAMINE, 3-METHOXY- |
| | 71-23-8 | 1-PROPANOL |
| | 124-68-5 | 1-PROPANOL, 2-AMINO-2-METHYL- |
| | 78-89-7 | 1-PROPANOL, 2-CHLORO- |
| E | 78-83-1 | 1-PROPANOL, 2-METHYL- |
| | 75-84-3 | 1-PROPANOL, 2,2-DIMETHYL- |
| ES | 126-72-7 | 1-PROPANOL, 2,3-DIBROMO-, PHOSPHATE (3:1) |
| | 156-87-6 | 1-PROPANOL, 3-AMINO- |
| | 108-22-5 | 1-PROPEN-2-OL, ACETATE |
| E | 115-07-1 | 1-PROPENE |
| E | 26952-23-8 | 1-PROPENE, DICHLORO- |
| | 13987-01-4 | 1-PROPENE, TRIMER |
| | 590-21-6 | 1-PROPENE, 1-CHLORO- |
| | 928-55-2 | 1-PROPENE, 1-ETHOXY- |
| ES | 542-75-6 | 1-PROPENE, 1,3-DICHLORO- |
| E | 8003-19-8 | 1-PROPENE, 1,3-DICHLORO-, MIXT. WITH 1,2-DICHLOROPROPANE |
| | 557-98-2 | 1-PROPENE, 2-CHLORO- |
| | 115-11-7 | 1-PROPENE, 2-METHYL- |
| E | 78-88-6 | 1-PROPENE, 2,3-DICHLORO- |
| | 3917-15-5 | 1-PROPENE, 3-(ETHENYLOXY)- |
| | 106-95-6 | 1-PROPENE, 3-BROMO- |
| E | 107-05-1 | 1-PROPENE, 3-CHLORO- |
| S | 563-47-3 | 1-PROPENE, 3-CHLORO-2-METHYL- |
| | 57-06-7 | 1-PROPENE, 3-ISOTHIOCYANATO- |
| | 557-40-4 | 1-PROPENE, 3,3′-OXYBIS- |
| | 74-99-7 | 1-PROPYNE |
| E | 106-96-7 | 1-PROPYNE, 3-BROMO- |
| E | 92-52-4 | 1,1′-BIPHENYL |
| ES | 1336-36-3 | 1,1′-BIPHENYL, CHLORO DERIVS. |
| | 28984-85-2 | 1,1′-BIPHENYL, NITRO- |
| | 643-58-3 | 1,1′-BIPHENYL, 2-METHYL- |
| | 92-66-0 | 1,1′-BIPHENYL, 4-BROMO- |
| E | 92-93-3 | 1,1′-BIPHENYL, 4-NITRO- |
| S | 95-83-0 | 1,2-BENZENEDIAMINE, 4-CHLORO- |
| ES | 117-81-7 | 1,2-BENZENEDICARBOXYLIC ACID, BIS(2-ETHYLHEXYL) ESTER |
| E | 85-68-7 | 1,2-BENZENEDICARBOXYLIC ACID, BUTYL PHENYLMETHYL ESTER |
| | 131-17-9 | 1,2-BENZENEDICARBOXYLIC ACID, DI-2-PROPENYL ESTER |
| E | 84-74-2 | 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER |
| E | 84-66-2 | 1,2-BENZENEDICARBOXYLIC ACID, DIETHYL ESTER |
| E | 131-11-3 | 1,2-BENZENEDICARBOXYLIC ACID, DIMETHYL ESTER |
| E | 117-84-0 | 1,2-BENZENEDICARBOXYLIC ACID, DIOCTYL ESTER |
| | 84-72-0 | 1,2-BENZENEDICARBOXYLIC ACID, 2-ETHOXY-2-OXOETHYL ETHYL ESTER |
| | 85-71-2 | 1,2-BENZENEDICARBOXYLIC ACID, 2-ETHOXY-2-OXOETHYL METHYL ESTER |
| E | 120-80-9 | 1,2-BENZENEDIOL |
| | 98-29-3 | 1,2-BENZENEDIOL, 4-(1,1-DIMETHYLETHYL)- |
| E | 51-43-4 | 1,2-BENZENEDIOL,4-(1-HYDROXY-2-(METHYLAMINO)ETHYL)- |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**



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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| ES | 81-07-2 | 1,2-BENZISOTHIAZOL-3(2H)-ONE, 1,1-DIOXIDE |
| S | 128-44-9 | 1,2-BENZISOTHIAZOL-3(2H)-ONE, 1,1-DIOXIDE, SODIUM SALT |
| E | 123-33-1 | 1,2-DIHYDRO-3,6-PYRIDAZINEDIONE |
| E | 107-15-3 | 1,2-ETHANEDIAMINE |
| | 111-40-0 | 1,2-ETHANEDIAMINE, N-(2-AMINOETHYL)- |
| | 112-57-2 | 1,2-ETHANEDIAMINE, N-(2-AMINOETHYL)-N′-[2-[(2-AMINOETHYL)AMINO]ETHYL]- |
| | 100-36-7 | 1,2-ETHANEDIAMINE, N,N-DIETHYL- |
| E | 91-80-5 | 1,2-ETHANEDIAMINE, N,N-DIMETHYL-N′-2-PYRIDINYL-N′-(2-THIENYLMETHYL)- |
| | 112-24-3 | 1,2-ETHANEDIAMINE, N,N′-BIS(2-AMINOETHYL)- |
| E | 107-21-1 | 1,2-ETHANEDIOL |
| | 111-55-7 | 1,2-ETHANEDIOL, DIACETATE |
| | 628-96-6 | 1,2-ETHANEDIOL, DINITRATE |
| E | 111-54-6 | 1,2-ETHANEDIYLBISCARBAMODITHIOIC ACID |
| | 50146 | 1,2-ETHYLIDENE DICHLORIDE |
| ES | 1120-71-4 | 1,2-OXATHIOLANE, 2,2-DIOXIDE |
| | 78-90-0 | 1,2-PROPANEDIAMINE |
| | 57-55-6 | 1,2-PROPANEDIOL |
| | 6423-43-4 | 1,2-PROPANEDIOL, DINITRATE |
| E | | 1,2/1,3 DICHLOROPROPYLENE |
| E | 1185-57-5 | 1,2,3-PROPANETRICARBOXYLIC ACID, 2-HYDROXY-, AMMONIUM IRON(3+) SALT |
| E | 3012-65-5 | 1,2,3-PROPANETRICARBOXYLIC ACID, 2-HYDROXY-, DIAMMONIUM SALT |
| | 56-81-5 | 1,2,3-PROPANETRIOL |
| E | 55-63-0 | 1,2,3-PROPANETRIOL, TRINITRATE |
| S | 299-75-2 | 1,2,3,4-BUTANETETROL, 1,4-DIMETHANESULFONATE, [S-(R*,R*)]- |
| E | 7421-93-4 | 1,2,4-METHENOCYCLOPENTA[CD]PENTALENE-5-CARBOXALDEHYDE, 2,2A,3,3,4,7-HEXACHLORODECAHYDRO-, (1.ALPHA.,2.BETA.,2A.BETA.,4.BETA.,4A.BETA.,5.BETA.,6A.BETA.,6B.BETA.,7R*)- |
| | 21087-64-9 | 1,2,4-TRIAZIN-5(4H)-ONE, 4-AMINO-6-(1,1-DIMETHYLETHYL)-3-(METHYLTHIO)- |
| ES | 39156-41-7 | 1,3-BENZENEDIAMINE, 4-METHOXY-, SULFATE (1:1) |
| ES | 95-80-7 | 1,3-BENZENEDIAMINE, 4-METHYL- |
| | 626-17-5 | 1,3-BENZENEDICARBONITRILE |
| | 1477-55-0 | 1,3-BENZENEDIMETHANAMINE |
| E | 108-46-3 | 1,3-BENZENEDIOL |
| ES | 120-58-1 | 1,3-BENZODIOXOLE, 5-(1-PROPENYL)- |
| ES | 94-59-7 | 1,3-BENZODIOXOLE, 5-(2-PROPENYL)- |
| ES | 94-58-6 | 1,3-BENZODIOXOLE, 5-PROPYL- |
| ES | 106-99-0 | 1,3-BUTADIENE |
| E | 87-68-3 | 1,3-BUTADIENE, 1,1,2,3,4,4-HEXACHLORO- |
| E | 126-99-8 | 1,3-BUTADIENE, 2-CHLORO- |
| E | 78-79-5 | 1,3-BUTADIENE, 2-METHYL- |
| | 1653-19-6 | 1,3-BUTADIENE, 2,3-DICHLORO- |
| E | 86-78-3 | 1,3-BUTADIENE,1,1,2,3,4,4-HEXACHLORO- |
| | 590-88-5 | 1,3-BUTANEDIAMINE |
| | 32280-46-9 | 1,3-BUTANEDIAMINE, N,N′-DIETHYL- |
| | 542-92-7 | 1,3-CYCLOPENTADIENE |
| E | 77-47-4 | 1,3-CYCLOPENTADIENE, 1,2,3,4,5,5-HEXACHLORO- |
| | | 1,3-DICHLORO-2-PROPANOL |
| | 96-49-1 | 1,3-DIOXOLAN-2-ONE |
| | 646-06-0 | 1,3-DIOXOLANE |
| | 126-39-6 | 1,3-DIOXOLANE, 2-ETHYL-2-METHYL- |
| E | 85-44-9 | 1,3-ISOBENZOFURANDIONE |
| E | 504-60-9 | 1,3-PENTADIENE |
| | 1118-58-7 | 1,3-PENTADIENE, 2-METHYL- |
| | 926-56-7 | 1,3-PENTADIENE, 4-METHYL- |
| | 149-31-5 | 1,3-PENTANEDIOL, 2-METHYL- |
| | 109-76-2 | 1,3-PROPANEDIAMINE |
| | 3312-60-5 | 1,3-PROPANEDIAMINE, N-CYCLOHEXYL- |
| | 104-78-9 | 1,3-PROPANEDIAMINE, N,N-DIETHYL- |
| | 109-55-7 | 1,3-PROPANEDIAMINE, N,N-DIMETHYL- |
| | 115-84-4 | 1,3-PROPANEDIOL, 2-BUTYL-2-ETHYL- |
| | 115-77-5 | 1,3-PROPANEDIOL, 2,2-BIS(HYDROXYMETHYL)- |
| | 115-76-4 | 1,3-PROPANEDIOL, 2,2-DIETHYL- |
| S | 2385-85-5 | 1,3,4-METHENO-1H-CYCLOBUTA[CD]PENTALENE, 1,1A,2,2,3,3A,4,5,5,5A,5B,6-DODECACHLOROOCTAHYDRO- |

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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| ES | 143-50-0 | 1,3,4-METHENO-2H-CYCLOBUTA[CD]PENTALEN-2-ONE, 1,1A,3,3A,4,5,5,5A,5B,6-DECACHLOROOCTAHYDRO- |
| S | 712-68-5 | 1,3,4-THIADIAZOL-2-AMINE, 5-(5-NITRO-2-FURANYL)- |
| | 1912-24-9 | 1,3,5-TRIAZINE-2,4-DIAMINE, 6-CHLORO-N-ETHYL-N′-(1-METHYLETHYL)- |
| | 13057-78-8 | 1,3,5-TRIAZINE-2,4,6(1H,3H,5H)-TRIONE, 1-CHLORO- |
| | 2782-57-2 | 1,3,5-TRIAZINE-2,4,6(1H,3H,5H)-TRIONE, 1,3-DICHLORO- |
| | 2244-21-5 | 1,3,5-TRIAZINE-2,4,6(1H,3H,5H)-TRIONE, 1,3-DICHLORO-, POTASSIUM SALT |
| | 2893-78-9 | 1,3,5-TRIAZINE-2,4,6(1H,3H,5H)-TRIONE, 1,3-DICHLORO-, SODIUM SALT |
| | 51580-86-0 | 1,3,5-TRIAZINE-2,4,6(1H,3H,5H)-TRIONE, 1,3-DICHLORO-, SODIUM SALT, DIHYDRATE |
| | 87-90-1 | 1,3,5-TRIAZINE-2,4,6(1H,3H,5H)-TRIONE, 1,3,5-TRICHLORO- |
| | 121-82-4 | 1,3,5-TRIAZINE, HEXAHYDRO-1,3,5-TRINITRO- |
| | 110-88-3 | 1,3,5-TRIOXANE |
| E | 123-63-7 | 1,3,5-TRIOXANE, 2,4,6-TRIMETHYL- |
| | 108-62-3 | 1,3,5,7-TETROXOCANE, 2,4,6,8-TETRAMETHYL- |
| E | 106-50-3 | 1,4-BENZENEDIAMINE |
| | 101-96-2 | 1,4-BENZENEDIAMINE, N,N′-BIS(1-METHYLPROPYL)- |
| | 3081-14-9 | 1,4-BENZENEDIAMINE, N,N′-BIS(1,4-DIMETHYLPENTYL)- |
| | 100-20-9 | 1,4-BENZENEDICARBONYL DICHLORIDE |
| S | 55-98-1 | 1,4-BUTANEDIOL, DIMETHANESULFONATE |
| ES | 123-91-1 | 1,4-DIOXANE |
| | 25136-55-4 | 1,4-DIOXANE, DIMETHYL- |
| | 592-45-0 | 1,4-HEXADIENE |
| E | 130-15-4 | 1,4-NAPHTHALENEDIONE |
| E | 117-80-6 | 1,4-NAPHTHALENEDIONE, 2,3-DICHLORO- |
| | 15980-15-1 | 1,4-OXATHIANE |
| E | 309-00-2 | 1,4:5,8-DIMETHANONAPHTHALENE, 1,2,3,4,10,10-HEXACHLORO-1,4,4A,5,8,8A-HEXAHYDRO-, (1.ALPHA.,4.ALPHA.,4A.BETA.,5.ALPHA.,8.ALPHA.,8A.BETA.)- |
| | 111-78-4 | 1,5-CYCLOOCTADIENE |
| | 821-08-9 | 1,5-HEXADIEN-3-YNE |
| S | 443-48-1 | 1H-IMIDAZOLE-1-ETHANOL, 2-METHYL-5-NITRO- |
| S | 4342-03-4 | 1H-IMIDAZOLE-4-CARBOXAMIDE, 5-(3,3-DIMETHYL-1-TRIAZENYL)- |
| | 95-13-6 | 1H-INDENE |
| | 83-26-1 | 1H-INDENE-1,3(2H)-DIONE, 2-(2,2-DIMETHYL-1-OXOPROPYL)- |
| E | 133-06-2 | 1H-ISOINDOLE-1,3(2H)-DIONE, 3A,4,7,7A-TETRAHYDRO-2-[(TRICHLOROMETHYL)THIO]- |
| | 2425-06-1 | 1H-ISOINDOLE-1,3(2H)-DIONE, 3A,4,7,7A-TETRAHYDRO-2-[(1,1,2,2-TETRACHLOROETHYL)THIO]- |
| S | 446-86-6 | 1H-PURINE, 6-[(1-METHYL-4-NITRO-1H-IMIDAZOL-5-YL)THIO]- |
| | 109-97-7 | 1H-PYRROLE |
| | 27417-39-6 | 1H-PYRROLE, METHYL- |
| ES | 61-82-5 | 1H-1,2,4-TRIAZOL-3-AMINE |
| | 92-84-2 | 10H-PHENOTHIAZINE |
| S | 68-22-4 | 19-NORPREGN-4-EN-20-YN-3-ONE, 17-HYDROXY-, (17.ALPHA.)- |
| S | 72-33-3 | 19-NORPREGNA-1,3,5(10)-TRIEN-20-YN-17-OL, 3-METHOXY-, (17.ALPHA.)- |
| S | 57-63-6 | 19-NORPREGNA-1,3,5(10)-TRIEN-20-YNE-3,17-DIOL, (17.ALPHA.)- |
| E | 13952-84-6 | 2-BUTANAMINE |
| | 626-23-3 | 2-BUTANAMINE, N-(1-METHYLPROPYL)- |
| | 513-53-1 | 2-BUTANETHIOL |
| | 2084-18-6 | 2-BUTANETHIOL, 3-METHYL- |
| E | 78-92-2 | 2-BUTANOL |
| | 75-85-4 | 2-BUTANOL, 2-METHYL- |
| E | 625-16-1 | 2-BUTANOL, 2-METHYL-, ACETATE |
| | 598-75-4 | 2-BUTANOL, 3-METHYL- |
| E | 78-93-3 | 2-BUTANONE |
| E | 1338-23-4 | 2-BUTANONE, PEROXIDE |
| | 563-80-4 | 2-BUTANONE, 3-METHYL- |
| | 6117-91-5 | 2-BUTEN-1-OL |
| E | 4170-30-3 | 2-BUTENAL |
| | 107-01-7 | 2-BUTENE |
| | 624-64-6 | 2-BUTENE, (E)- |
| | 590-18-1 | 2-BUTENE, (Z)- |
| | 4784-77-4 | 2-BUTENE, 1-BROMO- |
| | 591-97-9 | 2-BUTENE, 1-CHLORO- |
| | 926-57-8 | 2-BUTENE, 1,3-DICHLORO- |
| E | 764-41-0 | 2-BUTENE, 1,4-DICHLORO- |

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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 4461-41-0 | 2-BUTENE, 2-CHLORO- |
| | 513-35-9 | 2-BUTENE, 2-METHYL- |
| | 563-79-1 | 2-BUTENE, 2,3-DIMETHYL- |
| E | 110-17-8 | 2-BUTENEDIOIC ACID (E)- |
| E | 110-16-7 | 2-BUTENEDIOIC ACID (Z)- |
| | 3724-65-0 | 2-BUTENOIC ACID |
| | 14861-06-4 | 2-BUTENOIC ACID, ETHENYL ESTER |
| | 10544-63-5 | 2-BUTENOIC ACID, ETHYL ESTER |
| ES | 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-PYRROLIZIN-1-YL ESTER, [1S-[1ALPHA.(Z),7(2S*,3R*),7A.ALPHA.]]- |
| E | 7786-34-7 | 2-BUTENOIC ACID, 3-[(DIMETHOXYPHOSPHINYL)OXY]-, METHYL ESTER |
| | 503-17-3 | 2-BUTYNE |
| E | 78-59-1 | 2-CYCLOHEXEN-1-ONE, 3,5,5-TRIMETHYL- |
| | | 2-ETHOXY-3,4-DI-HYDRO-2-PYRAN |
| S | 3688-53-7 | 2-FURANACETAMIDE, .ALPHA.-[(5-NITRO-2-FURANYL)METHYLENE]- |
| E | 98-01-1 | 2-FURANCARBOXALDEHYDE |
| | 617-89-0 | 2-FURANMETHANAMINE |
| | 98-00-0 | 2-FURANMETHANOL |
| | 97-99-4 | 2-FURANMETHANOL, TETRAHYDRO- |
| | 110-43-0 | 2-HEPTANONE |
| | 14686-13-6 | 2-HEPTENE, (E)- |
| | 591-78-6 | 2-HEXANONE |
| | 110-12-3 | 2-HEXANONE, 5-METHYL- |
| | 645-62-5 | 2-HEXENAL, 2-ETHYL- |
| | | 2-HEXENE (MIXED CIS-AND TRANS-ISOMERS) |
| | 5309-52-4 | 2-HEXENOIC ACID, 2-ETHYL- |
| | 764-35-2 | 2-HEXYNE |
| ES | 96-45-7 | 2-IMIDAZOLIDINETHIONE |
| S | 61-57-4 | 2-IMIDAZOLIDINONE, 1-(5-NITRO-2-THIAZOLYL)- |
| S | 555-84-0 | 2-IMIDAZOLIDINONE, 1-[[(5-NITRO-2-FURANYL)METHYLENE]AMINO]- |
| ES | 91-59-8 | 2-NAPHTHALENAMINE |
| | 135-88-6 | 2-NAPHTHALENAMINE, N-PHENYL- |
| ES | 494-03-1 | 2-NAPHTHALENAMINE, N,N-BIS(2-CHLOROETHYL)- |
| S | 2646-17-5 | 2-NAPHTHALENOL, 1-[(2-METHYLPHENYL)AZO]- |
| ES | 6358-53-8 | 2-NAPHTHALENOL, 1-[(2,5-DIMETHOXYPHENYL)AZO]- |
| | | 2-OCTENE (MIXED CIS-AND TRANS-ISOMERS) |
| S | 139-91-3 | 2-OXAZOLIDINONE, 5-(4-MORPHOLINYLMETHYL)-3-[[(5-NITRO-2-FURANYL)METHYLENE]AMINO]- |
| ES | 57-57-8 | 2-OXETANONE |
| S | 3068-88-0 | 2-OXETANONE, 4-METHYL- |
| | 674-82-8 | 2-OXETANONE, 4-METHYLENE- |
| | 625-30-9 | 2-PENTANAMINE |
| | 107-45-9 | 2-PENTANAMINE, 2,4,4-TRIMETHYL- |
| | 108-09-8 | 2-PENTANAMINE, 4-METHYL- |
| | 141-59-3 | 2-PENTANETHIOL, 2,4,4-TRIMETHYL- |
| | 6032-29-7 | 2-PENTANOL |
| E | 626-38-0 | 2-PENTANOL, ACETATE |
| | 108-11-2 | 2-PENTANOL, 4-METHYL- |
| | 107-87-9 | 2-PENTANONE |
| | 123-42-2 | 2-PENTANONE, 4-HYDROXY-4-METHYL- |
| E | 108-10-1 | 2-PENTANONE, 4-METHYL- |
| | 646-04-8 | 2-PENTENE, (E)- |
| | 627-20-3 | 2-PENTENE, (Z)- |
| | 625-27-4 | 2-PENTENE, 2-METHYL- |
| | 107-40-4 | 2-PENTENE, 2,4,4-TRIMETHYL- |
| | 598-96-9 | 2-PENTENE, 3,4,4-TRIMETHYL- |
| | 4461-48-7 | 2-PENTENE, 4-METHYL- |
| E | 90-43-7 | 2-PHENYLPHENOL |
| | 75-31-0 | 2-PROPANAMINE |
| | 108-18-9 | 2-PROPANAMINE, N-(1-METHYLETHYL)- |
| E | 75-64-9 | 2-PROPANAMINE, 2-METHYL- |
| | 75-66-1 | 2-PROPANETHIOL, 2-METHYL- |
| E | 67-63-0 | 2-PROPANOL |

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**S—SPECIAL HAZARDOUS SUBSTANCE**

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 2109-64-0 | 2-PROPANOL, 1-(DIBUTYLAMINO)- |
| | 108-16-7 | 2-PROPANOL, 1-(DIMETHYLAMINO)- |
| | 124-16-3 | 2-PROPANOL, 1-(2-BUTOXYETHOXY)- |
| | 78-96-6 | 2-PROPANOL, 1-AMINO- |
| | 127-00-4 | 2-PROPANOL, 1-CHLORO- |
| | 107-98-2 | 2-PROPANOL, 1-METHOXY- |
| | 110-97-4 | 2-PROPANOL, 1,1′-IMINOBIS- |
| | 122-20-3 | 2-PROPANOL, 1,1′,1″-NITRILOTRIS- |
| | 616-29-5 | 2-PROPANOL, 1,3-DIAMINO- |
| E | 75-65-0 | 2-PROPANOL, 2-METHYL- |
| E | 67-64-1 | 2-PROPANONE |
| | 684-16-2 | 2-PROPANONE, 1,1,1,3,3,3-HEXAFLUORO- |
| E | 107-11-9 | 2-PROPEN-1-AMINE |
| E | 107-18-6 | 2-PROPEN-1-OL |
| | 513-42-8 | 2-PROPEN-1-OL, 2-METHYL- |
| E | 107-02-8 | 2-PROPENAL |
| | 78-85-3 | 2-PROPENAL, 2-METHYL- |
| E | 79-06-1 | 2-PROPENAMIDE |
| | 869-29-4 | 2-PROPENE-1,1-DIOL, DIACETATE |
| ES | 107-13-1 | 2-PROPENENITRILE |
| E | 126-98-7 | 2-PROPENENITRILE, 2-METHYL- |
| E | 79-10-7 | 2-PROPENOIC ACID |
| E | 141-32-2 | 2-PROPENOIC ACID, BUTYL ESTER |
| | 2156-96-9 | 2-PROPENOIC ACID, DECYL ESTER |
| ES | 140-88-5 | 2-PROPENOIC ACID, ETHYL ESTER |
| E | 96-33-3 | 2-PROPENOIC ACID, METHYL ESTER |
| | 2499-59-4 | 2-PROPENOIC ACID, OCTYL ESTER |
| | 2426-54-2 | 2-PROPENOIC ACID, 2-(DIETHYLAMINO)ETHYL ESTER |
| | 137-05-3 | 2-PROPENOIC ACID, 2-CYANO-, METHYL ESTER |
| | 106-71-8 | 2-PROPENOIC ACID, 2-CYANOETHYL ESTER |
| | 3953-10-4 | 2-PROPENOIC ACID, 2-ETHYLBUTYL ESTER |
| | 103-11-7 | 2-PROPENOIC ACID, 2-ETHYLHEXYL ESTER |
| | 818-61-1 | 2-PROPENOIC ACID, 2-HYDROXYETHYL ESTER |
| | 999-61-1 | 2-PROPENOIC ACID, 2-HYDROXYPROPYL ESTER |
| | 79-41-4 | 2-PROPENOIC ACID, 2-METHYL- |
| | 97-88-1 | 2-PROPENOIC ACID, 2-METHYL-, BUTYL ESTER |
| E | 97-63-2 | 2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER |
| E | 80-62-6 | 2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER |
| | 2867-47-2 | 2-PROPENOIC ACID, 2-METHYL-, 2-(DIMETHYLAMINO)ETHYL ESTER |
| | 3775-90-4 | 2-PROPENOIC ACID, 2-METHYL-, 2-[(1,1-DIMETHYLETHYL)AMINO]ETHYL ESTER |
| | 106-63-8 | 2-PROPENOIC ACID, 2-METHYLPROPYL ESTER |
| E | 107-19-7 | 2-PROPYN-1-OL |
| | 504-29-0 | 2-PYRIDINAMINE |
| | 1918-02-1 | 2-PYRIDINECARBOXYLIC ACID, 4-AMINO-3,5,6-TRICHLORO- |
| | 616-45-5 | 2-PYRROLIDINONE |
| | 872-50-4 | 2-PYRROLIDINONE, 1-METHYL- |
| | | 2,BETA-BUTOXYETHOXYETHYL CHLORIDE |
| ES | 1464-53-5 | 2,2′-BIOXIRANE |
| | 431-03-8 | 2,3-BUTANEDIONE |
| ES | 66-75-1 | 2,4(1H,3H)-PYRIMIDINEDIONE, 5-[BIS(2-CHLOROETHYL)AMINO]- |
| | 314-40-9 | 2,4(1H,3H)-PYRIMIDINEDIONE, 5-BROMO-6-METHYL-3-(1-METHYLPROPYL)- |
| E | 615-05-4 | 2,4-DIAMINOANISOLE |
| | 80466-34-8 | 2,4-HEXADIENAL |
| | 118-52-5 | 2,4-IMIDAZOLIDINEDIONE, 1,3-DICHLORO-5,5-DIMETHYL- |
| S | 57-41-0 | 2,4-IMIDAZOLIDINEDIONE, 5,5-DIPHENYL- |
| | 107-41-5 | 2,4-PENTANEDIOL, 2-METHYL- |
| | 123-54-6 | 2,4-PENTANEDIONE |
| E | | 2,4,5-T AMINES |
| E | 2008-46-0 | 2,4,5-T AMINES |
| E | 61792-07-2 | 2,4,5-T ESTERS |
| E | 25168-15-4 | 2,4,5-T ESTERS |
| E | 1928-47-8 | 2,4,5-T ESTERS |
| E | 106-51-4 | 2,5-CYCLOHEXADIENE-1,4-DIONE |
| ES | 68-76-8 | 2,5-CYCLOHEXADIENE-1,4-DIONE, 2,3,5-TRIS(1-AZIRIDINYL)- |
| E | 108-31-6 | 2,5-FURANDIONE |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**



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| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 504-20-1 | 2,5-HEPTADIEN-4-ONE, 2,6-DIMETHYL- |
| | 2935-44-6 | 2,5-HEXANEDIOL |
| E | 1024-57-3 | 2,5-METHANO-2H-INDENO[1,2-B]OXIRENE, 2,3,4,5,6,7,7-HEPTACHLORO-1A,1B,5,5A,6,6A-HEXAHYDRO-, (1A.ALPHA.,1B.BETA.,2.ALPHA.,5.ALPHA.,5A.BETA.,6.BETA.,A.ALPHA.)- |
| E | 87-65-0 | 2,6-DICHLOROPHENOL |
| E | 66-81-9 | 2,6-PIPERIDINEDIONE, 4-[2-(3,5-DIMETHYL-2-OXOCYCLOHEXYL)-2-HYDROXYETHYL]-, [1S-[1.ALPHA.(S*),3.ALPHA.,5.BETA.]]- |
| S | 94-78-0 | 2,6-PYRIDINEDIAMINE, 3-(PHENYLAZO)- |
| S | 136-40-3 | 2,6-PYRIDINEDIAMINE, 3-(PHENYLAZO)-, MONOHYDROCHLORIDE |
| S | 3564-09-8 | 2,7-NAPHTHALENEDISULFONIC ACID, 3-HYDROXY-4-[(2,4,5-TRIMETHYLPHENYL)AZO]-, DISODIUM SALT |
| ES | 72-57-1 | 2,7-NAPHTHALENEDISULFONIC ACID, TETRASODIUM SALT |
| ES | 2602-46-2 | 2,7-NAPHTHALENEDISULFONIC ACID, 3,3′-[[1,1′-BIPHENYL]-4,4′-DIYLBIS(AZO)]BIS[5-AMINO-4-HYDROXY-, TETRASODIUM SALT |
| ES | 3761-53-3 | 2,7-NAPHTHALENEDISULFONIC ACID, 4-[(2,4-DIMETHYLPHENYL)AZO]-3-HYDROXY-, DISODIUM SALT |
| ES | 1937-37-7 | 2,7-NAPHTHALENEDISULFONIC ACID, (PHENYLAZO)-, DISODIUM SALT |
| E | 60-57-1 | 2,7:3,6-DIMETHANONAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1A.ALPHA.,2.BETA.,2A.ALPHA.,3.BETA.,6.BETA.,6A.ALPH.,7.BETA.,7A.ALPHA.)- |
| E | 72-20-8 | 2,7:3,6-DIMETHANONAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1A.ALPHA.,2.BETA.,2A.BETA.,3.ALPHA.,6.ALPHA.,6A.BET.,7.BETA.,7A.ALPHA.)- |
| | 105-60-2 | 2H-AZEPIN-2-ONE, HEXAHYDRO- |
| | 100-73-2 | 2H-PYRAN-2-CARBOXALDEHYDE, 3,4-DIHYDRO- |
| | 25512-65-6 | 2H-PYRAN, DIHYDRO- |
| | 142-68-7 | 2H-PYRAN, TETRAHYDRO- |
| | 110-87-2 | 2H-PYRAN, 3,4-DIHYDRO- |
| | 3174-74-1 | 2H-PYRAN, 3,6-DIHYDRO- |
| E | 81-81-2 | 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)- |
| | 154-23-4 | 2H-1-BENZOPYRAN-3,5,7-TRIOL, 2-(3,4-DIHYDROXYPHENYL)-3,4-DIHYDRO-, (2R-TRANS)- |
| ES | 50-18-0 | 2H-1,3,2-OXAZAPHOSPHORIN-2-AMINE, N,N-BIS(2-CHLOROETHYL)TETRAHYDRO-, 2-OXIDE |
| S | 315-22-0 | 20-NORCROTALANAN-11,15-DIONE, 14,19-DIHYDRO-12,13-DIHYDROXY-, (13.ALPHA.,14.ALPHA.)- |
| S | | 3-AMINO-1-METHYL-5-H-PYRIDO(4,3-B)INDOLEACETATE |
| S | | 3-AMINO-1,4-DIMETHYL-5-H-PYRIDO(4,3-B)INDOLE ACETATE |
| E | 78-94-4 | 3-BUTEN-2-ONE |
| | 814-78-8 | 3-BUTEN-2-ONE, 3-METHYL- |
| | 115-19-5 | 3-BUTYN-2-OL, 2-METHYL- |
| | 100-50-5 | 3-CYCLOHEXENE-1-CARBOXALDEHYDE |
| | 106-35-4 | 3-HEPTANONE |
| | 541-85-5 | 3-HEPTANONE, 5-METHYL- |
| | | 3-HEPTENE (MIXED CIS AND TRANS) |
| | 589-38-8 | 3-HEXANONE |
| | 928-96-1 | 3-HEXEN-1-OL, (Z)- |
| S | | 3-METHYLNITROSAMINOPROPIONITRILE |
| | 106-68-3 | 3-OCTANONE |
| | 584-02-1 | 3-PENTANOL |
| | 96-22-0 | 3-PENTANONE |
| | 141-79-7 | 3-PENTEN-2-ONE, 4-METHYL- |
| ES | 56-04-2 | 4(1H)-PYRIMIDINONE, 2,3-DIHYDRO-6-METHYL-2-THIOXO- |
| ES | 51-52-5 | 4(1H)-PYRIMIDINONE, 2,3-DIHYDRO-6-PROPYL-2-THIOXO- |
| E | 60-09-3 | 4-AMINOAZOBENZENE |
| | 123-19-3 | 4-HEPTANONE |
| | 108-83-8 | 4-HEPTANONE, 2,6-DIMETHYL- |
| | 2038-03-1 | 4-MORPHOLINEETHANAMINE |
| | 622-40-2 | 4-MORPHOLINEETHANOL |
| | 123-00-2 | 4-MORPHOLINEPROPANAMINE |

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| | | |
|---|---|---|
| | 123-17-1 | 4-NONANOL, 2,6,8-TRIMETHYL- |

| *ES | CAS NO. | SUBSTANCE NAME |
|---|---|---|
| | 123-18-2 | 4-NONANONE, 2,6,8-TRIMETHYL- |
| | 2971-90-6 | 4-PYRIDINOL, 3,5-DICHLORO-2,6-DIMETHYL- |
| | 19594-40-2 | 4-UNDECANONE, 2-METHYL- |
| S | 13552-44-8 | 4,4-METHYLENEDIANILINE AND ITS DIHYDROCHLORIDE |
| | 4685-14-7 | 4,4′-BIPYRIDINIUM, 1,1′-DIMETHYL- |
| E | 2074-50-2 | 4,4′-BIPYRIDINIUM, 1,1′-DIMETHYL-, BIS(METHYL SULFATE) |
| E | 1910-42-5 | 4,4′-BIPYRIDINIUM, 1,1′-DIMETHYL-, DICHLORIDE |
| E | 80-05-7 | 4,4′-ISOPROPYLIDENEDIPHENOL |
| E | 131-89-5 | 4,6-DINITRO-O-CYCLOHEXYLPHENOL |
| E | 57-74-9 | 4,7-METHANO-1H-INDENE, 1,2,4,5,6,7,8,8-OCTACHLORO-2,3,3A,4,7,7A-HEXAHYDRO- |
| E | 76-44-8 | 4,7-METHANO-1H-INDENE, 1,4,5,6,7,8,8-HEPTACHLORO-3A,4,7,7A-TETRAHYDRO- |
| | 77-73-6 | 4,7-METHANO-1H-INDENE, 3A,4,7,7A-TETRAHYDRO- |
| S | 91681-63-9 | 4H-1-BENZOPYRAN-4-ONE, 6-(2,3-DIHYDROXY-3-METHYLBUTYL)-3-(2,4-DIHYDROXYPHENYL)-7-HYDROXY- |
| | 638-17-5 | 4H-1,3,5-DITHIAZINE, DIHYDRO-2,4,6-TRIMETHYL-, (2.ALPHA.,4.ALPHA.,6.ALPHA.)- |
| | 552-30-7 | 5-ISOBENZOFURANCARBOXYLIC ACID, 1,3-DIHYDRO-1,3-DIOXO- |
| S | 23214-92-8 | 5,12-NAPHTHACENEDIONE, 10-[(3-AMINO-2,3,6-TRIDEOXY-.ALPHA.-L-LYXO-HEXOPYRANOSYL)OXY]-7,8,9,10-TETRAHYDRO-6,8,11-TRIHYDROXY-8-(HYDROXYACETYL)-1-METOXY-, (8S-CIS)- |
| S | 25316-40-9 | 5,12-NAPHTHACENEDIONE, 10-[(3-AMINO-2,3,6-TRIDEOXY-.ALPHA.-L-LYXO-HEXOPYRANOSYL)OXY]-7,8,9,10-TETRAHYDRO-6,8,11-TRIHYDROXY-8-(HYDROXYACETYL)-1-METOXY-, HYDROCHLORIDE, (8S-CIS)- |
| ES | 20830-81-3 | 5,12-NAPHTHACENEDIONE, 8-ACETYL-10-[(3-AMINO-2,3,6-TRIDEOXY-.ALPHA.-L-LYXO-HEXOPYRANOSYL)OXY]- 7,8,9,10-TETRAHYDRO-6,8,11-TRIHYDROXY-1-METHOXY-, (8-CIS)- |
| | 112-98-1 | 5,8,11,14,17-PENTAOXAHENEICOSANE |
| S | 62450-07-1 | 5H-PYRIDO[4,3-B]INDOL-3-AMINE, 1-METHYL- |
| S | 62450-06-0 | 5H-PYRIDO[4,3-B]INDOL-3-AMINE, 1,4-DIMETHYL- |
| E | 115-29-7 | 6,9-METHANO-2,4,3-BENZODIOXATHIEPIN, 6,7,8,9,10,10-HEXACHLORO-1,5,5A,6,9,9A-HEXAHYDRO-, 3-OXIDE |
| E | 33213-65-9 | 6,9-METHANO-2,4,3-BENZODIOXATHIEPIN, 6,7,8,9,10,10-HEXACHLORO-1,5,5A,6,9,9A-HEXAHYDRO-, 3-OXIDE, (3.ALPHA.,5A.ALPHA.,6.BETA.,9.BETA.,9A.ALPHA.)- |
| E | 959-98-8 | 6,9-METHANO-2,4,3-BENZODIOXATHIEPIN, 6,7,8,9,10,10-HEXACHLORO-1,5,5A,6,9,9A-HEXAHYDRO-, 3-OXIDE, (3.ALPHA.,5A.BETA.,6.ALPHA.,9.ALPHA.,9A.BETA.)- |
| E | 1031-07-8 | 6,9-METHANO-2,4,3-BENZODIOXATHIEPIN, 6,7,8,9,10,10-HEXACHLORO-1,5,5A,6,9,9A-HEXAHYDRO-, 3,3-DIOXIDE |
| E | 1563-66-2 | 7-BENZOFURANOL, 2,3-DIHYDRO-2,2-DIMETHYL-, METHYLCARBAMATE |
| | 106-87-6 | 7-OXABICYCLO[4.1.0]HEPTANE, 3-OXIRANYL- |
| ES | 194-59-2 | 7H-DIBENZO[C,G]CARBAZOLE |
| S | 10048-13-2 | 7H-FURO[3′,2′:4,5]FURO[2,3-C]XANTHEN-7-ONE, 3A,12C-DIHYDRO-8-HYDROXY-6-METHOXY-, (3AR-CIS)- |
| | 112-80-1 | 9-OCTADECENOIC ACID (Z)- |
| | 26094-13-3 | 9-OCTADECENOIC ACID (Z)-, COMPD. WITH 1-BUTANAMINE (1:1) |
| | 140-04-5 | 9-OCTADECENOIC ACID, 12-(ACETYLOXY)-, BUTYL ESTER, [R-(Z)]- |
| ES | 82-28-0 | 9,10-ANTHRACENEDIONE, 1-AMINO-2-METHYL- |
| ES | 117-79-3 | 9,10-ANTHRACENEDIONE, 2-AMINO- |
| S | 129-15-7 | 9,10-ANTHRACENEDIONE, 2-METHYL-1-NITRO- |
| E | 86-73-7 | 9H-FLUORENE |

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**E—ENVIRONMENTAL HAZARD**
**S—SPECIAL HAZARDOUS SUBSTANCE**

**Authority**

The provisions of this Appendix A amended under section 3 of the act of October 5, 1984 (P. L. 734, No. 159) (35 P. S. § 7303).

**Source**

The provisions of this Appendix A adopted August 1, 1986, effective August 2, 1986, 16 Pa.B. 2909; amended August 11, 1989, effective January 1, 1990, 19 Pa.B. 3513. Immediately preceding text appears at serial pages (110017) to (110050).

[Next page is 401-1.]



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