

Minnesota Attorney General: Administrative Rules Proceedings

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SF-00006-03

STATE OF MINNESOTA

DEPARTMENT

Office Memorandum

ATTORNEY GENERAL

TO: MAMIE S. SEGALL
Special Assistant
Attorney General

DATE: 3/23/87

FROM: MIKE MILES
Assistant Attorney General

PHONE: 6-6555

SUBJECT: Special Assistant
Attorney General

In the Matter of the Adopted Rules Relating to
Hazardous Waste Codification

The above-referenced rule has been approved as to its legality by the Attorney General on March 18, 1987.

Enclosed is the agency's copy of the approved rule. This office has already filed two copies with the Secretary of State, who will forward one copy to the Revisor of Statutes. The fourth is being retained by this division of the Attorney General's Office for its records.

Also enclosed are any petitions, requests, submission or comments received by the agency and any extra copies of documents which the agency submitted to the Attorney General.

In order for a permanent rule without a hearing to become effective, your agency must publish a notice of adoption in the State Register in accordance with Minn. Stat. § 14.27. An emergency rule becomes effective five working days after approval by the Attorney General; however, the agency must publish a notice in the State Register in accordance with Minn. Stat. § 14.34.

If you have any questions in this regard, please contact me.

MJC:nah

Enclosures

cc: Maryanne Hruby
Executive Director
Legislative Commission to Review
Adminsitrative Rules

Duane Harves
Chief Administrative Law Judge
Office of Administrative Hearings

RULE REVIEW CHECKLIST

File No. 1354 Docket No. 05.0009.0696

DATE RECEIVED 3/04/87
REVIEW DATE 3/13/87
DUE DATE 3/18/87

APPROVED 3/18/87
DISAPPROVED
WITHDRAWN

ADOPTED W/O HEARING ✓
EMERGENCY RULE

REVISOR APPROVED
REVISOR DISAPPROVED
FILED W/SEC. STATE
RETURNED TO AGENCY

✓ Rule as adopted (4 copies)

✓ Notice to Solicit Outside Information/Opinion
Sept 16, 1985 Date published in State Register
Comments

~~Petition for Adoption of a Rule~~

✓ Board's Authorizing Resolution

✓ Proposed rule Not yet called Revisor's Certificate

✓ Notice of Intent to Adopt Rule
& 116.07 subd 4 Statutory Authority
Yes Small business statement
No Expenditure of public money statement
Yes Signature

✓ Statement of Need and Reasonableness

✓ Affidavit of Mailing Notice of Intent to Adopt Rule
Nov 19, 1986 Date (30)/25 days before adoption

✓ Publication in State Register
Nov 24, 1986 Date 30/25 days before adoption

✓ Resolution Adopting

✓ Findings of Fact, Conclusions & Order Adopting (separate)
Jan 27, 1987 Date

✓ Written requests, submissions or comments

✓ Declaration of attorney
Mamie Segall Name of SAAG representing agency

~~Notice of Submission to Attorney General~~

✓ ~~Affidavit of Mailing Notice to Attorney General~~

✓ Affidavit Re requests for notification as to submission to AG
" " Comments received.

✓

Pollution Control Agency

Adopted Permanent Rules Relating to Hazardous Waste Codification

Rules as Adopted

7001.0150 TERMS AND CONDITIONS OF PERMITS.

Subpart 1. [Unchanged.]

Subp. 2. **Special conditions.** Each draft and final permit must contain conditions necessary for the permittee to achieve compliance with applicable Minnesota or federal statutes or rules and any conditions that the agency determines to be necessary to protect human health and the environment. If applicable to the circumstances, the conditions must include:

A. and B. [Unchanged.]

C. A requirement that the permittee retain the following items for at least three years from the date of the sample, measurement, report, certification, or application, after which time this period must be automatically extended during the course of an unresolved enforcement action or at the request of the director:

(1) and (2) [Unchanged.]

(3) records of the date, exact location, and time of monitoring and testing which is related to compliance with the terms and conditions of the permit or compliance with Minnesota and federal pollution control statutes and rules, the name of the individual who performed the sampling or measurements, the date the analysis was performed, the name of the individual who performed the analysis, the analytical techniques or methods used, and the results of the analysis;

(4) if applicable, reports required by part 7001.0720, subpart 2, item E; and

(5) if applicable, the certification required by part 7045.0478, subpart 3.

D. [Unchanged.]

Subp. 3. [Unchanged.]

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7001.0520 PERMIT REQUIREMENTS.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Permits by rule.** The owner or operator of the following facilities shall be deemed to have obtained a hazardous waste facility permit without making application for it unless the director finds that the following conditions are not met:

A. [Unchanged.]

B. Publicly owned treatment works that accept hazardous waste for treatment, if the owner or operator:

(1) and (2) [Unchanged.]

(3) complies with parts 7045.0452, subpart 2; 7045.0474; 7045.0476; 7045.0478, subparts 1, 2, and 3, items A to C; and 7045.0482, subparts 1, 2, and 3; and for National Pollutant Discharge Elimination System permits issued after November 8, 1984, part 7045.0485; and

(4) accepts a waste that meets all applicable federal, Minnesota, and local pretreatment requirements for that waste if it were to be discharged into the publicly owned treatment works through a sewer, pipe, or other conveyance.

C. and D. [Unchanged.]

Subp. 4. [Unchanged.]

7001.0590 PART B INFORMATION REQUIREMENTS FOR SURFACE IMPOUNDMENTS.

Except as otherwise provided in part 7045.0532, subpart 1, if the applicant proposes to store, treat, or dispose of hazardous waste in surface impoundment facilities, the applicant shall submit detailed plans and specifications accompanied by an engineering report which collectively includes the following information in addition to the information required by part 7001.0560:

A. to K. [Unchanged.]

L. Information reasonably ascertainable by the owner or operator on the potential for the public to be exposed to hazardous wastes or hazardous waste constituents through

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releases related to the unit. At a minimum, the information must address:

(1) reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(2) the potential pathways of human exposure to hazardous wastes or constituents resulting from releases described in subitem (1); and

(3) the potential magnitude and nature of the human exposure resulting from the releases.

M. Owners and operators of surface impoundments who have already submitted a Part B application and were required to submit the exposure information required in item L to EPA by Code of Federal Regulations, title 40, section 270.10(j), must also submit that information to the director.

7001.0600 PART B INFORMATION REQUIREMENTS FOR WASTE PILES.

Except as otherwise provided by part 7045.0534, subpart 1, if the applicant proposes to store or treat hazardous waste in waste piles, the applicant shall furnish the information required by items A to M in addition to the information required by part 7001.0560:

A. [Unchanged.]

B. If an exemption is sought to parts 7045.0534, subparts 2, items A and B, and 3; and 7045.0484 as provided by part 7045.0534, subpart 1, an explanation of compliance with part 7045.0534, subpart 1, items A to D or detailed plans and an engineering report describing how the requirements of part 7045.0534, subpart 1, items A to D will be met.

C. to L. [Unchanged.]

M. A description of how each waste pile, including the liners and appurtenances for control of run-on and run-off will be inspected in order to meet the requirements of part 7045.0534, subpart 6. This information shall be included in the inspection plan required by part 7001.0560, item E.

7001.0620 PART B INFORMATION REQUIREMENTS FOR LANDFILLS.

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Except as otherwise provided by part 7045.0538, subpart 1, if the applicant proposes to dispose of hazardous waste in a landfill, the applicant shall furnish the information designated in items A to L in addition to the information required by part 7001.0560:

A. to G. [Unchanged.]

H. If bulk or noncontainerized liquid waste or waste containing free liquids were landfilled before May 8, 1985, and an explanation of compliance with the requirements of part 7045.0538, subpart 10 was submitted to EPA by Code of Federal Regulations, title 40, section 270.21(h), that explanation must also be submitted to the director.

I. and J. [Unchanged.]

K. Information reasonably ascertainable by the owner or operator on the potential for the public to be exposed to hazardous constituents through releases related to the unit. At a minimum, the information must address:

(1) reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(2) the potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described in subitem (1);

(3) the potential magnitude and nature of the human exposure resulting from the releases.

L. Owners or operators of a landfill who have already submitted a Part B application and were required to submit the exposure information required in item K to EPA by Code of Federal Regulations, title 40, section 270.10(j), must also submit that information to the director.

7001.0650 INTERIM STATUS.

Subpart 1. **Qualifying for interim status.** Except as provided in subpart 2, during the period after the submission of Part A of a hazardous waste facility permit application to the Environmental Protection Agency or to the director and prior to

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a final determination by the agency on the permit application, the owner or operator of an existing hazardous waste facility or a facility in existence on the effective date of statutory or regulatory amendments under the Resource Conservation and Recovery Act that render the facility subject to the requirement to have a hazardous waste facility permit shall be considered to be in compliance with the requirement to obtain a permit if the director finds that the Environmental Protection Agency has granted the owner or operator interim status or if the director finds:

A. that the owner or operator has submitted a timely and complete Part A of the hazardous waste facility permit application to the Environmental Protection Agency or to the director;

B. that the owner or operator is in compliance with parts 7045.0552 to 7045.0642;

C. that the agency or the EPA has not previously refused to issue a new or modified hazardous waste facility permit for the facility; and

D. that the agency or the EPA has not previously revoked without reissuance a hazardous waste facility permit for the facility.

Subp. 2. to 6. [Unchanged.]

Subp. 7. **Termination of interim status.** Interim status terminates automatically when the agency has taken final administrative action on the permit application or when terminated by Code of Federal Regulations, title 40, section 270.73(c). The following constitute justification for the director to commence proceedings to terminate interim status:

A. and B. [Unchanged.]

7001.0712 RESEARCH, DEVELOPMENT, AND DEMONSTRATION PERMITS.

Subpart 1. **Scope.** This part applies to research, development, or demonstration facilities other than land treatment demonstration facilities governed by part 7001.0710.

Subp. 2. **Permit requirement.** A person who desires to own

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or operate a research, development, or demonstration facility utilizing an innovative and experimental hazardous waste treatment technology or process for which permit standards have not been adopted in chapter 7045 shall request a permit from the agency.

Subp. 3. **Terms of permit.** A permit governed by this part is effective for a fixed term not to exceed one year. At the request of the permittee, the director shall renew the permit for one additional year if the director finds that the permittee is in compliance with the conditions of the permit and that the operation of the facility does not pose a threat to human health and the environment. In no event shall the director renew the permit more than three times.

Subp. 4. **Conditions of permit.** The permit shall authorize the receipt and treatment by the facility of only those types and quantities of hazardous waste that the director considers necessary for the purpose of determining the efficiency and performance capabilities of the technology or process and the effects of the technology or process on human health and the environment.

The permit shall contain all applicable special and general conditions in parts 7001.0150 and 7001.0720 and conditions concerning financial responsibility under parts 7045.0498 to 7045.0524, closure, and remedial action. The permit shall provide for the immediate termination of all operations at the facility at any time upon receipt of notification from the director that termination of operations is necessary to protect human health or the environment.

7001.0720 TERMS AND CONDITIONS OF HAZARDOUS WASTE FACILITY PERMITS.

Subpart 1. **Term of permit.** Except as provided in part 7001.0712, subpart 3, a hazardous waste facility permit is effective for a fixed term not to exceed five years.

Subp. 2. [Unchanged.]

7045.0020 DEFINITIONS.

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Subpart 1. to 55. [Unchanged.]

Subp. 55a. **Marketer.** "Marketer" means a person who, for the purpose of burning for energy recovery, processes, blends, or distributes waste oil, used oil, or hazardous waste. "Marketer" includes a generator who processes, distributes, or blends such fuel directly to a person who burns it.

Subp. 56. to 102. [Unchanged.]

Subp. 102a. **Waste oil.** "Waste oil" means virgin oil that is discarded before use.

Subp. 103. to 108. [Unchanged.]

7045.0075 PETITIONS.

Subpart 1. [Unchanged.]

Subp. 2. **Petitions to exclude a waste produced at a particular facility.** Petitions to exclude a waste produced at a particular facility are as follows:

A. Any person seeking to exclude a waste at a particular generating facility from regulation under this chapter may petition under these provisions. The petitioner must demonstrate to the satisfaction of the agency that the waste produced by a particular generating facility does not meet any of the criteria under which the waste was listed as a hazardous waste and, in the case of an acutely hazardous waste meeting the criteria in part 7045.0129, subpart 1, item B, that it also does not meet the criteria of part 7045.0129, subpart 1, item C. In determining whether to exclude a waste as requested by the petition, the agency must consider the factors considered at the time the waste was listed and, if the agency has reason to believe that other factors, including additional constituents, could also cause the waste to be hazardous, the agency must also consider these other factors. In order to exclude a waste as requested by the petition, the agency must determine that no factor exists that warrants retaining the classification of the waste as hazardous. A waste which is so excluded may still, however, be a hazardous waste by operation of part 7045.0131.

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B. and C. [Unchanged.]

D. If the waste is listed with codes "I," "C," "R," or "E" in part 7045.0135, the petitioner must show that the waste does not exhibit a relevant characteristic defined in part 7045.0131 using any applicable methods prescribed in part 7045.0131. The petitioner also must show that the waste does not exhibit any of the other characteristics in part 7045.0131 using any applicable method prescribed in part 7045.0131. In determining whether to exclude a waste as requested by the petition, the agency must consider the factors considered at the time the waste was listed and, if the agency has reason to believe that other factors, including additional constituents, could also cause the waste to be hazardous, the agency must also consider these other factors. In order to exclude a waste as requested by the petition, the agency must determine that no factor exists that warrants retaining the classification of the waste as hazardous. A waste which is so excluded, however, may still be a hazardous waste by operation of part 7045.0131.

E. If the waste is listed with code "T" in part 7045.0135, subitems (1) to (4) apply.

(1) The petitioner must demonstrate that the waste:

(a) does not contain the constituent or constituents that caused the agency to list the waste, using the appropriate test methods prescribed in Code of Federal Regulations, title 40, part 261, appendix III; or

(b) although containing one or more of the hazardous constituents, as defined in part 7045.0141, that caused the agency to list it, the waste does not meet the criterion of part 7045.0129, subpart 1, item C, when considering the factors in part 7045.0129, subpart 1, item C, subitems (1) to (11).

(2) In determining whether to exclude a waste as requested by the petition, the agency must consider the factors considered at the time the waste was listed and, if the agency has reason to believe that other factors, including additional

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constituents, could also cause the waste to be hazardous, the agency must also consider these other factors. In order to exclude a waste as requested by the petition, the agency must determine that no factor exists that warrants retaining the classification of the waste as hazardous.

(3) The petitioner must demonstrate that the waste does not exhibit any of the characteristics defined in part 7045.0131 using any applicable methods prescribed therein.

(4) A waste which is so excluded, however, still may be a hazardous waste by operation of part 7045.0131.

F. If the waste is listed with the code "H" in part 7045.0135, the petitioner must demonstrate that the waste does not meet the criterion of part 7045.0129, subpart 1, item B.

(1) In determining whether to exclude a waste as requested by the petition, the agency must consider the factors considered at the time the waste was listed and, if the agency has reason to believe that other factors, including additional constituents, could also cause the waste to be hazardous, the agency must also consider these other factors. In order to exclude a waste as requested by the petition, the agency must determine that no factor exists that warrants retaining the classification of the waste as hazardous.

(2) The petitioner must demonstrate that the waste does not exhibit any of the characteristics defined in part 7045.0131 using any applicable methods prescribed therein.

(3) A waste which is so excluded, however, still may be a hazardous waste by operation of part 7045.0131.

G. [Unchanged.]

H. After receiving a petition for an exclusion, the agency or the director may request any additional information which it may reasonably require to evaluate the petition. An exclusion will only apply to the waste generated at the individual facility covered by the demonstration and will not apply to waste from any other facility. The agency may exclude only part of the waste for which the demonstration is submitted when it has reason to believe that variability of the waste

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justifies a partial exclusion.

Subp. 3. and 4. [Unchanged.]

7045.0080 DATA AVAILABILITY.

Subpart 1. **Applicability.** The following apply to requests to the Minnesota Pollution Control Agency for information relating to facilities and sites for treatment, storage, and disposal of hazardous waste.

Subp. 2. **Response to requests.** Except as provided in subpart 3, the director shall issue a written response to a requester of information within ten working days of receiving the request for information. The written response shall state what information will and will not be provided and shall state the reason for denying any portion of the request.

Subp. 3. **Extensions.** The following provisions apply to extensions of time to respond to requests for information:

A. If the request for information does not reasonably identify the information sought, the director shall so notify the requester. There shall be excluded from the ten-day response period established under subpart 2, or any extension to that response period provided under item B, any time that elapses between the date that a requester is notified by the director that the request does not reasonably identify the records sought, and the date that the requester furnishes a reasonable identification.

B. In circumstances in which an extension is necessary due to one or more of the following reasons, the ten-day response period established in subpart 2 shall be extended by the director for a period of days commensurate with the additional response time required, not to exceed ten additional working days:

(1) there is a need to search for and collect the requested records from field regional offices or other establishments that are separate from the agency's central office;

(2) there is a need to search for, collect, and

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appropriately examine a voluminous amount of separate and distinct records which are demanded in a single request; or

(3) there is a need for consultation with another agency having a substantial interest in the determination of the request.

The director must notify the requester within the initial ten-day period that the ten-day extension is required and must state the reasons for the extension and the date by which the agency expects to be able to issue its response to the request for information.

Subp. 4. **Failure to act.** If the director fails to issue a response within the response time provided in subpart 2, or an extension provided under subpart 3, a requester may commence an action under Minnesota Statutes, section 13.08 to obtain the requested information.

7045.0102 MIXTURES OF HAZARDOUS AND NONHAZARDOUS WASTES.

Except as provided in parts 7045.0125, subpart 10 and 7045.0665, subpart 5, mixtures of hazardous and nonhazardous wastes are as follows:

A. to G. [Unchanged.]

7045.0120 EXEMPT WASTES.

The following wastes may be stored, labeled, transported, treated, processed, and disposed of without complying with the requirements of this chapter:

~~A. household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (for example, refuse-derived fuel) or reused. "Household waste" means any material including garbage, trash, and sanitary wastes in septic tanks derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day use recreation areas. A resource recovery facility managing municipal solid waste shall not be considered to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this~~

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~~chapter, if the facility:~~ normal refuse from households including garbage, trash, and sanitary wastes in septic tanks. Households include single and multiple residences, hotels, and motels;

~~(1) Receives or burns only:~~

~~(a) household waste from single and multiple dwellings, hotels, motels, and other residential sources; and~~

~~(b) solid waste from commercial or industrial sources that does not contain hazardous waste;~~

~~(2) Does not accept hazardous wastes and the owner or operator of the facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in the facility;~~

~~(3) The owner or operator complies with the following requirements in the event hazardous waste is inadvertently received at the facility:~~

~~(a) the owner or operator makes an effort to determine the source of the hazardous waste, to return the waste to the generator and to notify the agency of the responsible generator; and, it it is not possible for the owner or operator to return the waste to the generator, the owner or operator maintains a record of known hazardous waste received with a description of the waste, quantity received, and date received;~~

~~(b) the owner or operator complies with the following requirements for hazardous waste generators: parts 7045.0221, 7045.0261, 7045.0265, 7045.0270, 7045.0275, 7045.0292, subpart 1, items B to G, 7045.0294, and 7045.0296;~~

~~(c) all hazardous wastes are shipped for treatment, storage, or disposal to a permitted facility within one year after receipt; and~~

~~(d) the owner or operator has a solid waste permit, if required;~~

~~Such inadvertently received hazardous waste is not subject to the quantity limitations of part 7045.0219, subpart 1, nor the accumulation provisions of part 7045.0292, subpart 1, item A;~~

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~~(4) The owner or operator evaluates the ash in accordance with the procedures in part 7045.0214, subpart 2, and the solid waste permit conditions.~~

B. to P. [Unchanged.]

7045.0125 MANAGEMENT OF WASTE BY USE, REUSE, RECYCLING, AND RECLAMATION.

Subpart 1. to 9. [Unchanged.]

Subp. 10. **Hazardous waste which is beneficially used by burning.** Hazardous waste that is transported or stored before a beneficial use by burning is subject to regulation under the following:

A. and B. [Unchanged.]

C. A cement kiln that burns hazardous waste is subject to the following requirements:

(1) No fuel that contains any hazardous waste may be burned in any cement kiln unless the kiln fully complies with the thermal treatment standards of part 7045.0542.

(2) This requirement does not apply to petroleum refinery hazardous wastes containing oil that are converted into petroleum coke at the same facility at which the wastes were generated unless the resulting coke product would exhibit one or more of the characteristics of hazardous waste in part 7045.0131.

D. No person who produces, distributes, or markets any fuel that contains a hazardous waste may distribute or market the fuel if the invoice or bill of sale fails:

(1) to bear the following statement: "WARNING: THIS FUEL CONTAINS HAZARDOUS WASTE"; and

(2) to list the hazardous waste contained therein. The statement must be located in a conspicuous place on every invoice or bill of sale and must appear in conspicuous and legible type in contrast by typography, layout, or color with other printed matter on the invoice or bill of sale.

Subp. 11. **Hazardous wastes from petroleum refining.** The following hazardous wastes that are produced from petroleum refining are not subject to the labeling requirements of subpart

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10, item D.

A. Fuels produced from petroleum refining hazardous waste containing oil if:

(1) the materials are generated and reinserted on-site into the refining process;

(2) the contaminants are removed; and

(3) refining waste containing oil is converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products and which is classified as a number SIC 2911 facility under the Office of Management and Budget Standard Industrial Classification Manual.

B. Fuels produced from oily materials resulting from normal petroleum refining production and transportation practices; if

(1) contaminants are removed; and

(2) the oily materials are converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products and which is classified as a number SIC 2911 facility under the Office of Management and Budget Standard Industrial Classification Manual.

C. Hazardous wastes containing oil which are converted into petroleum coke at the same facility at which the wastes were generated, unless the resulting coke product would exceed one or more of the characteristics of hazardous waste in part 7045.0131.

7045.0135 LISTS OF HAZARDOUS WASTES.

Subpart 1. [Unchanged.]

Subp. 2. **Hazardous wastes from nonspecific sources.** Hazardous wastes from nonspecific sources are listed as follows:

Hazardous Waste No.	Hazardous Waste	Hazard Code
Generic:		
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons;	(T)

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		all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more by volume of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	
	F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more by volume of one or more of the above halogenated solvents or those solvents listed in F001, F004, and F005; and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
	F003	The following spent nonhalogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent nonhalogenated solvents; and all spent solvent mixtures/blends, containing, before use, one or more of the above nonhalogenated solvents and a total of ten percent or more by volume of one or more of those solvents listed in F001, F002, F004, and F005; and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I)
	F004	The following spent nonhalogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more by volume of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002, and F005; and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
	F005	The following spent nonhalogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more by volume of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002, and F004; and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I,T)
	F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum, (2) tin plating on carbon steel, (3) zinc plating (segregated basis) on carbon steel, (4) aluminum or zinc-aluminum plating on carbon steel, (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel, and (6) chemical etching and milling of aluminum	(T)
	F007	Spent cyanide plating bath solutions from electroplating operations	(R,T)
	F008	Plating bath sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process	(R,T)
	F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	(R,T)
	F010	Quenching bath residues from oil baths from metal heat-treating operations where cyanides are used in the process	(R,T)
	F011	Spent cyanide solutions from salt bath	(R,T)

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	pot cleaning from metal heat-treating operations	
F012	Quenching wastewater treatment sludges from metal heat-treating operations where cyanides are used in the process	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum	(T)
F020	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-tri-chlorophenol.	(H)
F021	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- and tetrachlorophenols. This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol.	(H)
F024	Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor cleanout wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. This does not include light ends, spent filters and filter aids, spent dessicants, wastewater, wastewater treatment sludges, and spent catalysts.	(T)
F026	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with hazardous waste Nos. F020, F021, F022, F023, F026, and F027.	(T)

Subp. 3. **Hazardous waste from specific sources.** Hazardous wastes from specific sources are listed as follows:

Industry and Hazardous Waste No.	Hazardous Waste	Hazard Code
Wood Preservation:		

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K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol	(T)
	Inorganic Pigments:	
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments, anhydrous and hydrated	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments	(T)
K008	Oven residue from the production of chrome oxide green pigments	(T)
	Organic Chemicals:	
K009	Distillation bottoms from the production of acetaldehyde from ethylene	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(R,T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	(R,T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(T)
K015	Still bottoms from the distillation of benzyl chloride	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(T)
K024	Distillation bottoms from the production of phthalic anhydride from napthalene	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production	(R,T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and	(T)

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		perchloroethylene	
	K083	Distillation bottoms from aniline production	(T)
	K103	Process residues from aniline extraction from the production of aniline	(T)
	K104	Combined wastewater streams generated from nitrobenzene/aniline production	(T)
	K085	Distillation or fractionation column bottoms from the production of chlorobenzenes	(T)
	K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes	(T)
	K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	(C,T)
	K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
	K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
	K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
	K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
	K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine	(T)
	K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene	(T)
	K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)
	K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)
	Inorganic Chemicals:		
	K071	Brine purification muds from the mercury cell process in chlorine production, when separately pre-purified brine is not used	(T)
	K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production	(T)
	K106	Wastewater treatment sludge from the mercury cell process in chlorine production	(T)
	Pesticides:		
	K031	By-product salts generated in the production of monosodium methanearsonate (MSMA) and cacodylic acid	(T)
	K032	Wastewater treatment sludge from the production of chlordane	(T)
	K033	Wastewater and scrub water from the chlorination of cyclo-pentadiene in the production of chlordane	(T)
	K034	Filter solids from the filtration of hexachloro-cyclopentadiene in the production of chlordane	(T)
	K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	(T)
	K035	Wastewater treatment sludges generated in the production of creosote	(T)
	K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	(T)
	K037	Wastewater treatment sludges from the production of disulfoton	(T)
	K038	Wastewater from the washing and stripping of phorate production	(T)

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K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate	(T)
K040	Wastewater treatment sludge from the production of phorate	(T)
K041	Wastewater treatment sludge from the production of toxaphene	(T)
K098	Untreated process wastewater from the production of toxaphene	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
K099	Untreated wastewater from the production of 2,4-D	(T)
Explosives:		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives	(R)
K045	Spent carbon from the treatment of wastewater containing explosives	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds	(T)
K047	Pink/red water from operations involving 2,4,6-trinitro-toluene (TNT)	(R)
Petroleum Refining:		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	(T)
K049	Slop oil emulsion solids from the petroleum refining industry	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
K051	American Petroleum Institute separator sludge from the petroleum refining industry as specified in The Manual on Disposal of Refinery Wastes, volume 1, issued by the American Petroleum Institute, (Washington, D.C., 1969), available at the State of Minnesota Law Library	(T)
K052	Tank bottoms (leaded) from the petroleum refinery industry	(T)
Iron and Steel:		
K061	Emission control dust or sludge from the primary production of steel in electric furnaces	(T)
K062	Spent pickle liquor generated by steel finishing operations of plants that produce iron or steel	(C,T)
Secondary Lead:		
K069	Emission control dust or sludge from secondary lead smelting	(T)
K100	Waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting	(T)
Veterinary Pharmaceuticals:		
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
Ink Formulation:		
K086	Solvent washes and sludges, caustic washes and	(T)

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sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead

Coke:

K060	Ammonia still lime sludge from coking operations	(T)
K087	Decanter tank tar sludge from coking operations	(T)

Subp. 4. **Discarded commercial chemical products, off-specification species, containers, and spill residues.** The following materials or items are hazardous wastes when they are discarded or intended to be discarded; when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment; or when, in lieu of their original use, they are produced for use as, or as a component of a fuel, distributed for use as a fuel, or burned as a fuel.

A. to D. [Unchanged.]

E. the commercial chemical products or manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates referred to in items A to D and listed in the following table, are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, items B and C. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), and R (reactivity). Absence of a letter indicates that the compound is listed only for acute toxicity. These wastes and their corresponding hazardous waste numbers are listed as follows:

Hazardous Wastes from Commercial Chemical Products

Hazardous Waste No.	Substance	Hazard Code
P023	Acetaldehyde, chloro-	
P002	Acetamide, N-(aminothioxomethyl)-	
P057	Acetamide, 2-fluoro-	
P058	Acetic acid, fluoro-, sodium salt	
P066	Acetimidic acid, N-[(methylcarbamoyl)oxy] thio-, methyl ester	
P001	3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin and salts when present at concentrations greater than 0.3 percent	
P002	1-Acetyl-2-thiourea	
P003	Acrolein	
P070	Aldicarb	
P004	Aldrin	
P005	Allyl alcohol	
P006	Aluminum phosphide	(R,T)

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P007	5-(Aminomethyl)-3-isoxazolol	
P008	4-Aminopyridine	
P009	Ammonium picrate	(R)
P119	Ammonium vanadate	
P010	Arsenic acid	
P012	Arsenic (III) oxide	
P011	Arsenic (V) oxide	
P011	Arsenic pentoxide	
P012	Arsenic trioxide	
P038	Arsine, diethyl-	
P054	Aziridine	
P013	Barium cyanide	
P024	Benzenamine, 4-chloro-	
P077	Benzenamine, 4-nitro-	
P028	Benzene, (chloromethyl)-	
P042	1,2-Benzenediol, 4-[1-hydroxy-2-(methyl-amino)ethyl]-	
P014	Benzenethiol	
P028	Benzyl chloride	
P015	Beryllium dust	
P016	Bis(chloromethyl) ether	
P017	Bromoacetone	
P018	Brucine	
P021	Calcium cyanide	
P123	Camphene, octachloro-	
P103	Carbamimidoselenoic acid	
P022	Carbon bisulfide	
P022	Carbon disulfide	
P095	Carbonyl chloride	
P033	Chlorine cyanide	
P023	Chloroacetaldehyde	
P024	p-Chloroaniline	
P026	1-(o-Chlorophenyl)thiourea	
P027	3-Chloropropionitrile	
P029	Copper cyanides	
P030	Cyanides (soluble cyanide salts), not elsewhere specified	
P031	Cyanogen	
P033	Cyanogen chloride	
P036	Dichlorophenylarsine	
P037	Dieldrin	
P038	Diethylarsine	
P039	O,O-Diethyl S-[2-(ethylthio)ethyl] phosphorodithioate	
P041	Diethyl-p-nitrophenyl phosphate	
P040	O,O-Diethyl O-pyrazinyl phosphorothioate	
P043	Diisopropyl fluorophosphate	
P044	Dimethoate	
P045	3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino)carbonyl] oxime	
P071	O,O-Dimethyl O-p-nitrophenyl phosphorothioate	
P082	Dimethylnitrosamine	
P046	alpha, alpha-Dimethylphenethylamine	
P047	4,6-Dinitro-o-cresol and salts	
P034	4,6-Dinitro-o-cyclohexylphenol	
P048	2,4-Dinitrophenol	
P020	Dinoseb	
P085	Diphosphoramide, octamethyl-	
P039	Disulfoton	
P049	2,4-Dithiobiuret	
P109	Dithiopyrophosphoric acid, tetraethyl ester	
P050	Endosulfan	
P088	Endothall	
P051	Endrin	
P042	Epinephrine	
P046	Ethanamine, 1,1-dimethyl-2-phenyl-	
P084	Ethenamine, N-methyl-N-nitroso-	
P101	Ethyl cyanide	
P054	Ethylenimine	
P097	Famphur	
P056	Fluorine	
P057	Fluoroacetamide	
P058	Fluoroacetic acid, sodium salt	

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P065	Fulminic acid, mercury(II) salt	(R,T)
P059	Heptachlor	
P051	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene	
P037	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,exo-1,4:5,8-dimethanonaphthalene	
P060	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,endo-dimethanonaphthalene	
P004	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,exo-dimethanonaphthalene	
P060	Hexachlorohexahydro-endo,endo-dimethanonaphthalene	
P062	Hexaethyl tetraphosphate	
P116	Hydrazinecarbothioamide	
P068	Hydrazine, methyl-	
P063	Hydrocyanic acid	
P063	Hydrogen cyanide	
P096	Hydrogen phosphide	
P064	Isocyanic acid, methyl ester	
P007	3(2H)-Isoxazolone, 5-(aminomethyl)-	
P092	Mercury, (acetato-O)phenyl-	
P065	Mercury fulminate	(R,T)
P016	Methane, oxybis(chloro)-	
P112	Methane, tetranitro-	(R)
P118	Methanethiol, trichloro-	
P059	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	
P066	Methomyl	
P067	2-Methylaziridine	
P068	Methyl hydrazine	
P064	Methyl isocyanate	
P069	2-Methyllactonitrile	
P071	Methyl parathion	
P072	alpha-Naphthylthiourea	
P073	Nickel carbonyl	
P074	Nickel cyanide	
P074	Nickel(II) cyanide	
P073	Nickel tetracarbonyl	
P075	Nicotine and salts	
P076	Nitric oxide	
P077	p-Nitroaniline	
P078	Nitrogen dioxide	
P076	Nitrogen(II) oxide	
P078	Nitrogen(IV) oxide	
P081	Nitroglycerine	(R)
P082	N-Nitrosodimethylamine	
P084	N-Nitrosomethylvinylamine	
P050	5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro, cyclic sulfite	
P085	Octamethylpyrophosphoramide	
P087	Osmium oxide	
P087	Osmium tetroxide	
P088	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	
P089	Parathion	
P034	Phenol, 2-cyclohexyl-4,6-dinitro-	
P048	Phenol, 2,4-dinitro-	
P047	Phenol, 2,4-dinitro-6-methyl-, and salts	
P020	Phenol, 2,4-dinitro-6-(1-methylpropyl)-	
P009	Phenol, 2,4,6-trinitro-, ammonium salt	(R)
P036	Phenyl dichloroarsine	
P092	Phenylmercuric acetate	
P093	N-Phenylthiourea	
P094	Phorate	
P095	Phosgene	
P096	Phosphine	
P041	Phosphoric acid, diethyl p-nitrophenyl ester	
P044	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl]ester	
P043	Phosphorofluoridic acid, bis(1-methylethyl) ester	
P094	Phosphorothioic acid, O,O-diethyl S-	

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		(ethylthio)methyl ester	
	P089	Phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl) ester	
	P040	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	
	P097	Phosphorothioic acid, O,O-dimethyl O-[p-((dimethylamino)-sulfonyl)phenyl]ester	
	P110	Plumbane, tetraethyl-	
	P098	Potassium cyanide	
	P099	Potassium silver cyanide	
	P070	Propanal, 2-methyl-2-(methylthio)-, O- [(methylamino)carbonyl]oxime	
	P101	Propanenitrile	
	P027	Propanenitrile, 3-chloro-	
	P069	Propanenitrile, 2-hydroxy-2-methyl-	
	P081	1,2,3-Propanetriol, trinitrate-	(R)
	P017	2-Propanone, 1-bromo-	
	P102	Propargyl alcohol	
	P003	2-Propenal	
	P005	2-Propen-1-ol	
	P067	1,2-Propylenimine	
	P102	2-Propyn-1-ol	
	P008	4-Pyridinamine	
	P075	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts	
	P111	Pyrophosphoric acid, tetraethyl ester	
	P103	Selenourea	
	P104	Silver cyanide	
	P105	Sodium azide	
	P106	Sodium cyanide	
	P107	Strontium sulfide	
	P108	Strychnidin-10-one, and salts	
	P018	Strychnidin-10-one, 2,3-dimethoxy-	
	P108	Strychnine and salts	
	P115	Sulfuric acid, thallium(I) salt	
	P109	Tetraethyldithiopyrophosphate	
	P110	Tetraethyl lead	
	P111	Tetraethylpyrophosphate	
	P112	Tetranitromethane	(R)
	P062	Tetraphosphoric acid, hexaethyl ester	
	P113	Thallic oxide	
	P113	Thallium(III) oxide	
	P114	Thallium(I) selenide	
	P115	Thallium(I) sulfate	
	P045	Thiofanox	
	P049	Thioimidodicarbonic diamide	
	P014	Thiophenol	
	P116	Thiosemicarbazide	
	P026	Thiourea, (2-chlorophenyl)-	
	P072	Thiourea, 1-naphthalenyl-	
	P093	Thiourea, phenyl-	
	P123	Toxaphene	
	P118	Trichloromethanethiol	
	P119	Vanadic acid, ammonium salt	
	P120	Vanadium pentoxide	
	P120	Vanadium(V) oxide	
	P001	Warfarin when present at concentrations greater than 0.3 percent	
	P121	Zinc cyanide	
	P122	Zinc phosphide when present at concentrations greater than 10 percent	(R,T)

F. The commercial chemical products or manufacturing chemical intermediates, or off-specification commercial chemical products referred to in items A to D, and listed in the following table are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity

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exclusion defined in part 7045.0219, subpart 1, item A. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), R (reactivity), I (ignitability), and C (corrosivity). Absence of a letter indicates that the compound is listed only for toxicity. These wastes and their corresponding hazardous waste numbers are listed as follows:

Hazardous Wastes from Commercial Chemical Products

Hazardous Waste No.	Substance	Hazard Code
U001	Acetaldehyde	(I)
U034	Acetaldehyde, trichloro-	
U187	Acetamide, N-(4-ethoxyphenyl)-	
U005	Acetamide, N-9H-fluoren-2-yl-	
U112	Acetic acid, ethyl ester	(I)
U144	Acetic acid, lead salt	
U214	Acetic acid, thallium(I) salt	
U002	Acetone	(I)
U003	Acetonitrile	(I,T)
U248	3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin and salts when present at concentrations of 0.3 percent or less	
U004	Acetophenone	
U005	2-Acetylaminofluorene	
U006	Acetyl chloride	(C,R,T)
U007	Acrylamide	
U008	Acrylic acid	(I)
U009	Acrylonitrile	
U150	Alanine, 3-[p-bis(2-chloroethyl)amino] phenyl-,L-	
U011	Amitrole	
U328	2-Amino-1-methylbenzene	
U353	4-Amino-1-methylbenzene	
U012	Aniline	(I,T)
U014	Auramine	
U015	Azaserine	
U010	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-,	
U157	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	
U016	Benz[c]acridine	
U016	3,4-Benzacridine	
U017	Benzal chloride	
U018	Benz[a]anthracene	
U018	1,2-Benzanthracene	
U094	1,2-Benzanthracene, 7,12-dimethyl-	
U012	Benzenamine	(I,T)
U014	Benzenamine, 4,4'-carbonimidoylbis (N,N-dimethyl)-	
U049	Benzenamine, 4-chloro-2-methyl-	
U093	Benzenamine, N,N'-dimethyl-4-phenylazo-	
U158	Benzenamine, 4,4'-methylenebis (2-chloro)-	
U222	Benzenamine, 2-methyl-, hydrochloride	
U181	Benzenamine, 2-methyl-5-nitro	
U019	Benzene	(I,T)
U038	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy, ethyl ester	
U030	Benzene, 1-bromo-4-phenoxy-	
U037	Benzene, chloro-	
U190	1,2-Benzenedicarboxylic acid anhydride	
U028	1,2-Benzenedicarboxylic acid, [bis(2-ethyl-hexyl)] ester	

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1	U069	1,2-Benzenedicarboxylic acid, dibutyl ester	
2	U088	1,2-Benzenedicarboxylic acid, diethyl ester	
3	U102	1,2-Benzenedicarboxylic acid, dimethyl ester	
4	U107	1,2-Benzenedicarboxylic acid, di-n-octyl ester	
5	U070	Benzene, 1,2-dichloro-	
6	U071	Benzene, 1,3-dichloro-	
7	U072	Benzene, 1,4-dichloro-	
8	U017	Benzene, (dichloromethyl)-	
9	U223	Benzene, 1,3-diisocyanatomethyl-	(R,T)
10	U239	Benzene, dimethyl-	(I,T)
11	U201	1,3-Benzenediol	
12	U127	Benzene, hexachloro-	
13	U056	Benzene, hexahydro-	(I)
14	U188	Benzene, hydroxy-	
15	U220	Benzene, methyl-	
16	U105	Benzene, 1-methyl-1-2,4-dinitro-	
17	U106	Benzene, 1-methyl-2,6 dinitro-	
18	U203	Benzene, 1,2-methylenedioxy-4-allyl-	
19	U141	Benzene, 1,2-methylenedioxy-4-propenyl-	
20	U090	Benzene, 1,2-methylenedioxy-4-propyl-	
21	U055	Benzene, (1-methylethyl)-	(I)
22	U169	Benzene, nitro-	(I,T)
23	U183	Benzene, pentachloro-	
24	U185	Benzene, pentachloronitro-	
25	U020	Benzenesulfonic acid chloride	(C,R)
26	U020	Benzenesulfonyl chloride	(C,R)
27	U207	Benzene, 1,2,4,5-tetrachloro-	
28	U023	Benzene, (trichloromethyl)-	(C,R,T)
29	U234	Benzene, 1,3,5-trinitro-	(R,T)
30	U021	Benzidine	
31	U202	1,2-Benzisothiazolin-3-one,1,1-dioxide and salts	
32	U120	Benzo[j,k]fluorene	
33	U022	Benzo[a]pyrene	
34	U022	3,4-Benzopyrene	
35	U197	p-Benzoquinone	
36	U023	Benzotrichloride	(C,R,T)
37	U050	1,2-Benzphenanthrene	
38	U085	2,2'-Bioxirane	(I,T)
39	U021	(1,1'-Biphenyl)-4,4'-diamine	
40	U073	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-	
41	U091	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-	
42	U095	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	
43	U024	Bis(2-chloroethoxy) methane	
44	U027	Bis(2-chloroisopropyl) ether	
45	U244	Bis(dimethylthiocarbamoyl) disulfide	
46	U028	Bis(2-ethylhexyl) phthalate	
47	U246	Bromine cyanide	
48	U225	Bromoform	
49	U030	4-Bromophenyl phenyl ether	
50	U128	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	
51	U172	1-Butanamine, N-butyl-N-nitroso-	
52	U035	Butanoic acid, 4-[bis(2-chloroethyl)	
53		amino] benzene-	
54	U031	1-Butanol	(I)
55	U159	2-Butanone	(I,T)
56	U160	2-Butanone peroxide	(R,T)
57	U053	2-Butenal	
58	U074	2-Butene, 1,4-dichloro-	(I,T)
59	U031	n-Butyl alcohol	(I)
60	U136	Cacodylic acid	
61	U032	Calcium chromate	
62	U238	Carbamic acid, ethyl ester	
63	U178	Carbamic acid, methylnitroso-, ethyl ester	
64	U176	Carbamide, N-ethyl-N-nitroso-	
65	U177	Carbamide, N-methyl-N-nitroso-	
66	U219	Carbamide, thio-	
67	U097	Carbamoyl chloride, dimethyl-	
68	U215	Carbonic acid, dithallium(I) salt	
69	U156	Carbonochloridic acid, methyl ester	(I,T)
70	U033	Carbon oxyfluoride	(R,T)
71	U211	Carbon tetrachloride	

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U033	Carbonyl fluoride		(R,T)
U034	Chloral		
U035	Chlorambucil		
U036	Chlordane, technical		
U026	Chlornaphazine		
U037	Chlorobenzene		
U039	4-Chloro-m-cresol		
U041	1-Chloro-2,3-epoxypropane		
U042	2-Chloroethyl vinyl ether		
U044	Chloroform		
U046	Chloromethyl methyl ether		
U047	beta-Chloronaphthalene		
U048	o-Chlorophenol		
U049	4-Chloro-o-toluidine, hydrochloride		
U032	Chromic acid, calcium salt		
U050	Chrysene		
U051	Creosote		
U052	Cresols		
U052	Cresylic acid		
U053	Crotonaldehyde		
U055	Cumene		(I)
U246	Cyanogen bromide		
U197	1,4-Cyclohexadienedione		
U056	Cyclohexane		(I)
U057	Cyclohexanone		(I)
U130	1,3-Cyclopentadiene, 1,2,3,4,5, 5-hexachloro-		
U058	Cyclophosphamide		
U240	2,4-D, salts and esters		
U059	Daunomycin		
U060	DDD, 1,1-(2,2-dichloroethylidene)-bis-4-chlorobenzene		
U061	DDT, 1,1'-(2,2,2-trichloroethylidene)-bis-4-chlorobenzene		
U142	Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[c,d]-pentalen-2-one		
U062	Diallate		
U133	Diamine		(R,T)
U221	Diaminotoluene		
U063	Dibenz[a,h]anthracene		
U063	1,2:5,6-Dibenzanthracene		
U064	1,2:7,8-Dibenzopyrene		
U064	Dibenz[a,i]pyrene		
U066	1,2-Dibromo-3-chloropropane		
U069	Dibutyl phthalate		
U062	S-(2,3-Dichloroallyl) diisopropylthiocarbamate		
U070	o-Dichlorobenzene		
U071	m-Dichlorobenzene		
U072	p-Dichlorobenzene		
U073	3,3'-Dichlorobenzidine		
U074	1,4-Dichloro-2-butene		(I,T)
U075	Dichlorodifluoromethane		
U192	3,5-Dichloro-N-(1,1-dimethyl-2-propynyl) benzamide		
U060	Dichloro diphenyl dichloroethane		
U061	Dichloro diphenyl trichloroethane		
U078	1,1-Dichloroethylene		
U079	1,2-Dichloroethylene		
U025	Dichloroethyl ether		
U081	2,4-Dichlorophenol		
U082	2,6-Dichlorophenol		
U240	2,4-Dichlorophenoxyacetic acid, salts and esters		
U083	1,2-Dichloropropane		
U084	1,3-Dichloropropene		
U085	1,2:3,4-Diepoxybutane		(I,T)
U108	1,4-Diethylene dioxide		
U086	N,N-Diethylhydrazine		
U087	O,O-Diethyl-S-methyl-dithiophosphate		
U088	Diethyl phthalate		
U089	Diethylstilbestrol		
U148	1,2-Dihydro-3,6-pyridazinedione		
U090	Dihydrosafrole		

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1	U091	3,3'-Dimethoxybenzidine	
2	U092	Dimethylamine	(I)
3	U093	Dimethylaminoazobenzene	
4	U094	7,12-Dimethylbenz[a]anthracene	
5	U095	3,3'-Dimethylbenzidine	
6	U096	alpha,alpha-Dimethylbenzylhydroperoxide	(R)
7	U097	Dimethylcarbamoyl chloride	
8	U098	1,1-Dimethylhydrazine	
9	U099	1,2-Dimethylhydrazine	
10	U101	2,4-Dimethylphenol	
11	U102	Dimethyl phthalate	
12	U103	Dimethyl sulfate	
13	U105	2,4-Dinitrotoluene	
14	U106	2,6-Dinitrotoluene	
15	U107	Di-n-octyl phthalate	
16	U108	1,4-Dioxane	
17	U109	1,2-Diphenylhydrazine	
18	U110	Dipropylamine	(I)
19	U111	Di-n-propylnitrosamine	
20	U001	Ethanal	(I)
21	U174	Ethanamine, N-ethyl-N-nitroso-	
22	U067	Ethane, 1,2-dibromo-	
23	U076	Ethane, 1,1-dichloro-	
24	U077	Ethane, 1,2-dichloro-	
25	U114	1,2-Ethanediylbiscarbamodithioic acid	
26	U131	Ethane, 1,1,1,2,2,2-hexachloro-	
27	U024	Ethane, 1,1'[methylenebis(oxy)]bis [2-chloro]-	
28	U003	Ethanenitrile	(I,T)
29	U117	Ethane, 1,1'-oxybis-	(I)
30	U025	Ethane, 1,1'-oxybis[2-chloro]-	
31	U184	Ethane, pentachloro-	
32	U208	Ethane, 1,1,1,2-tetrachloro-	
33	U209	Ethane, 1,1,2,2-tetrachloro-	
34	U218	Ethanethioamide	
35	U227	Ethane, 1,1,2-trichloro-	
36	U247	Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)	
37	U043	Ethene, chloro-	
38	U042	Ethene, 2-chloroethoxy-	
39	U078	Ethene, 1,1-dichloro-	
40	U079	Ethene, trans-1,2-dichloro-	
41	U210	Ethene, 1,1,2,2-tetrachloro-	
42	U173	Ethanol, 2,2'-(nitrosoimino)bis-	
43	U004	Ethanone, 1-phenyl-	
44	U006	Ethanoyl chloride	(C,R,T)
45	U359	2-Ethoxyethanol	
46	U112	Ethyl acetate	(I)
47	U113	Ethyl acrylate	(I)
48	U238	Ethyl carbamate(urethan)	
49	U038	Ethyl 4,4'-dichlorobenzilate	
50	U114	Ethylenebis(dithiocarbamic acid), salts and esters	
51	U067	Ethylene dibromide	
52	U077	Ethylene dichloride	
53	U359	Ethylene glycol monoethyl ether	
54	U115	Ethylene oxide	(I,T)
55	U116	Ethylene thiourea	
56	U117	Ethyl ether	(I)
57	U076	Ethylidene dichloride	
58	U118	Ethyl methacrylate	
59	U119	Ethyl methanesulfonate	
60	U139	Ferric dextran	
61	U120	Fluoranthene	
62	U122	Formaldehyde	
63	U123	Formic acid	(C,T)
64	U124	Furan	(I)
65	U125	2-Furancarboxaldehyde	(I)
66	U147	2,5-Furandione	
67	U213	Furan, tetrahydro-	(I)
68	U125	Furfural	(I)
69	U124	Furfuran	(I)
70	U206	D-Glucopyranose, 2-deoxy-2(3-methyl-	
71		3-nitrosoureido)-	

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1	U126	Glycidylaldehyde	
2	U163	Guanidine, N-nitroso-N-methyl-N'-nitro-	
3	U127	Hexachlorobenzene	
4	U128	Hexachlorobutadiene	
5	U129	Hexachlorocyclohexane (gamma isomer)	
6	U130	Hexachlorocyclopentadiene	
7	U131	Hexachloroethane	
8	U132	Hexachlorophene	
9	U243	Hexachloropropene	
10	U133	Hydrazine	(R,T)
11	U086	Hydrazine, 1,2-diethyl-	
12	U098	Hydrazine, 1,1-dimethyl-	
13	U099	Hydrazine, 1,2-dimethyl-	
14	U109	Hydrazine, 1,2-diphenyl-	
15	U134	Hydrofluoric acid	(C,T)
16	U134	Hydrogen fluoride	(C,T)
17	U135	Hydrogen sulfide	
18	U096	Hydroperoxide, 1-methyl-1-phenylethyl-	(R)
19	U136	Hydroxydimethylarsine oxide	
20	U116	2-Imidazolidinethione	
21	U137	Indeno[1,2,3-cd]pyrene	
22	U139	Iron dextran	
23	U140	Isobutyl alcohol	(I,T)
24	U141	Isosafrole	
25	U142	Kepone	
26	U143	Lasiocarpine	
27	U144	Lead acetate	
28	U145	Lead phosphate	
29	U146	Lead subacetate	
30	U129	Lindane	
31	U147	Maleic anhydride	
32	U148	Maleic hydrazide	
33	U149	Malononitrile	
34	U150	Melphalan	
35	U151	Mercury	
36	U152	Methacrylonitrile	(I,T)
37	U092	Methanamine, N-methyl-	(I)
38	U029	Methane, bromo-	
39	U045	Methane, chloro-	(I,T)
40	U046	Methane, chloromethoxy-	
41	U068	Methane, dibromo-	
42	U080	Methane, dichloro-	
43	U075	Methane, dichlorodifluoro-	
44	U138	Methane, iodo-	
45	U119	Methanesulfonic acid, ethyl ester	
46	U211	Methane, tetrachloro-	
47	U121	Methane, trichlorofluoro-	
48	U153	Methanethiol	(I,T)
49	U225	Methane, tribromo-	
50	U044	Methane, trichloro-	
51	U121	Methane, trichlorofluoro-	
52	U123	Methanoic acid	(C,T)
53	U036	4,7-Methanoindan, 1,2,4,5,6,7,8,8-	
54		octachloro-3a,4,7,7a-tetrahydro-	
55	U154	Methanol	(I)
56	U155	Methapyrilene	
57	U247	Methoxychlor	
58	U154	Methyl alcohol	(I)
59	U029	Methyl bromide	
60	U186	1-Methylbutadiene	(I)
61	U045	Methyl chloride	(I,T)
62	U156	Methyl chlorocarbonate	(I,T)
63	U226	Methyl chloroform	
64	U157	3-Methylcholanthrene	
65	U158	4,4'-Methylenebis(2-chloroaniline)	
66	U132	2,2'-Methylenebis(3,4,6-trichlorophenol)	
67	U068	Methylene bromide	
68	U080	Methylene chloride	
69	U122	Methylene oxide	
70	U159	Methyl ethyl ketone	(I,T)
71	U160	Methyl ethyl ketone peroxide	(R,T)

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U138	Methyl iodide		
U161	Methyl isobutyl ketone		(I)
U162	Methyl methacrylate		(I,T)
U163	N-Methyl-N'-nitro-N-nitrosoquanidine		
U161	4-Methyl-2-pentanone		(I)
U164	Methylthiouracil		
U010	Mitomycin C		
U059	5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxyl]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-		
U165	Naphthalene		
U047	Naphthalene, 2-chloro-		
U166	1,4-Naphthalenedione		
U236	2,7-Naphthalenedisulfonic acid, 3,3'-[3,3'-dimethyl-(1,1'-biphenyl)-4,4'diyl)]-bis (azo)bis(5-amino-4-hydroxy)-,tetrasodium salt		
U166	1,4 -Naphthoquinone		
U167	1-Naphthylamine		
U168	2-Naphthylamine		
U167	alpha-Naphthylamine		
U168	beta-Naphthylamine		
U026	2-Naphthylamine, N,N-bis(2-chloro-ethyl)-		
U169	Nitrobenzene		(I,T)
U170	p-Nitrophenol		
U171	2-Nitropropane		(I,T)
U172	N-Nitrosodi-n-butylamine		
U173	N-Nitrosodiethanolamine		
U174	N-Nitrosodiethylamine		
U111	N-Nitrosodi-N-propylamine		
U176	N-Nitroso-N-ethylurea		
U177	N-Nitroso-N-methylurea		
U178	N-Nitroso-N-methylurethane		
U179	N-Nitrosopiperidine		
U180	N-Nitrosopyrrolidine		
U181	5-Nitro-o-toluidine		
U193	1,2-Oxathiolane, 2,2-dioxide		
U058	2H-1,3,2-Oxazaphosphorine, 2 [bis(2-chloro-ethyl)amino]-tetrahydro-, 2-oxide		
U115	Oxirane		(I,T)
U041	Oxirane, 2-(chloromethyl)-		
U182	Paraldehyde		
U183	Pentachlorobenzene		
U184	Pentachloroethane		
U185	Pentachloronitrobenzene		
U186	1,3-Pentadiene		(I)
U187	Phenacetin		
U188	Phenol		
U048	Phenol, 2-chloro-		
U039	Phenol, 4-chloro-3-methyl-		
U081	Phenol, 2,4-dichloro-		
U082	Phenol, 2,6-dichloro-		
U101	Phenol, 2,4-dimethyl-		
U170	Phenol, 4-nitro-		
U137	1,10-(1,2-Phenylene)pyrene		
U145	Phosphoric acid, lead salt		
U087	Phosphorodithioic acid, O,O-diethyl S-methyl ester		
U189	Phosphorus sulfide		(R)
U190	Phthalic anhydride		
U191	2-Picoline		
U192	Pronamide		
U194	1-Propanamine		(I,T)
U110	1-Propanamine, N-propyl-		(I)
U066	Propane, 1,2-dibromo-3-chloro-		
U149	Propanedinitrile		
U171	Propane, 2-nitro-		(I,T)
U027	Propane, 2,2'oxybis[2-chloro]-		
U193	1,3-Propane sultone		
U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)		
U126	1-Propanol, 2,3-epoxy-		
U140	1-Propanol, 2-methyl-		(I,T)

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U002	2-Propanone		(I)
U007	2-Propenamide		
U084	Propene, 1,3-dichloro-		
U243	1-Propene, 1,1,2,3,3,3-hexachloro-		
U009	2-Propenenitrile		
U152	2-Propenenitrile, 2-methyl-		(I,T)
U008	2-Propenoic acid		(I)
U113	2-Propenoic acid, ethyl ester		(I)
U118	2-Propenoic acid, 2-methyl-, ethyl ester		
U162	2-Propenoic acid, 2-methyl-, methyl ester,		(I,T)
U194	n-Propylamine		(I,T)
U083	Propylene dichloride		
U196	Pyridine		
U155	Pyridine, 2-[(2-dimethylamino)ethyl]-2-thenylamino-		
U179	Pyridine, hexahydro-N-nitroso-		
U191	Pyridine, 2-methyl-		
U164	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-		
U180	Pyrrole, tetrahydro-N-nitroso-		
U200	Reserpine		
U201	Resorcinol		
U202	Saccharin and salts		
U203	Safrole		
U204	Selenious acid		
U204	Selenium dioxide		
U205	Selenium disulfide		(R,T)
U015	L-Serine, diazoacetate (ester)		
U089	4,4'-Stilbenediol, alpha,alpha'-diethyl-		
U206	Streptozotocin		
U135	Sulfur hydride		
U103	Sulfuric acid, dimethyl ester		
U189	Sulfur phosphide		(R)
U205	Sulfur selenide		(R,T)
U207	1,2,4,5-Tetrachlorobenzene		
U208	1,1,1,2-Tetrachloroethane		
U209	1,1,2,2-Tetrachloroethane		
U210	Tetrachloroethylene		
U213	Tetrahydrofuran		(I)
U214	Thallium(I) acetate		
U215	Thallium(I) carbonate		
U216	Thallium(I) chloride		
U217	Thallium(I) nitrate		
U218	Thioacetamide		
U153	Thiomethanol		(I,T)
U219	Thiourea		
U244	Thiram		
U220	Toluene		
U221	Toluenediamine		
U223	Toluene diisocyanate		(R,T)
U328	o-Toluidine		
U353	p-Toluidine		
U222	o-Toluidine hydrochloride		
U011	1H-1,2,4-Triazol-3-amine		
U226	1,1,1-Trichloroethane		
U227	1,1,2-Trichloroethane		
U228	Trichloroethene		
U228	Trichloroethylene		
U121	Trichloromonofluoromethane		
U234	sym-Trinitrobenzene		(R,T)
U182	1,3,5-Trioxane, 2,4,6-trimethyl-		
U235	Tris (2,3-dibromopropyl) phosphate		
U236	Trypan blue		
U237	Uracil, 5[bis(2-chloroethyl)amino]-		
U237	Uracil mustard		
U043	Vinyl chloride		
U248	Warfarin when present at concentrations of 0.3 percent or less		
U239	Xylene		(I)
U200	Yohimban-16-carboxylic acid, 11, 17-di-methoxy-18-[(3,4,5-trimethoxy-benzoyl)oxy]-, methyl ester,		
U249	Zinc phosphide when present at		

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concentrations of 10 percent or less

Subp. 5. [Unchanged.]

7045.0139 BASIS FOR LISTING HAZARDOUS WASTES.

The following table lists the constituents which caused the agency to list wastes as hazardous in part 7045.0135, subparts 2 and 3. The notation "N.A." indicates the waste is hazardous because it fails the test for the characteristics of ignitability, corrosivity, reactivity, or toxicity, and the listing of a chemical name is not applicable.

Basis for Listing Hazardous Wastes

Hazardous Waste No.	Hazardous Constituents For Which Listed
F001	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, o-dichlorobenzene, trichlorofluoromethane
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed)
F007	Cyanide (salts)
F008	Cyanide (salts)
F009	Cyanide (salts)
F010	Cyanide (salts)
F011	Cyanide (salts)
F012	Cyanide (complexed)
F019	Hexavalent chromium, cyanide (complexed)
F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
F021	Penta- and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives
F022	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans
F023	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
F024	Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1,2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene,

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		chlorobenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene
	F026	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans
	F027	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
	F028	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
	K001	Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichloro-, phenols, tetrachlorophenols, 2,4-dinitrophenol, cresosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno (1,2,3,cd)pyrene, benz(a)-anthracene, dibenz(a)anthracene, acenaphthalene
	K002	Hexavalent chromium, lead
	K003	Hexavalent chromium, lead
	K004	Hexavalent chromium
	K005	Hexavalent chromium, lead
	K006	Hexavalent chromium
	K007	Cyanide (complexed), hexavalent chromium
	K008	Hexavalent chromium
	K009	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid
	K010	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde
	K011	Acrylonitrile, acetonitrile, hydrocyanic acid
	K013	Hydrocyanic acid, acrylonitrile, acetonitrile
	K014	Acetonitrile, acrylamide
	K015	Benzyl chloride, chlorobenzene, toluene, benzotrichloride
	K016	Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene
	K017	Epichlorohydrin, chloroethers [bis (chloromethyl) ether and bis (2-chloroethyl) ethers], trichloropropane, dichloropropanols
	K018	1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene
	K019	Ethylene dichloride, 1,1,1-trichloroethane,1,1,2-trichloroethane, tetrachloroethanes(1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetra-chloride, chloroform, vinyl chloride, vinylidene chloride
	K020	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetra-chloroethane and 1,1,1,2-tetrachloroethane), trichloro-ethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride
	K021	Antimony, carbon tetrachloride, chloroform
	K022	Phenol, tars (polycyclic aromatic hydrocarbons
	K023	Phthalic anhydride, maleic anhydride
	K024	Phthalic anhydride, 1,4-naphthoquinone
	K025	Meta-dinitrobenzene, 2,4-dinitrotoluene
	K026	Paraldehyde, pyridines, 2-picoline
	K027	Toluene diisocyanate, toluene-2, 4-diamine
	K028	1,1,1-trichloroethane, vinyl chloride
	K029	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform
	K030	Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride
	K031	Arsenic
	K032	Hexachlorocyclopentadiene
	K033	Hexachlorocyclopentadiene
	K034	Hexachlorocyclopentadiene

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K035	Creosote, chrysene, naphthalene, fluoranthene, benzo-(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene
K036	Toluene, phosphorodithioic and phosphorothioic acid esters
K037	Toluene, phosphorodithioic and phosphorothioic acid esters
K038	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters
K039	Phosphorodithioic and phosphorothioic acid esters
K040	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters
K041	Toxaphene
K042	Hexachlorobenzene, ortho-dichlorobenzene
K043	2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol
K044	N.A.
K045	N.A.
K046	Lead
K047	N.A.
K048	Hexavalent chromium, lead
K049	Hexavalent chromium, lead
K050	Hexavalent chromium
K051	Hexavalent chromium, lead
K052	Lead
K060	Cyanide, naphthalene, phenolic compounds, arsenic
K061	Hexavalent chromium, lead, cadmium
K062	Hexavalent chromium, lead
K069	Hexavalent chromium, lead, cadmium
K071	Mercury
K073	Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloro-ethylene, 1,1,2,2-tetrachloroethane
K083	Aniline, diphenylamine, nitrobenzene, phenylenediamine
K084	Arsenic
K085	Benzene, dichlorobenzenes, trichlorobenzenes, tetra-chlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride
K086	Lead, hexavalent chromium
K087	Phenol, naphthalene
K093	Phthalic anhydride, maleic anhydride
K094	Phthalic anhydride
K095	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane
K096	1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane
K097	Chlordane, heptachlor
K098	Toxaphene
K099	2,4-dichlorophenol, 2,4,6-trichlorophenol
K100	Hexavalent chromium, lead, cadmium
K101	Arsenic
K102	Arsenic
K103	Aniline, nitrobenzene, phenylenediamine
K104	Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine
K105	Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol
K106	Mercury
K111	2,4-Dinitrotoluene
K112	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline
K113	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline
K114	2,4-Toluenediamine, o-toluidine, p-toluidine
K115	2,4-Toluenediamine
K116	Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene
K117	Ethylene dibromide
K118	Ethylene dibromide
K136	Ethylene dibromide

7045.0141 HAZARDOUS CONSTITUENTS.

Hazardous constituents are as follows:

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Acetonitrile
Acetophenone
3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin and salts
2-Acetylaminofluorene
Acetyl chloride
1-Acetyl-2-thiourea
Acrolein
Acrylamide
Acrylonitrile
Aflatoxins
Aldrin
Allyl alcohol
Aluminum phosphide
4-Aminobiphenyl
6-Amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)-8a-methoxy-5-methylcarbamate azirino(2',3':3,4) pyrrolo(1,2-a)indole-4,7-dione, (ester), (Mitomycin C)
5-(Aminomethyl)-3-isoxazolol
Amitrole
Aniline
Antimony and compounds not otherwise specified in this list
Aramite
Arsenic and compounds not otherwise specified in this list
Arsenic acid
Arsenic pentoxide
Arsenic trioxide
Auramine
Azaserine
Barium and compounds not otherwise specified in this list
Barium cyanide
Benz[c]acridine
Benz[a]anthracene
Benzene
Benzene, 2-amino-1-methyl (o-Toluidine)
Benzene, 4-amino-1-methyl (p-Toluidine)
Benzenearsonic acid
Benzene, dichloromethyl-
Benzenethiol
Benzidine
Benzo[b]fluoranthene
Benzo[j]fluoranthene
Benzo[a]pyrene
p-Benzoquinone
Benzotrichloride
Benzyl chloride
Beryllium and compounds not otherwise specified in this list
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl) ether
N,N-Bis(2-chloroethyl)-2-naphthylamine
Bis(2-chloroisopropyl) ether
Bis(chloromethyl) ether
Bis(2-ethylhexyl) phthalate
Bromoacetone
Bromomethane
4-Bromophenyl phenyl ether
Brucine
2-Butanone peroxide
Butyl benzyl phthalate
2-sec-Butyl-4,6-dinitrophenol (DNBP)
Cadmium and compounds not otherwise specified in this list
Calcium chromate
Calcium cyanide
Carbon disulfide
Carbon oxyfluoride
Chloral
Chlorambucil
Chlordane (alpha and gamma isomers)
Chlorinated benzenes not otherwise specified in this list
Chlorinated ethane not otherwise specified in this list
Chlorinated fluorocarbons not otherwise specified in this list
Chlorinated naphthalene not otherwise specified in this list

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Chlorinated phenol not otherwise specified in this list
Chloroacetaldehyde
Chloroalkyl ethers not otherwise specified in this list
p-Chloroaniline
Chlorobenzene
Chlorobenzilate
2-Chloro-1,3-butadiene (chloroprene)
p-Chloro-m-cresol
1-Chloro-2,3-epoxybutane
1-Chloro-2,3-epoxypropane
2-Chloroethyl vinyl ether
Chloroform
Chloromethane
Chloromethyl methyl ether
2-Chloronaphthalene
2-Chlorophenol
1-(o-Chlorophenyl)thiourea
3-Chloropropene (allyl chloride)
3-Chloropropionitrile
Chromium and compounds not otherwise specified in this list
Chrysene
Citrus red No. 2
Coal Tars
Copper cyanide
Creosote
Cresols
Crotonaldehyde
Cyanides (soluble salts and complexes) not otherwise specified in this list
Cyanogen
Cyanogen bromide
Cyanogen chloride
Cycasin
2-Cyclohexyl-4,6-dinitrophenol
Cyclophosphamide
Daunomycin
DDD (1,1-(2,2-dichloroethylidene)-bis-4-chlorobenzene)
DDE (Ethylene, 1,1-dichloro-2,2-bis(4-chlorophenyl)-)
DDT (1,1'-(2,2,2-trichloroethylidene)-bis-4-chlorobenzene)
Diallate
Dibenz[a,h]acridine
Dibenz[a,j]acridine
Dibenz[a,h]anthracene
7H-Dibenzo[c,g]carbazole
Dibenzo[a,e]pyrene
Dibenzo[a,h]pyrene
Dibenzo[a,i]pyrene
1,2-Dibromo-3-chloropropane
1,2-Dibromoethane
Dibromomethane
Di-n-butyl phthalate
o-Dichlorobenzene
m-Dichlorobenzene
p-Dichlorobenzene
Dichlorobenzene not otherwise specified in this list
3,3'-Dichlorobenzidine
1,4-Dichloro-2-butene
Dichlorodifluoromethane
1,1-Dichloroethane
1,2-Dichloroethane
trans-1,2-Dichloroethene
Dichloroethylene not otherwise specified in this list
1,1-Dichloroethylene
Dichloromethane
2,4-Dichlorophenol
2,6-Dichlorophenol
2,4-Dichlorophenoxyacetic acid, salts and esters (2,4-D)
Dichlorophenylarsine
Dichloropropane not otherwise specified in this list
1,2-Dichloropropane
Dichloropropanol not otherwise specified in this list

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Dichloropropene not otherwise specified in this list
1,3-Dichloropropene
Dieldrin
1,2:3,4-Diepoxybutane
Diethylarsine
N,N-Diethylhydrazine
O,O-Diethyl-S-methyl ester of phosphorodithioic acid
O,O-Diethylphosphoric acid, O-p-nitrophenyl ester
Diethyl phthalate
O,O-Diethyl-O-(2-pyrazinyl)phosphorothioate
Diethylstilbestrol
Dihydrosafrole
3,4-Dihydroxy-alpha-(methylamino)methyl benzyl alcohol
Di-isopropylfluorophosphate (DFP)
Dimethoate
3,3'-Dimethoxybenzidine
p-Dimethylaminoazobenzene
7,12-Dimethylbenz[a]anthracene
3,3'-Dimethylbenzidine
Dimethylcarbamoyl chloride
1,1-Dimethylhydrazine
1,2-Dimethylhydrazine
3,3-Dimethyl-1-(methylthio)-2-butanone-O-[(methylamino) carbonyl] oxime
alpha, alpha-Dimethylphenethylamine
2,4-Dimethylphenol
Dimethyl phthalate
Dimethyl sulfate
Dinitrobenzene not otherwise specified in this list
4,6-Dinitro-o-cresol and salts
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
Di-n-octyl phthalate
1,4-Dioxane
Diphenylamine
1,2-Diphenylhydrazine
Di-n-propylnitrosamine
Disulfoton
2,4-Dithiobiuret
Endosulfan
Endrin and metabolites
Ethyl carbamate
Ethyl cyanide
Ethylenebisdithiocarbamic acid, salts and esters
Ethylene glycol monoethyl ether (Ethanol, 2-ethoxy)
Ethyleneimine
Ethylene oxide
Ethylenethiourea
Ethyl methacrylate
Ethyl methanesulfonate
Fluoranthene
Fluorine
2-Fluoroacetamide
Fluoroacetic acid, sodium salt
Formaldehyde
Formic acid
Glycidylaldehyde
Halomethane not otherwise specified in this list
Heptachlor
Heptachlor epoxide (alpha, beta, and gamma isomers)
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclohexane (all isomers)
Hexachlorocyclopentadiene
Hexachlorodibenzo-p-dioxins
Hexachlorodibenzofurans
Hexachloroethane
1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo, endo-dimethanonaphthalene
Hexachlorophene

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Hexachloropropene
Hexaethyl tetraphosphate
Hydrazine
Hydrocyanic acid
Hydrofluoric acid
Hydrogen sulfide
Hydroxydimethylarsine oxide
Indeno(1,2,3-cd)pyrene
Iodomethane
Iron dextran
Isocyanic acid, methyl ester
Isobutyl alcohol
Isosafrole
Kepone
Lasiocarpine
Lead and compounds not otherwise specified in this list
Lead acetate
Lead phosphate
Lead subacetate
Maleic anhydride
Maleic hydrazide
Malononitrile
Melphalan
Mercury fulminate
Mercury and compounds not otherwise specified in this list
Methacrylonitrile
Methanethiol
Methapyrilene
Methomyl
Methoxychlor
2-Methylaziridine
3-Methylcholanthrene
Methyl chlorocarbonate
4,4'-Methylene-bis-(2-chloroaniline)
Methyl ethyl ketone (MEK)
Methyl hydrazine
2-Methyllactonitrile
Methyl methacrylate
Methyl methanesulfonate
2-Methyl-2-(methylthio)propionaldehyde-o-(methylcarbonyl) oxime
N-Methyl-N'-nitro-N-nitrosoguanidine
Methyl parathion
Methylthiouracil
Mustard gas
Naphthalene
1,4-Naphthoquinone
1-Naphthylamine
2-Naphthylamine
1-Naphthyl-2-thiourea
Nickel and compounds not otherwise specified in this list
Nickel carbonyl
Nickel cyanide
Nicotine and salts
Nitric oxide
p-Nitroaniline
Nitrobenzene
Nitrogen dioxide
Nitrogen mustard and hydrochloride salt
Nitrogen mustard N-oxide and hydrochloride salt
Nitroglycerine
4-Nitrophenol
2-Nitropropane (Propane, 2-nitro)
4-Nitroquinoline-1-oxide
Nitrosamine not otherwise specified in this list
N-Nitrosodi-N-butylamine
N-Nitrosodiethanolamine
N-Nitrosodiethylamine
N-Nitrosodimethylamine
N-Nitroso-N-ethylurea
N-Nitrosomethylethylamine
N-Nitroso-N-methylurea

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N-Nitroso-N-methylurethane
N-Nitrosomethylvinylamine
N-Nitrosomorpholine
N-Nitrosonornicotine
N-Nitrosopiperidine
N-Nitrosopyrrolidine
N-Nitrososarcosine
5-Nitro-o-toluidine
Octamethylpyrophosphoramide
Osmium tetroxide
7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
Paraldehyde
Parathion
Pentachlorobenzene
Pentachlorodibenzo-p-dioxins
Pentachlorodibenzofurans
Pentachloroethane
Pentachloronitrobenzene (PCNB)
Pentachlorophenol
Phenacetin
Phenol
Phenylenediamine
Phenylmercury acetate
N-Phenylthiourea
Phosgene
Phosphine
Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl]ester (Phorate)
Phosphorothioic acid, O,O-dimethyl O-[p-(dimethylamino-sulfonyl)phenyl] ester
Phthalic acid esters not otherwise specified in this list
Phthalic anhydride
2-Picoline
Polychlorinated biphenyl not otherwise specified in this list
Potassium cyanide
Potassium silver cyanide
Pronamide
1,3-Propane sultone
n-Propylamine
Propylthiouracil
2-Propyn-1-ol
Pyridine
Reserpine
Recorcinol
Saccharin and salts
Safrole
Selenious acid
Selenium and compounds not otherwise specified in this list
Selenium sulfide
Selenourea
Silver and compounds not otherwise specified in this list
Silver cyanide
Sodium cyanide
Streptozotocin
Strontium sulfide
Strychnine and salts
1,2,4,5-Tetrachlorobenzene
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
Tetrachlorodibenzo-p-dioxins not otherwise specified in this list
Tetrachlorodibenzofurans
Tetrachloroethane not otherwise specified in this list
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrachloroethylene
Tetrachloromethane
2,3,4,6-Tetrachlorophenol
Tetraethyldithiopyrophosphate
Tetraethyl lead
Tetraethylpyrophosphate
Tetranitromethane
Thallium and compounds not otherwise specified in this list

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Thallic oxide
Thallium (I) acetate
Thallium (I) carbonate
Thallium (I) chloride
Thallium (I) nitrate
Thallium selenide
Thallium (I) sulfate
Thioacetamide
Thiosemicarbazide
Thiourea
Thiuram
Toluene
Toluenediamine, N.O.S.
2,4-Toluenediamine
2,6-Toluenediamine
3,4-Toluenediamine
o-Toluidine hydrochloride
Tolylene diisocyanate
Toxaphene
Tribromomethane
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene
Trichloromethanethiol
Trichloromonofluoromethane
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)
2,4,5-Trichlorophenoxypropionic acid (2,4,5-TP) (Silvex)
Trichloropropane not otherwise specified in this list
1,2,3-Trichloropropane
0,0,0-Triethyl phosphorothioate
sym-Trinitrobenzene
Tris(1-azridinyl)phosphine sulfide
Tris(2,3-dibromopropyl) phosphate
Trypan blue
Uracil mustard
Vanadic acid, ammonium salt
Vanadium pentoxide
Vinyl chloride
Zinc cyanide
Zinc phosphide

7045.0214 EVALUATION OF WASTES.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Wastes generated by treatment, storage, or disposal.** Wastes generated by treatment, storage, or disposal of hazardous waste are as follows:

A. [Unchanged.]

B. Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from iron and steel industry facilities which are classified as number 331 or 332 facilities under the Office of Management and Budget Standard Industrial Classification Manual, is not a hazardous waste unless it exhibits one or more characteristics of hazardous waste under part 7045.0131.

C. [Unchanged.]

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7045.0261 MANIFEST DOCUMENT; GENERAL REQUIREMENTS.

Subpart 1. **When required.** A generator who transports or offers for transportation hazardous waste for off-site treatment, storage, or disposal must prepare a manifest before transporting the waste off-site. Generators shall use manifests in accordance with the requirements of items A to C and shall complete the manifest in accordance with the instructions on the manifest.

A. For shipments from either in-state or out-of-state to a facility located in Minnesota, the generator shall use a Minnesota manifest and, if necessary, continuation sheets as provided in subpart 10.

B. For shipments from Minnesota to a facility located in a state (consignment state) that neither supplies nor requires the use of a manifest which is specific for that state, the generator shall use a Minnesota manifest and, if necessary, continuation sheets as provided in subpart 10.

C. [Unchanged.]

Subp. 2. to 6. [Unchanged.]

Subp. 7. **Manifest information.** The Minnesota manifest is based on the Uniform National Manifest that is required under United States Department of Transportation and United States Environmental Protection Agency regulations, as contained in Code of Federal Regulations, title 40, part 262, and Code of Federal Regulations, title 49, part 172. Manifest information requirements include those required by United States Department of Transportation and United States Environmental Protection Agency regulations and consist of the numbered items on the manifest set forth in the Appendix to Code of Federal Regulations, title 40, part 262. Additional state information requirements consist of the telephone number of the designated facility and the hazardous waste numbers specified in parts 7045.0100 to 7045.0141 for each hazardous waste specified on the manifest. Manifests must include the information specified in this subpart and in the instructions on the manifest.

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Subp. 8. **Availability of manifests.** Minnesota manifests are available from the agency or the documents section of the Minnesota Department of Administration, 117 University Avenue, St. Paul, Minnesota 55155.

Subp. 9. **Number of copies.** The manifest must 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, another copy to be returned to the generator by the facility, and the required copies to be returned to the director, pursuant to parts 7045.0265; 7045.0474, subpart 2, item D; and 7045.0580, subpart 2, item D, and any additional copies required by the generator's or designated facility's state, if other than Minnesota. Copies to be returned to the director shall be sent to: Minnesota Pollution Control Agency, Solid and Hazardous Waste Division, 520 Lafayette Road, Saint Paul, Minnesota 55155, Attention: HWIMS.

Subp. 10. **Continuation sheets.** A generator using a Minnesota manifest shall use a continuation sheet to the manifest if more than two transporters are to be used to transport the waste. A generator using a Minnesota manifest shall use either a continuation sheet to the manifest or an additional manifest which is completed in its entirety, if more space is required for the United States Department of Transportation description and related information on the manifest. Any United States Environmental Protection Agency approved continuation sheet may be used if it is completed and copies are distributed in accordance with this part and United States Environmental Protection Agency regulations as contained in Code of Federal Regulations, title 40, part 262. A generator using a continuation sheet to a Minnesota manifest shall enter the preprinted State Manifest Document Number of the manifest into the appropriate space on the continuation sheet, and shall attach the sheet to the manifest. Continuation sheets are not provided by the state. For shipments not requiring a Minnesota manifest, generators shall use continuation sheets in accordance

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with applicable consignment state requirements.

7045.0275 PROPER HAZARDOUS WASTE MANAGEMENT.

Subpart 1. [Unchanged.]

Subp. 2. **Spills; duty to report.** Any person in control of a hazardous waste that spills, leaks, or otherwise escapes from a container, tank, or other containment system, including its associated piping, shall immediately notify the agency if the hazardous waste may cause pollution of the air, land resources, or waters of the state. The person shall use the agency's 24-hour telephone number, (612) 296-8100.

Subp. 3. [Unchanged.]

7045.0296 ANNUAL REPORTING.

Subpart 1. [Unchanged.]

Subp. 2. **Required information.** The annual report must contain the following information related for each hazardous waste or wastes produced during the preceding calendar year:

A. to E. [Unchanged.]

F. a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated;

G. a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent the information is available before 1984; and

H. the certification signed by the generator or authorized representative.

Subp. 3. to 5. [Unchanged.]

7045.0302 INTERNATIONAL SHIPMENTS; SPECIAL CONDITIONS.

Subpart 1. [Unchanged.]

Subp. 2. **Procedures.** When shipping hazardous waste outside the state of Minnesota to a foreign country the generator must:

A. notify the administrator of the Environmental Protection Agency and the director in writing four weeks before the initial shipment of hazardous waste to each country in each

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calendar year. The waste must be identified by its hazardous waste identification number and its United States Department of Transportation shipping description and the name and address of the foreign consignee must be included in this notice. These notices must be sent to: "Office of International Activities (A-106)," United States Environmental Protection Agency, Washington, D.C. 20460; and Minnesota Pollution Control Agency, Division of Solid and Hazardous Waste, 520 Lafayette Road, Saint Paul, Minnesota 55155;

B. and C. [Unchanged.]

D. use a Minnesota manifest.

Subp. 3. [Unchanged.]

Subp. 4. **Manifest.** When importing hazardous waste, a person must use a Minnesota manifest and meet all requirements of parts 7045.0261 and 7045.0265 for the manifest except that:

A. and B. [Unchanged.]

Subp. 5. **Annual report.** Any person exporting hazardous waste identified or listed under this chapter shall file with the agency and the United States Environmental Protection Agency at the Office of International Activities (A-106) United States Environmental Protection Agency, Washington, D.C. 20460 no later than March 1 of each year, a report summarizing the types, quantities, frequency, and ultimate destination of all the hazardous waste exported during the previous calendar year.

7045.0395 HAZARDOUS WASTE DISCHARGES.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Notification.** An air, rail, highway, or water transporter who has discharged hazardous waste must:

A. Immediately notify the agency if the hazardous waste may cause pollution of the air, land, or waters of the state. The person shall use the agency's 24-hour telephone notification service (612) 296-8100;

B. to D. [Unchanged.]

Subp. 4. and 5. [Unchanged.]

7045.0458 WASTE ANALYSIS REQUIREMENTS.

Subpart 1. [Unchanged.]

Subp. 2. **Waste analysis plan.** The owner or operator shall develop and follow a written waste analysis plan which describes the procedures which he or she will carry out to comply with subpart 1. The owner or operator shall keep this plan at the facility. The plan must specify:

A. to E. [Unchanged.]

F. where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in parts 7045.0456; 7045.0538, subpart 10; and 7045.0542, subpart 2; and

G. [Unchanged.]

7045.0460 LOCATION STANDARDS.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Underground mines and caves.** The placement of any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, or underground mine or cave is prohibited.

7045.0468 EMERGENCY PROCEDURES.

Subpart 1. to 4. [Unchanged.]

Subp. 5. **Report on released material.** 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 findings must be reported as provided in items A and B.

A. [Unchanged.]

B. The agency's emergency response unit must be immediately notified at the 24-hour telephone number, (612) 296-8100, and notification must also be given to either the governmental official designated as the on-scene coordinator for that geographical area in the applicable regional contingency plan under Code of Federal Regulations, title 40, part 1510 (1983) or to the National Response Center using their 24-hour toll free telephone number, (800) 424-8802. The report must include:

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(1) to (6) [Unchanged.]

Subp. 6. **Duty to notify.** The hazardous waste coordinator shall immediately notify the agency if the released hazardous waste may cause pollution of the air, land resources, or waters of the state. The emergency coordinator shall use the agency's 24-hour telephone number (612) 296-8100.

Subp. 7. and 8. [Unchanged.]

7045.0476 MANIFEST DISCREPANCIES.

Subpart 1. [Unchanged.]

Subp. 2. **Definition of a discrepancy.** Manifest discrepancies are defined as significant or minor as follows:

A. [Unchanged.]

B. Minor discrepancies are all other discrepancies including, but not limited to, manifests other than the required Minnesota manifest, incomplete manifests or shipping papers, manifests or shipping papers which are inconsistent, and a container or portable tank containing hazardous waste which is not properly labeled.

Subp. 3. [Unchanged.]

7045.0478 OPERATING RECORD.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Record information.** All of the following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

A. to D. [Unchanged.]

E. Records and results of waste analysis performed as specified in parts 7045.0456, 7045.0458, 7045.0538, subpart 10, and 7045.0542, subpart 2.

F. to J. [Unchanged.]

K. A certification that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that the permittee generates to the degree determined by the permittee to be economically practicable; and the method of treatment, storage, or disposal is that practicable method currently available to the permittee which minimizes the present

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and future threat to human health and the environment.

L. The certification signed by the owner or operator of the facility or an authorized representative.

7045.0482 REQUIRED REPORTS.

Subpart 1. [Unchanged.]

Subp. 2. **Annual report.** The owner or operator shall prepare and submit a single copy of an annual report to the director no later than March 1 for the preceding calendar year. The report form and instructions to be used may be obtained from the director. The annual report must cover facility activities during the previous calendar year and must include the following information:

A. to E. [Unchanged.]

F. the most recent closure cost estimate under part 7045.0502 and, for disposal facilities, the most recent post-closure cost estimates under part 7045.0506;

G. for generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of the waste generated;

H. for generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years before 1984; and

I. the certification signed by the owner or operator of the facility or an authorized representative.

Subp. 3. and 4. [Unchanged.]

7045.0484 GROUND WATER PROTECTION.

Subpart 1. **Scope.** This part applies as follows:

A. Except as provided in item B, the requirements of this part apply to owners or operators of facilities that treat, store, or dispose of hazardous waste. The owner or operator must comply with the requirements in subitems (1) to (3) for all wastes or waste constituents contained in solid or hazardous

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waste management units at the facility regardless of the time the waste was placed in such units:

(1) all solid waste management units must comply with part 7045.0485;

(2) a surface impoundment, waste pile, land treatment unit, or landfill that receives hazardous waste after July 26, 1982, is a regulated unit and must comply with the requirements of subparts 2 to 14 for detecting, characterizing, and responding to releases; and

(3) the financial responsibility requirements of part 7045.0485 apply to regulated units.

B. The owner or operator is not subject to subparts 2 to 14 if the criteria in subitem (1), (2), or (3) are met:

(1) the owner or operator is exempted under part 7045.0450;

(2) the owner or operator designs and operates a waste pile in compliance with part 7045.0534, subpart 1; or

(3) the director finds, under part 7045.0536, subpart 8, item D, that the treatment zone of a land treatment unit that qualifies as a regulated unit does not contain levels of hazardous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of part 7045.0536, subpart 6, has not shown a statistically significant increase in hazardous constituents below the treatment zone during the operating life of the unit. An exemption can only relieve an owner or operator of responsibility to meet the requirements of subparts 2 to 14 during the post-closure care period.

C. and D. [Unchanged.]

Subp. 2. to 11. [Unchanged.]

Subp. 12. **Detection monitoring program.** An owner or operator required to establish a detection monitoring program under this part shall perform the following:

A. to D. [Unchanged.]

E. The owner or operator of waste piles, land

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treatment units that have detected a significant increase in hazardous constituents or monitoring parameters below the treatment zone, and double lined surface impoundments and landfills where liquids have been detected in the leak detection system, shall comply with subitems (1) and (2):

(1) and (2) [Unchanged.]

F. to K. [Unchanged.]

Subp. 13. and 14. [Unchanged.]

7045.0485 CORRECTIVE ACTION FOR SOLID AND HAZARDOUS WASTE MANAGEMENT UNITS.

Subpart 1. **Applicability.** The owner or operator of a facility seeking a permit for the treatment, storage, or disposal of hazardous waste must institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any hazardous or solid waste management unit at the facility, regardless of the time at which waste was placed in the unit.

Subp. 2. **Conditions.** Corrective action as required under subpart 1 must be specified in the permit. The permit must contain schedules of compliance for corrective action and assurances of financial responsibility for completing corrective action. Assurance of financial responsibility must be provided in addition to the applicable requirements of parts 7045.0498 to 7045.0524.

7045.0538 LANDFILLS.

Subpart 1. to 9. [Unchanged.]

Subp. 10. **Special requirements for liquid waste.** Special requirements for liquid waste are as follows:

A. The placement of bulk or noncontainerized liquid hazardous waste or waste containing free liquids, whether or not absorbents have been added, is prohibited.

B. [Unchanged.]

C. The presence or absence of free liquids in containerized or bulk waste must be demonstrated using the Paint Filter Liquids Test, Method 9095 as described in Test Methods

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for Evaluating Solid Wastes, Physical/Chemical Methods, EPA publication number SW 846.

Subp. 11. to 13. [Unchanged.]

7045.0552 FACILITIES GOVERNED BY INTERIM STATUS.

Subpart 1. [Unchanged.]

Subp. 1a. **Applicability for owners and operators of facilities not regulated as hazardous waste facilities by federal regulation.** Owners and operators of hazardous waste facilities that are not federally regulated as hazardous waste facilities that are, for example, regulated as facilities by state rule only, are subject to the applicable requirements of parts 7045.0552 to 7045.0642 on the effective date of any rules that make the facility subject to regulation. The facility shall submit a Part B application for a hazardous waste facility permit to the director within one year of the effective date of any rules that first make the facility subject to the requirement to obtain a hazardous waste facility permit.

Subp. 2. to 4. [Unchanged.]

7045.0556 GENERAL FACILITY STANDARDS.

Subpart 1. to 6. [Unchanged.]

Subp. 7. **Prohibition.** Placement of a hazardous waste in a salt dome, salt bed formation, underground mine, or cave is prohibited.

7045.0564 WASTE ANALYSIS REQUIREMENTS.

Subpart 1. [Unchanged.]

Subp. 2. **Waste analysis plan.** The owner or operator shall develop and follow a written waste analysis plan which describes the procedures the owner or operator will carry out to comply with subpart 1. The owner or operator shall keep this plan at the facility. The plan must specify:

A. to E. [Unchanged.]

F. Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in parts 7045.0628,

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subpart 3; 7045.0630, subpart 4; 7045.0632, subpart 3; 7045.0634, subpart 3; 7045.0638, subpart 7; 7045.0640, subpart 2; and 7045.0642, subpart 3.

G. [Unchanged.]

7045.0584 OPERATING RECORD.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Record information.** The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

A. to D. [Unchanged.]

E. Records and results of waste analysis and trial tests performed as specified in parts 7045.0564; 7045.0628, subpart 3; 7045.0630, subpart 4; 7045.0632, subpart 3; 7045.0634, subpart 3; 7045.0638, subpart 7; 7045.0640, subpart 2; and 7045.0642, subpart 3.

F. to I. [Unchanged.]

7045.0588 REQUIRED REPORTS.

Subpart 1. [Unchanged.]

Subp. 2. **Annual report.** The owner or operator shall prepare and submit a single copy of an annual report to the director, no later than March 1 for the preceding calendar year. The report form and instructions to be used may be obtained from the director. The annual report must cover facility activities during the previous calendar year and must include the following information:

A. to F. [Unchanged.]

G. the most recent closure cost estimate under part 7045.0610 and for disposal facilities, the most recent post-closure cost estimate under part 7045.0614;

H. for generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of the waste generated;

I. for generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume

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and toxicity actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984; and

J. the certification signed by the owner or operator of the facility or an authorized representative.

Subp. 3. and 4. [Unchanged.]

7045.0638 LANDFILLS.

Subpart 1. [Unchanged.]

Subp. 2. **General operating requirements.** The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

The owner or operator shall design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

Collecting and holding facilities, such as tanks or basins, associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

The owner or operator of a landfill containing hazardous waste which is subject to dispersal by wind shall cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled. As required by part 7045.0564, the waste analysis plan must include analyses needed to comply with subparts 5, 6, and 7. As required by part 7045.0584, the owner or operator shall place the results of these analyses in the operating record of the facility.

Subp. 3. to 6. [Unchanged.]

Subp. 7. **Special requirements for liquid waste.** Bulk or noncontainerized liquid waste or waste containing free liquids, whether or not absorbents have been added, must not be placed in a landfill.

A. A container holding liquid waste or waste containing free liquids must not be placed in a landfill, unless:

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(1) all free-standing liquid has been removed by decanting, or other methods; has been mixed with absorbent or solidified so that free-standing liquid is no longer observed; or has been otherwise eliminated;

(2) the container is a laboratory pack as defined in subpart 9 and is disposed of in accordance with subpart 9;

(3) the container is designed to hold liquids or free liquids for a use other than storage, such as a battery or capacitor; or

(4) the container is very small, such as an ampule.

B. The presence or absence of free liquids in containerized or bulk waste must be demonstrated using the Paint Filter Liquids Test, Method 9095 as described in Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, publication number SW 846.

Subp. 8. and 9. [Unchanged.]

REPEALER. Minnesota Rules, part 7045.0534, subparts 4 and 5 are repealed.

APPROVED BY THE REVISOR OF STATUTES BY:

Office of the Revisor of Statutes

Administrative Rules

TITLE: Proposed Permanent Rules Relating to Hazardous Waste Codification

AGENCY: Pollution Control Agency

MINNESOTA RULES: Chapters 7001; 7046

STATE OF MINNESOTA
DEPARTMENT OF STATE
FILED
MAR 23 1987
Joan Anderson Growe 2:20 PM
Secretary of State

The attached rules are approved for publication in the State Register

APPROVED AS TO FORM AND LEGALITY
3/18 1987
HUBERT H. HUMPHREY, III
ATTORNEY GENERAL
BY _____
ASSISTANT ATTORNEY GENERAL

David S. Niss
Assistant Revisor

Notice of Intent to [illegible] Outside Opinion Concerning Proposed Amendments to Minnesota Hazardous Waste Rules Incorporating Provisions of the Federal Hazardous and Solid Waste Amendments of 1984

Notice is hereby given that the Minnesota Pollution Control Agency (MPCA) is seeking information and opinions from sources outside the MPCA regarding amendments to portions of the Minnesota hazardous waste rules to incorporate the federal Hazardous and Solid Waste Amendments of 1984.

The MPCA will be amending at least the following to conform to the federal requirements:

1. Minnesota Rules, parts 7045.0450 to 7045.0642 (Facility Standards);

2. Hazardous waste facility permitting requirements of Minnesota Rules, Chapter 7001; and

3. Minnesota Rules, parts 7045.0075 (Petitions), 7045.0120 (Exempt Wastes), 7045.0135 (Lists of Hazardous Wastes), 7045.0296 (Annual Reporting), 7045.0125 (Management of Waste by Use, Reuse, Recycling, and Reclamation).

The MPCA requests information and comments concerning the subject matter of the proposed amendments.

Written or oral information concerning the subject matter will be accepted until October 10, 1985. Oral statements will be received during regular business hours. Written statements should be addressed to:

Melba Hensel
Minnesota Pollution Control Agency
Solid and Hazardous Waste Division
1935 West County Road B2
Roseville, Minnesota 55113
612/296-7712

M Hensel 9-9-85

9/9/85

Dated: 9-9-85

for Michael Robertson
Thomas J. Kalitowski
Executive Director

File: Rule Amendments
Journal #2
[illegible]

persons outside of the agency regarding amendments to the Land Management and Administration requirements of MN Rule 1983 Part 6105.0640 and Part 6105.0650 (formerly NR 2300 (c) and (d)).

Amendments to the rule are authorized by Minnesota Statutes, Section 104.34, Subdivision 1, which establishes the Commissioner of Natural Resources' responsibility to promulgate regulations for the management of designated components of the Minnesota Wild and Scenic Rivers System. The Kettle River was designated a wild and scenic river in 1975 and the department is currently evaluating the applicable rules and considering appropriate amendments.

All interested persons may submit comments or information on this subject either orally or in writing. Written statements should be addressed to:

William Zachmann
Minnesota Department of Natural Resources
Box 32
500 Lafayette Road
St. Paul, MN 55146

Oral statements should be received during regular business hours over the telephone at 612/296-9224 or in person at the above address. All statements of information and comment will be accepted until October 7, 1985. Any written material received shall become part of the record in the event the rules are amended.

Joseph N. Alexander
Commissioner of Natural Resources

Pollution Control Agency

Outside Opinion Sought Concerning Proposed Amendments Incorporating Provisions of the Federal Hazardous and Solid Waste Amendments of 1984

Notice is hereby given that the Minnesota Pollution Control Agency (MPCA) is seeking information and opinions from sources outside the MPCA regarding amendments to portions of the Minnesota hazardous waste rules to incorporate the federal Hazardous and Solid Waste Amendments of 1984.

The MPCA will be amending at least the following to conform to the federal requirements:

1. Minnesota Rules, parts 7045.0450 to 7045.0642 (Facility Standards);

2. Hazardous waste facility permitting requirements of Minnesota Rules, Chapter 7001; and

3. Minnesota Rules, parts 7045.0075 (Petitions), 7045.0120 (Exempt Wastes), 7045.0135 (Lists of Hazardous Wastes), 7045.0296 (Annual Reporting), 7045.0125 (Management of Waste by Use, Reuse, Recycling, and Reclamation).

The MPCA requests information and comments concerning the subject matter of the proposed amendments.

Written or oral information concerning the subject matter will be accepted until October 10, 1985. Oral statements will be received during regular business hours. Written statements should be addressed to:

Melba Hensel
Minnesota Pollution Control Agency
Solid and Hazardous Waste Division
1935 West County Road B2
Roseville, Minnesota 55113
612/296-7712

September 9, 1985

Michael Robertson
for
Thomas J. Kalitowski
Executive Director

CERTIFICATE OF MINNESOTA POLLUTION CONTROL AGENCY'S AUTHORIZING RESOLUTION

I, Thomas J. Kalitowski, do hereby certify that I am the Executive Director of the Minnesota Pollution Control Agency, an agency duly authorized under the laws of the State of Minnesota, and that the following is a true, complete and correct copy of a resolution adopted at a meeting of the Minnesota Pollution Control Agency duly and properly called and held on the 28th day of October, 1986, that a quorum was present at said meeting, that a majority of those present voted for the resolution and that said resolution will be set forth in the minutes of said meeting and has not been rescinded or modified.

BE IT RESOLVED, that the authorization to enter into the rulemaking process for amendments to Minn. Rules chs. 7001 and 7045 governing the management, storage, treatment and disposal of hazardous waste incorporating the requirements of the Hazardous and Solid Waste Amendments of 1984 which was granted by the MPCA on April 22, 1986 is hereby withdrawn.

BE IT FURTHER RESOLVED, that the Executive Director of the Minnesota Pollution Control Agency (MPCA) is hereby granted the authority and directed to give the Notice of the MPCA's intent to adopt without a public hearing the attached amendments to the MPCA's hazardous waste rules governing the management, storage, treatment, and disposal of hazardous waste, Minn. Rules pts. 7045.0020, 7045.0075, 7045.0080, 7045.0102, 7045.0120, 7045.0125, 7045.0135, 7045.0139, 7045.0141, 7045.0214, 7045.0261, 7045.0275, 7045.0296, 7045.0302, 7045.0395, 7045.0458, 7045.0460, 7045.0468, 7045.0476, 7045.0478, 7045.0482, 7045.0484, 7045.0485, 7045.0534, 7045.0538, 7045.0552, 7045.0556, 7045.0564, 7045.0584, 7045.0588, 7045.0638, and the attached amendments to the MPCA permit rules, Minn. Rules pts. 7001.0150, 7001.0520, 7001.0590, 7001.0600, 7001.0620, 7001.0650, 7001.0712, and 7001.0720, to all persons who have registered their names with the MPCA for that purpose and publish the Notice and rule amendments in the State Register, and to perform any and all acts incidental thereto.

BE IT FURTHER RESOLVED, that in the event a public hearing becomes necessary, the Executive Director is hereby granted the authority and directed to call a hearing for the purpose of promulgating said rules as well as to perform any and all acts incidental thereto, including but not limited to signing an Order and Notice for Hearing, as well as acting as the MPCA's representative at all hearings.

IN WITNESS WHEREOF, I have hereunto subscribed my name this day of December 16, 1986.

Thomas J. Kalitowski
Executive Director

CERTIFICATE OF MINNESOTA POLLUTION CONTROL AGENCY'S AUTHORIZING RESOLUTION

I, Thomas J. Kalitowski, do hereby certify that I am the Executive Director of the Minnesota Pollution Control Agency, an agency duly authorized under the laws of the State of Minnesota, and that the following is a true, complete and correct copy of a resolution adopted at a meeting of the Minnesota Pollution Control Agency duly and properly called and held on the 28th day of October, 1986, that a quorum was present at said meeting, that a majority of those present voted for the resolution and that said resolution will be set forth in the minutes of said meeting and has not been rescinded or modified.

BE IT RESOLVED, that the authorization to enter into the rulemaking process for amendments to Minn. Rules chs. 7001 and 7045 governing the management, storage, treatment and disposal of hazardous waste incorporating the requirements of the Hazardous and Solid Waste Amendments of 1984 which was granted by the MPCA on April 22, 1986 is hereby withdrawn.

BE IT FURTHER RESOLVED, that the Executive Director of the Minnesota Pollution Control Agency (MPCA) is hereby granted the authority and directed to give the Notice of the MPCA's intent to adopt without a public hearing the attached amendments to the MPCA's hazardous waste rules governing the management, storage, treatment, and disposal of hazardous waste, Minn. Rules pts. 7045.0020, 7045.0075, 7045.0080, 7045.0102, 7045.0120, 7045.0125, 7045.0135, 7045.0139, 7045.0141, 7045.0214, 7045.0261, 7045.0275, 7045.0296, 7045.0302, 7045.0395, 7045.0458, 7045.0460, 7045.0468, 7045.0476, 7045.0478, 7045.0482, 7045.0484, 7045.0485, 7045.0534, 7045.0538, 7045.0552, 7045.0556, 7045.0564, 7045.0584, 7045.0588, 7045.0638, and the attached amendments to the MPCA permit rules, Minn. Rules pts. 7001.0150, 7001.0520, 7001.0590, 7001.0600, 7001.0620, 7001.0650, 7001.0712, and 7001.0720, to all persons who have registered their names with the MPCA for that purpose and publish the Notice and rule amendments in the State Register, and to perform any and all acts incidental thereto.

BE IT FURTHER RESOLVED, that in the event a public hearing becomes necessary, the Executive Director is hereby granted the authority and directed to call a hearing for the purpose of promulgating said rules as well as to perform any and all acts incidental thereto, including but not limited to signing an Order and Notice for Hearing, as well as acting as the MPCA's representative at all hearings.

IN WITNESS WHEREOF, I have hereunto subscribed my name this day of December 16, 1986.

Thomas J. Kalitowski
Executive Director

Pollution Control Agency

Proposed Permanent Rules Relating to Hazardous Waste Codification

Rules as Proposed

7001.0150 TERMS AND CONDITIONS OF PERMITS.

Subpart 1. [Unchanged.]

Subp. 2. Special conditions. Each draft and final permit must contain conditions necessary for the permittee to achieve compliance with applicable Minnesota or federal statutes or rules and any conditions that the agency determines to be necessary to protect human health and the environment. If applicable to the circumstances, the conditions must include:

A. and B. [Unchanged.]

C. A requirement that the permittee retain the following items for at least three years from the date of the sample, measurement, report, certification, or application, after which time this period must be automatically extended during the course of an unresolved enforcement action or at the request of the director:

(1) and (2) [Unchanged.]

(3) records of the date, exact location, and time of monitoring and testing which is related to compliance with the terms and conditions of the permit or compliance with Minnesota and federal pollution control statutes and rules, the name of the individual who performed the sampling or measurements, the date the analysis was performed, the name of the individual who performed the analysis, the analytical techniques or methods used, and the results of the analysis; and

(4) if applicable, reports required by part 7001.0720, subpart 2, item E; and

(5) if applicable, the certification required by part 7045.0478, subpart 3.

D. [Unchanged.]

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Subp. 3. [Unchanged.]

7001.0520 PERMIT REQUIREMENTS.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Permits by rule.** The owner or operator of the following facilities shall be deemed to have obtained a hazardous waste facility permit without making application for it unless the director finds that the following conditions are not met:

A. [Unchanged.]

B. Publicly owned treatment works that accept hazardous waste for treatment, if the owner or operator:

(1) and (2) [Unchanged.]

(3) complies with parts 7045.0452, subpart 2; 7045.0474; 7045.0476; 7045.0478, subparts 1, 2, and 3, items A to C; and 7045.0482, subparts 1, 2, and 3; and for National Pollutant Discharge Elimination System permits issued after November 8, 1984, part 7045.0485; and

(4) accepts a waste that meets all applicable federal, Minnesota, and local pretreatment requirements for that waste if it were to be discharged into the publicly owned treatment works through a sewer, pipe, or other conveyance.

C. and D. [Unchanged.]

Subp. 4. [Unchanged.]

7001.0590 PART B INFORMATION REQUIREMENTS FOR SURFACE IMPOUNDMENTS.

Except as otherwise provided in part 7045.0532, subpart 1, if the applicant proposes to store, treat, or dispose of hazardous waste in surface impoundment facilities, the applicant shall submit detailed plans and specifications accompanied by an engineering report which collectively includes the following information in addition to the information required by part 7001.0560:

A. to K. [Unchanged.]

L. Information reasonably ascertainable by the owner or operator on the potential for the public to be exposed to

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hazardous wastes or hazardous waste constituents through releases related to the unit. At a minimum, the information must address:

(1) reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(2) the potential pathways of human exposure to hazardous wastes or constituents resulting from releases described in subitem (1); and

(3) the potential magnitude and nature of the human exposure resulting from the releases.

M. Owners and operators of surface impoundments who have already submitted a Part B application and were required to submit the exposure information required in item L to EPA by Code of Federal Regulations, title 40, section 270.10(j), must also submit that information to the director.

7001.0600 PART B INFORMATION REQUIREMENTS FOR WASTE PILES.

Except as otherwise provided by part 7045.0534, subpart 1, if the applicant proposes to store or treat hazardous waste in waste piles, the applicant shall furnish the information required by items A to ~~L~~ M in addition to the information required by part 7001.0560:

A. [Unchanged.]

B. If an exemption is sought to parts 7045.0534, subparts 2, items A and B, and 3; and 7045.0484 as provided by part 7045.0534, subpart 1, an explanation of compliance with part 7045.0534, subpart 1, items A to D or detailed plans and an engineering report describing how the requirements of part 7045.0534, subpart 1, items A to D will be met.

C. to L. [Unchanged.]

M. A description of how each waste pile, including the liners and appurtenances for control of run-on and run-off will be inspected in order to meet the requirements of part 7045.0534, subpart 6. This information shall be included in the inspection plan required by part 7001.0560, item E.

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7001.0620 PART B INFORMATION REQUIREMENTS FOR LANDFILLS.

Except as otherwise provided by part 7045.0538, subpart 1, if the applicant proposes to dispose of hazardous waste in a landfill, the applicant shall furnish the information designated in items A to ~~J~~ L in addition to the information required by part 7001.0560:

A. to G. [Unchanged.]

H. If bulk or noncontainerized liquid waste or waste containing free liquids ~~is to be~~ were landfilled before May 8, 1985, and an explanation of compliance with the requirements of part 7045.0538, subpart 10 was submitted to EPA by Code of Federal Regulations, title 40, section 270.21(h), that explanation must also be submitted to the director.

I. and J. [Unchanged.]

K. Information reasonably ascertainable by the owner or operator on the potential for the public to be exposed to hazardous constituents through releases related to the unit. At a minimum, the information must address:

(1) reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(2) the potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described in subitem (1);

(3) the potential magnitude and nature of the human exposure resulting from the releases.

L. Owners or operators of a landfill who have already submitted a Part B application and were required to submit the exposure information required in item K to EPA by Code of Federal Regulations, title 40, section 270.10(j), must also submit that information to the director.

7001.0650 INTERIM STATUS.

Subpart 1. Qualifying for interim status. Except as provided in subpart 2, during the period after the submission of Part A of a hazardous waste facility permit application to the

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Environmental Protection Agency or to the director and prior to a final determination by the agency on the permit application, the owner or operator of an existing hazardous waste facility or a facility in existence on the effective date of statutory or regulatory amendments under the Resource Conservation and Recovery Act that render the facility subject to the requirement to have a hazardous waste facility permit shall be considered to be in compliance with the requirement to obtain a permit if the director finds that the Environmental Protection Agency has granted the owner or operator interim status or if the director finds:

A. that the owner or operator has submitted a timely and complete Part A of the hazardous waste facility permit application to the Environmental Protection Agency or to the director; and

B. that the owner or operator is in compliance with parts 7045.0552 to 7045.0642;

C. that the agency or the EPA has not previously refused to issue a new or modified hazardous waste facility permit for the facility; and

D. that the agency or the EPA has not previously revoked without reissuance a hazardous waste facility permit for the facility.

Subp. 2. to 6. [Unchanged.]

Subp. 7. Termination of interim status. Interim status terminates automatically when the agency has taken final administrative action on the permit application or when terminated by Code of Federal Regulations, title 40, section 270.73(c). The following constitute justification for the director to commence proceedings to terminate interim status:

A. and B. [Unchanged.]

7001.0712 RESEARCH, DEVELOPMENT, AND DEMONSTRATION PERMITS.

Subpart 1. Scope. This part applies to research, development, or demonstration facilities other than land treatment demonstration facilities governed by part 7001.0710.

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Subp. 2. **Permit requirement.** A person who desires to own or operate a research, development, or demonstration facility utilizing an innovative and experimental hazardous waste treatment technology or process for which permit standards have not been adopted in chapter 7045 shall request a permit from the agency.

Subp. 3. **Terms of permit.** A permit governed by this part is effective for a fixed term not to exceed one year. At the request of the permittee, the director shall renew the permit for one additional year if the director finds that the permittee is in compliance with the conditions of the permit and that the operation of the facility does not pose a threat to human health and the environment. In no event shall the director renew the permit more than three times.

Subp. 4. **Conditions of permit.** The permit shall authorize the receipt and treatment by the facility of only those types and quantities of hazardous waste that the director considers necessary for the purpose of determining the efficiency and performance capabilities of the technology or process and the effects of the technology or process on human health and the environment.

The permit shall contain all applicable special and general conditions in parts 7001.0150 and 7001.0720 and conditions concerning financial responsibility under parts 7045.0498 to 7045.0524, closure, and remedial action. The permit shall provide for the immediate termination of all operations at the facility at any time upon receipt of notification from the director that termination of operations is necessary to protect human health or the environment.

7001.0720 TERMS AND CONDITIONS OF HAZARDOUS WASTE FACILITY PERMITS.

Subpart 1. **Term of permit.** Except as provided in part 7001.0712, subpart 3, a hazardous waste facility permit is effective for a fixed term not to exceed five years.

Subp. 2. [Unchanged.]

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7045.0020 DEFINITIONS.

Subpart 1. to 55. [Unchanged.]

Subp. 55a. Marketer. "Marketer" means a person who, for the purpose of burning for energy recovery, processes, blends, or distributes waste oil, used oil, or hazardous waste. "Marketer" includes a generator who processes, distributes, or blends such fuel directly to a person who burns it.

Subp. 56. to 102. [Unchanged.]

Subp. 102a. Waste oil. "Waste oil" means virgin oil that is discarded before use.

Subp. 103. to 108. [Unchanged.]

7045.0075 PETITIONS.

Subpart 1. [Unchanged.]

Subp. 2. Petitions to exclude a waste produced at a particular facility. Petitions to exclude a waste produced at a particular facility are as follows:

A. Any person seeking to exclude a waste at a particular generating facility from regulation under this chapter may petition under these provisions. The petitioner must demonstrate to the satisfaction of the agency that the waste produced by a particular generating facility does not meet any of the criteria under which the waste was listed as a hazardous waste and, in the case of an acutely hazardous waste meeting the criteria in part 7045.0129, subpart 1, item B, that it also does not meet the criteria of part 7045.0129, subpart 1, item C. In determining whether to exclude a waste as requested by the petition, the agency must consider the factors considered at the time the waste was listed and, if the agency has reason to believe that other factors, including additional constituents, could also cause the waste to be hazardous, the agency must also consider these other factors. In order to exclude a waste as requested by the petition, the agency must determine that no factor exists that warrants retaining the classification of the waste as hazardous. A waste which is so excluded may still, however, be a hazardous waste by operation

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of part 7045.0131.

B. and C. [Unchanged.]

D. If the waste is listed with codes "I," "C," "R," or "E" in part 7045.0135, the petitioner must show that ~~demonstration samples of~~ the waste do does not exhibit a relevant characteristic defined in part 7045.0131 using any applicable test methods prescribed in part 7045.0131. The petitioner also must show that the waste does not exhibit any of the other characteristics in part 7045.0131 using any applicable method prescribed in part 7045.0131. In determining whether to exclude a waste as requested by the petition, the agency must consider the factors considered at the time the waste was listed and, if the agency has reason to believe that other factors, including additional constituents, could also cause the waste to be hazardous, the agency must also consider these other factors. In order to exclude a waste as requested by the petition, the agency must determine that no factor exists that warrants retaining the classification of the waste as hazardous. A waste which is so excluded, however, may still be a hazardous waste by operation of part 7045.0131.

E. If the waste is listed with code "T" in part 7045.0135, ~~the petitioner must demonstrate that:~~ subitems (1) to (4) apply.

~~(1) demonstration samples of the waste do~~ The petitioner must demonstrate that the waste:

(a) does not contain the constituent or constituents that caused the agency to list the waste, using the appropriate test methods prescribed in Code of Federal Regulations, title 40, part 261, appendix III ~~(1983)~~; or

~~(2)~~ (b) although containing one or more of the hazardous constituents, as defined in part 7045.0141, that caused the agency to list it, the waste does not meet the criterion of part 7045.0129, subpart 1, item C, when considering the factors in part 7045.0129, subpart 1, item C, subitems (1) to (11).

(2) In determining whether to exclude a waste as

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requested by the petition, the agency must consider the factors considered at the time the waste was listed and, if the agency has reason to believe that other factors, including additional constituents, could also cause the waste to be hazardous, the agency must also consider these other factors. In order to exclude a waste as requested by the petition, the agency must determine that no factor exists that warrants retaining the classification of the waste as hazardous.

(3) The petitioner must demonstrate that the waste does not exhibit any of the characteristics defined in part 7045.0131 using any applicable methods prescribed therein.

(4) A waste which is so excluded, however, still may be a hazardous waste by operation of part 7045.0131.

F. If the waste is listed with the code "H" in part 7045.0135, the petitioner must demonstrate that the waste does not meet the criterion of part 7045.0129, subpart 1, item B~~,~~ ~~and that the waste does not meet the criterion of part 7045.0129, subpart 1, when considering the factors listed in part 7045.0129, subpart 1, item C, subitems (1) to (11).~~

(1) In determining whether to exclude a waste as requested by the petition, the agency must consider the factors considered at the time the waste was listed and, if the agency has reason to believe that other factors, including additional constituents, could also cause the waste to be hazardous, the agency must also consider these other factors. In order to exclude a waste as requested by the petition, the agency must determine that no factor exists that warrants retaining the classification of the waste as hazardous.

(2) The petitioner must demonstrate that the waste does not exhibit any of the characteristics defined in part 7045.0131 using any applicable methods prescribed therein.

(3) A waste which is so excluded, however, still may be a hazardous waste by operation of part 7045.0131.

G. [Unchanged.]

H. After receiving a petition for an exclusion, the agency or the director may request any additional information

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which it may reasonably require to evaluate the petition. An exclusion will only apply to the waste generated at the individual facility covered by the demonstration and will not apply to waste from any other facility. The agency may exclude only part of the waste for which the demonstration is submitted when it has reason to believe that variability of the waste justifies a partial exclusion. ~~The agency may grant a temporary exclusion before making a final decision whenever it finds that there is a substantial likelihood that an exclusion will be finally granted.~~

Subp. 3. and 4. [Unchanged.]

7045.0080 DATA AVAILABILITY.

Subpart 1. Applicability. The following apply to requests to the Minnesota Pollution Control Agency for information relating to facilities and sites for treatment, storage, and disposal of hazardous waste.

Subp. 2. Response to requests. Except as provided in subpart 3, the director shall issue a written response to a requester of information within ten working days of receiving the request for information. The written response shall state what information will and will not be provided and shall state the reason for denying any portion of the request.

Subp. 3. Extensions. The following provisions apply to extensions of time to respond to requests for information:

A. If the request for information does not reasonably identify the information sought, the director shall so notify the requester. There shall be excluded from the ten-day response period established under subpart 2, or any extension to that response period provided under item B, any time that elapses between the date that a requester is notified by the director that the request does not reasonably identify the records sought, and the date that the requester furnishes a reasonable identification.

B. In circumstances in which an extension is necessary due to one or more of the following reasons, the

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ten-day response period established in subpart 2 shall be extended by the director for a period of days commensurate with the additional response time required, not to exceed ten additional working days:

(1) there is a need to search for and collect the requested records from field regional offices or other establishments that are separate from the agency's central office;

(2) there is a need to search for, collect, and appropriately examine a voluminous amount of separate and distinct records which are demanded in a single request; or

(3) there is a need for consultation with another agency having a substantial interest in the determination of the request.

The director must notify the requester within the initial ten-day period that the ten-day extension is required and must state the reasons for the extension and the date by which the agency expects to be able to issue its response to the request for information.

Subp. 4. Failure to act. If the director fails to issue a response within the response time provided in subpart 2, or an extension provided under subpart 3, a requester may commence an action under Minnesota Statutes, section 13.08 to obtain the requested information.

7045.0102 MIXTURES OF HAZARDOUS AND NONHAZARDOUS WASTES.

Except as provided in parts 7045.0125, subpart 10 and 7045.0665, subpart 5, mixtures of hazardous and nonhazardous wastes are as follows:

A. to G. [Unchanged.]

7045.0120 EXEMPT WASTES.

The following wastes may be stored, labeled, transported, treated, processed, and disposed of without complying with the requirements of this chapter:

~~A. normal-refuse-from-households-including-garbage, trash, and sanitary wastes in septic tanks.~~ --Households include

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~~single-and-multiple-residences,-hotels,-and-motels,~~ household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (for example, refuse derived fuel) or reused. "Household waste" means any material including garbage, trash, and sanitary wastes in septic tanks derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas. A resource recovery facility managing municipal solid waste shall not be considered to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this chapter, if the facility:

(1) Receives or burns only:

(a) household waste from single and multiple dwellings, hotels, motels, and other residential sources; and

(b) solid waste from commercial or industrial sources that does not contain hazardous waste.

(2) Does not accept hazardous wastes and the owner or operator of the facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in the facility.

(3) The owner or operator complies with the following requirements in the event hazardous waste is inadvertently received at the facility:

(a) the owner or operator makes an effort to determine the source of the hazardous waste, to return the waste to the generator and to notify the agency of the responsible generator; and, it is not possible for the owner or operator to return the waste to the generator, the owner or operator maintains a record of known hazardous waste received with a description of the waste, quantity received, and date received;

(b) the owner or operator complies with the following requirements for hazardous waste generators: parts 7045.0221; 7045.0261; 7045.0265; 7045.0270; 7045.0275; 7045.0292, subpart 1, items B to G; 7045.0294; and 7045.0296;

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(c) all hazardous wastes are shipped for treatment, storage, or disposal to a permitted facility within one year after receipt; and

(d) the owner or operator has a solid waste permit, if required.

Such inadvertently received hazardous waste is not subject to the quantity limitations of part 7045.0219, subpart 1, nor the accumulation provisions of part 7045.0292, subpart 1, item A.

(4) The owner or operator evaluates the ash in accordance with the procedures in part 7045.0214, subpart 2, and the solid waste permit conditions.

B. to P. [Unchanged.]

7045.0125 MANAGEMENT OF WASTE BY USE, REUSE, RECYCLING, AND RECLAMATION.

Subpart 1. to 9. [Unchanged.]

Subp. 10. Hazardous waste which is beneficially used by burning. Hazardous waste that is transported or stored ~~prior to~~ before a beneficial use by burning is subject to regulation under the following:

A. and B. [Unchanged.]

C. A cement kiln that burns hazardous waste is subject to the following requirements:

(1) No fuel that contains any hazardous waste may be burned in any cement kiln unless the kiln fully complies with the thermal treatment standards of part 7045.0542.

(2) This requirement does not apply to petroleum refinery hazardous wastes containing oil that are converted into petroleum coke at the same facility at which the wastes were generated unless the resulting coke product would exhibit one or more of the characteristics of hazardous waste in part 7045.0131.

D. No person who produces, distributes, or markets any fuel that contains a hazardous waste may distribute or market the fuel if the invoice or bill of sale fails:

(1) to bear the following statement: "WARNING: THIS FUEL CONTAINS HAZARDOUS WASTE"; and

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(2) to list the hazardous waste contained therein. The statement must be located in a conspicuous place on every invoice or bill of sale and must appear in conspicuous and legible type in contrast by typography, layout, or color with other printed matter on the invoice or bill of sale.

Subp. 11. **Hazardous wastes from petroleum refining.** The following hazardous wastes that are produced from petroleum refining are not subject to the labeling requirements of subpart 10, item D.

A. Fuels produced from petroleum refining hazardous waste containing oil if:

(1) the materials are generated and reinserted on-site into the refining process;

(2) the contaminants are removed; and

(3) refining waste containing oil is converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products and which is classified as a number SIC 2911 facility under the Office of Management and Budget Standard Industrial Classification Manual.

B. Fuels produced from oily materials resulting from normal petroleum refining production and transportation practices; if

(1) contaminants are removed; and

(2) the oily materials are converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products and which is classified as a number SIC 2911 facility under the Office of Management and Budget Standard Industrial Classification Manual.

C. Hazardous wastes containing oil which are converted into petroleum coke at the same facility at which the wastes were generated, unless the resulting coke product would exceed one or more of the characteristics of hazardous waste in part 7045.0131.

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7045.0135 LISTS OF HAZARDOUS WASTES.

Subpart 1. [Unchanged.]

Subp. 2. Hazardous wastes from nonspecific sources.

Hazardous wastes from nonspecific sources are listed as follows:

Hazardous Waste No.	Hazardous Waste	Hazard Code
Generic:		
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more by volume of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, and trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more by volume of one or more of the above halogenated solvents or those solvents listed in F001, F004, and F005; and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F003	The following spent nonhalogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent nonhalogenated solvents; and all spent solvent mixtures/blends, containing, before use, one or more of the above nonhalogenated solvents and a total of ten percent or more by volume of one or more of those solvents listed in F001, F002, F004, and F005; and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I)
F004	The following spent nonhalogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more by volume of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002, and F005; and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F005	The following spent nonhalogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, and pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more by volume of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002, and F004; and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I,T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum, (2) tin plating on carbon steel, (3) zinc plating (segregated basis) on carbon steel, (4) aluminum	(T)

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	or zinc-aluminum plating on carbon steel, (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel, and (6) chemical etching and milling of aluminum	
F007	Spent cyanide plating bath solutions from electroplating operations	(R,T)
F008	Plating bath sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process	(R,T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	(R,T)
F010	Quenching bath residues from oil baths from metal heat-treating operations where cyanides are used in the process	(R,T)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat-treating operations	(R,T)
F012	Quenching wastewater treatment sludges from metal heat-treating operations where cyanides are used in the process	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum	(T)
F020	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-tri-chlorophenol.	(H)
F021	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- and tetrachlorophenols. This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol.	(H)
F024	Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor cleanout wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. This does not include light ends, spent filters and filter aids, spent dessicants, wastewater, wastewater treatment sludges, and spent catalysts.	(T)
F026	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. This listing does not include	(H)

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formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.

F028 Residues resulting from the incineration or thermal treatment of soil contaminated with hazardous waste Nos. F020, F021, F022, F023, F026, and F027. (T)

Subp. 3. **Hazardous waste from specific sources.** Hazardous wastes from specific sources are listed as follows:

Industry and Hazardous Waste No.	Hazardous Waste	Hazard Code
Wood Preservation:		
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol	(T)
Inorganic Pigments:		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments, anhydrous and hydrated	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments	(T)
K008	Oven residue from the production of chrome oxide green pigments	(T)
Organic Chemicals:		
K009	Distillation bottoms from the production of acetaldehyde from ethylene	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(R,T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	(R,T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(T)
K015	Still bottoms from the distillation of benzyl chloride	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(T)
K024	Distillation bottoms from the production of phthalic anhydride from napthalene	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(T)

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K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production	(R,T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene	(T)
K083	Distillation bottoms from aniline production	(T)
K103	Process residues from aniline extraction from the production of aniline	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes	(T)
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	(C,T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine	(T)
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)

Inorganic Chemicals:

K071	Brine purification muds from the mercury cell process in chlorine production, when separately pre-purified brine is not used	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production	(T)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production	(T)

Pesticides:

K031	By-product salts generated in the production of monosodium methanearsonate (MSMA) and cacodylic acid	(T)

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K032	Wastewater treatment sludge from the production of chlordane	(T)
K033	Wastewater and scrub water from the chlorination of cyclo-pentadiene in the production of chlordane	(T)
K034	Filter solids from the filtration of hexachloro-cyclopentadiene in the production of chlordane	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	(T)
K035	Wastewater treatment sludges generated in the production of creosote	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	(T)
K037	Wastewater treatment sludges from the production of disulfoton	(T)
K038	Wastewater from the washing and stripping of phorate production	(T)
K039	Filter cake from the filtration of diethylphos-phorodithioic acid in the production of phorate	(T)
K040	Wastewater treatment sludge from the production of phorate	(T)
K041	Wastewater treatment sludge from the production of toxaphene	(T)
K098	Untreated process wastewater from the production of toxaphene	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
K099	Untreated wastewater from the production of 2,4-D	(T)
	Explosives:	
K044	Wastewater treatment sludges from the manufacturing and processing of explosives	(R)
K045	Spent carbon from the treatment of wastewater containing explosives	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds	(T)
K047	Pink/red water from operations involving 2,4,6-trinitro-toluene (TNT)	(R)
	Petroleum Refining:	
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	(T)
K049	Slop oil emulsion solids from the petroleum refining industry	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
K051	American Petroleum Institute separator sludge from the petroleum refining industry as specified in The Manual on Disposal of Refinery Wastes, volume 1, issued by the American Petroleum Institute, (Washington, D.C., 1969), available at the State of Minnesota Law Library	(T)
K052	Tank bottoms (leaded) from the petroleum refinery industry	(T)
	Iron and Steel:	
K061	Emission control dust or sludge from the primary production of steel in electric furnaces	(T)
K062	Spent pickle liquor from generated by steel finishing operations of plants that produce iron or steel	(C,T)
	Secondary Lead:	
K069	Emission control dust or sludge from secondary lead smelting	(T)
K100	Waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting	(T)

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Veterinary Pharmaceuticals:		
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
Ink Formulation:		
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead	(T)
Coke:		
K060	Ammonia still lime sludge from coking operations	(T)
K087	Decanter tank tar sludge from coking operations	(T)

Subp. 4. Discarded commercial chemical products, off-specification species, containers, and spill residues. The following materials or items are hazardous wastes when they are discarded or intended to be discarded ~~as defined in part 7045.0020, when they are burned for purposes of energy recovery in lieu of their original intended use, when they are used to produce fuels in lieu of their original intended use, when they are applied to the land in lieu of their original intended use, or when they are contained in products that are applied to the land in lieu of their original intended use~~; when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment; or when, in lieu of their original use, they are produced for use as, or as a component of a fuel, distributed for use as a fuel, or burned as a fuel.

A. to D. [Unchanged.]

E. the commercial chemical products or manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates referred to in items A to D and listed in the following table, are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, items B and C. The primary hazardous properties of these materials have

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been indicated by the letters T (toxicity), and R (reactivity). Absence of a letter indicates that the compound is listed only for acute toxicity. These wastes and their corresponding hazardous waste numbers are listed as follows:

Hazardous Wastes from Commercial Chemical Products

Hazardous Waste No.	Substance	Hazard Code
P023	Acetaldehyde, chloro-	
P002	Acetamide, N-(aminothioxomethyl)-	
P057	Acetamide, 2-fluoro-	
P058	Acetic acid, fluoro-, sodium salt	
P066	Acetimidic acid, N-[(methylcarbamoyl)oxy] thio-, methyl ester	
P001	3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin and salts when present at concentrations greater than 0.3 percent	
P002	1-Acetyl-2-thiourea	
P003	Acrolein	
P070	Aldicarb	
P004	Aldrin	
P005	Allyl alcohol	
P006	Aluminum phosphide	(R,T)
P007	5-(Aminomethyl)-3-isoxazolol	
P008	4-Aminopyridine	
P009	Ammonium picrate	(R)
P119	Ammonium vanadate	
P010	Arsenic acid	
P012	Arsenic (III) oxide	
P011	Arsenic (V) oxide	
P011	Arsenic pentoxide	
P012	Arsenic trioxide	
P038	Arsine, diethyl-	
P054	Aziridine	
P013	Barium cyanide	
P024	Benzenamine, 4-chloro-	
P077	Benzenamine, 4-nitro-	
P028	Benzene, (chloromethyl)-	
P042	1,2-Benzenediol, 4-[1-hydroxy-2-(methyl-amino)ethyl]-	
P014	Benzenethiol	
P028	Benzyl chloride	
P015	Beryllium dust	
P016	Bis(chloromethyl) ether	
P017	Bromoacetone	
P018	Brucine	
P021	Calcium cyanide	
P123	Camphene, octachloro-	
P103	Carbamimidoselenoic acid	
P022	Carbon bisulfide	
P022	Carbon disulfide	
P095	Carbonyl chloride	
P033	Chlorine cyanide	
P023	Chloroacetaldehyde	
P024	p-Chloroaniline	
P026	1-(o-Chlorophenyl)thiourea	
P027	3-Chloropropionitrile	
P029	Copper cyanides	
P030	Cyanides (soluble cyanide salts), not elsewhere specified	
P031	Cyanogen	
P033	Cyanogen chloride	
P036	Dichlorophenylarsine	
P037	Dieldrin	
P038	Diethylarsine	
P039	O,O-Diethyl S-[2-(ethylthio)ethyl] phosphorodithioate	
P041	Diethyl-p-nitrophenyl phosphate	

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P040	O,O-Diethyl O-pyrazinyl phosphorothioate		
P043	Diisopropyl fluorophosphate		
P044	Dimethoate		
P045	3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino)carbonyl] oxime		
P071	O,O-Dimethyl O-p-nitrophenyl phosphorothioate		
P082	Dimethylnitrosamine		
P046	alpha, alpha-Dimethylphenethylamine		
P047	4,6-Dinitro-o-cresol and salts		
P034	4,6-Dinitro-o-cyclohexylphenol		
P048	2,4-Dinitrophenol		
P020	Dinoseb		
P085	Diphosphoramide, octamethyl-		
P039	Disulfoton		
P049	2,4-Dithiobiuret		
P109	Dithiopyrophosphoric acid, tetraethyl ester		
P050	Endosulfan		
P088	Endothall		
P051	Endrin		
P042	Epinephrine		
P046	Ethanamine, 1,1-dimethyl-2-phenyl-		
P084	Ethenamine, N-methyl-N-nitroso-		
P101	Ethyl cyanide		
P054	Ethylenimine		
P097	Famphur		
P056	Fluorine		
P057	Fluoroacetamide		
P058	Fluoroacetic acid, sodium salt		
P065	Fulminic acid, mercury(II) salt	(R,T)	
P059	Heptachlor		
P051	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene		
P037	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,exo-1,4:5,8-dimethanonaphthalene		
P060	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,endo-dimethanonaphthalene		
P004	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,exo-dimethanonaphthalene		
P060	Hexachlorohexahydro-endo,endo-dimethanonaphthalene		
P062	Hexaethyl tetraphosphate		
P116	Hydrazinecarbothioamide		
P068	Hydrazine, methyl-		
P063	Hydrocyanic acid		
P063	Hydrogen cyanide		
P096	Hydrogen phosphide		
P064	Isocyanic acid, methyl ester		
P007	3(2H)-Isoxazolone, 5-(aminomethyl)-		
P092	Mercury, (acetato-O)phenyl-		
P065	Mercury fulminate	(R,T)	
P016	Methane, oxybis(chloro)-		
P112	Methane, tetranitro-	(R)	
P118	Methanethiol, trichloro-		
P059	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-		
P066	Methomyl		
P067	2-Methylaziridine		
P068	Methyl hydrazine		
P064	Methyl isocyanate		
P069	2-Methyllactonitrile		
P071	Methyl parathion		
P072	alpha-Naphthylthiourea		
P073	Nickel carbonyl		
P074	Nickel cyanide		
P074	Nickel(II) cyanide		
P073	Nickel tetracarbonyl		
P075	Nicotine and salts		
P076	Nitric oxide		
P077	p-Nitroaniline		
P078	Nitrogen dioxide		

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1	P076	Nitrogen(II) oxide	
2	P078	Nitrogen(IV) oxide	
3	P081	Nitroglycerine	(R)
4	P082	N-Nitrosodimethylamine	
5	P084	N-Nitrosomethylvinylamine	
6	P050	5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-	
7		hexachloro, cyclic sulfite	
8	P085	Octamethylpyrophosphoramide	
9	P087	Osmium oxide	
10	P087	Osmium tetroxide	
11	P088	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	
12	P089	Parathion	
13	P034	Phenol, 2-cyclohexyl-4,6-dinitro-	
14	P048	Phenol, 2,4-dinitro-	
15	P047	Phenol, 2,4-dinitro-6-methyl-, and salts	
16	P020	Phenol, 2,4-dinitro-6-(1-methylpropyl)-	
17	P009	Phenol, 2,4,6-trinitro-, ammonium salt	(R)
18	P036	Phenyl dichloroarsine	
19	P092	Phenylmercuric acetate	
20	P093	N-Phenylthiourea	
21	P094	Phorate	
22	P095	Phosgene	
23	P096	Phosphine	
24	P041	Phosphoric acid, diethyl p-nitrophenyl ester	
25	P044	Phosphorodithioic acid, O,O-dimethyl S-	
26		[2-(methylamino)-2-oxoethyl]ester	
27	P043	Phosphorofluoridic acid, bis(1-methylethyl) ester	
28	P094	Phosphorothioic acid, O,O-diethyl S-	
29		(ethylthio)methyl ester	
30	P089	Phosphorothioic acid, O,O-diethyl	
31		O-(p-nitrophenyl) ester	
32	P040	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	
33	P097	Phosphorothioic acid, O,O-dimethyl O-[p-	
34		((dimethylamino)-sulfonyl)phenyl]ester	
35	P110	Plumbane, tetraethyl-	
36	P098	Potassium cyanide	
37	P099	Potassium silver cyanide	
38	P070	Propanal, 2-methyl-2-(methylthio)-,	
39		O- [(methylamino)carbonyl]oxime	
40	P101	Propanenitrile	
41	P027	Propanenitrile, 3-chloro-	
42	P069	Propanenitrile, 2-hydroxy-2-methyl-	
43	P081	1,2,3-Propanetriol, trinitrate-	(R)
44	P017	2-Propanone, 1-bromo-	
45	P102	Propargyl alcohol	
46	P003	2-Propenal	
47	P005	2-Propen-1-ol	
48	P067	1,2-Propylenimine	
49	P102	2-Propyn-1-ol	
50	P008	4-Pyridinamine	
51	P075	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-,	
52		and salts	
53	P111	Pyrophosphoric acid, tetraethyl ester	
54	P103	Selenourea	
55	P104	Silver cyanide	
56	P105	Sodium azide	
57	P106	Sodium cyanide	
58	P107	Strontium sulfide	
59	P108	Strychnidin-10-one, and salts	
60	P018	Strychnidin-10-one, 2,3-dimethoxy-	
61	P108	Strychnine and salts	
62	P115	Sulfuric acid, thallium(I) salt	
63	P109	Tetraethyldithiopyrophosphate	
64	P110	Tetraethyl lead	
65	P111	Tetraethylpyrophosphate	
66	P112	Tetranitromethane	(R)
67	P062	Tetraphosphoric acid, hexaethyl ester	
68	P113	Thallic oxide	
69	P113	Thallium(III) oxide	
70	P114	Thallium(I) selenide	
71	P115	Thallium(I) sulfate	

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P045	Thiofanox	
P049	Thioimidodicarbonic diamide	
P014	Thiophenol	
P116	Thiosemicarbazide	
P026	Thiourea, (2-chlorophenyl)-	
P072	Thiourea, 1-naphthalenyl-	
P093	Thiourea, phenyl-	
P123	Toxaphene	
P118	Trichloromethanethiol	
P119	Vanadic acid, ammonium salt	
P120	Vanadium pentoxide	
P120	Vanadium(V) oxide	
P001	Warfarin when present at concentrations greater than 0.3 percent	
P121	Zinc cyanide	
P122	Zinc phosphide when present at concentrations greater than 10 percent	(R,T)

F. The commercial chemical products or manufacturing chemical intermediates, or off-specification commercial chemical products referred to in items A to D, and listed in the following table are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, item A. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), R (reactivity), I (ignitability), and C (corrosivity). Absence of a letter indicates that the compound is listed only for toxicity. These wastes and their corresponding hazardous waste numbers are listed as follows:

Hazardous Wastes from Commercial Chemical Products

Hazardous Waste No.	Substance	Hazard Code
U001	Acetaldehyde	(I)
U034	Acetaldehyde, trichloro-	
U187	Acetamide, N-(4-ethoxyphenyl)-	
U005	Acetamide, N-9H-fluoren-2-yl-	
U112	Acetic acid, ethyl ester	(I)
U144	Acetic acid, lead salt	
U214	Acetic acid, thallium(I) salt	
U002	Acetone	(I)
U003	Acetonitrile	(I,T)
U248	3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin and salts when present at concentrations of 0.3 percent or less	
U004	Acetophenone	
U005	2-Acetylaminofluorene	
U006	Acetyl chloride	(C,R,T)
U007	Acrylamide	
U008	Acrylic acid	(I)
U009	Acrylonitrile	
U150	Alanine, 3-[p-bis(2-chloroethyl)amino] phenyl-,L-	
U011	Amitrole	
U328	2-Amino-1-methylbenzene	
U353	4-Amino-1-methylbenzene	
U012	Aniline	(I,T)
U014	Auramine	

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1	U015	Azaserine	
2	U010	Azirino(2',3':3,4)pyrrolo(1,2-a)indole-4,	
3		7-dione, 6-amino-8-[((aminocarbonyl)	
4		oxy)methyl]-1,1a,2,8,8a,8b-Hexahydro-	
5		8a-methoxy-5-methyl-,	
6	U157	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	
7	U016	Benz[c]acridine	
8	U016	3,4-Benzacridine	
9	U017	Benzal chloride	
10	U018	Benz[a]anthracene	
11	U018	1,2-Benzanthracene	
12	U094	1,2-Benzanthracene, 7,12-dimethyl-	
13	U012	Benzenamine	(I,T)
14	U014	Benzenamine, 4,4'-carbonimidoylbis	
15		(N,N-dimethyl)-	
16	U049	Benzenamine, 4-chloro-2-methyl-	
17	U093	Benzenamine, N,N'-dimethyl-4-phenylazo-	
18	U158	Benzenamine, 4,4'-methylenebis (2-chloro)-	
19	U222	Benzenamine, 2-methyl-, hydrochloride	
20	U181	Benzenamine, 2-methyl-5-nitro	
21	U019	Benzene	(I,T)
22	U038	Benzeneacetic acid, 4-chloro-alpha-	
23		(4-chlorophenyl)-alpha-hydroxy, ethyl ester	
24	U030	Benzene, 1-bromo-4-phenoxy-	
25	U037	Benzene, chloro-	
26	U190	1,2-Benzenedicarboxylic acid anhydride	
27	U028	1,2-Benzenedicarboxylic acid,	
28		[bis(2-ethyl-hexyl)] ester	
29	U069	1,2-Benzenedicarboxylic acid, dibutyl ester	
30	U088	1,2-Benzenedicarboxylic acid, diethyl ester	
31	U102	1,2-Benzenedicarboxylic acid, dimethyl ester	
32	U107	1,2-Benzenedicarboxylic acid, di-n-octyl ester	
33	U070	Benzene, 1,2-dichloro-	
34	U071	Benzene, 1,3-dichloro-	
35	U072	Benzene, 1,4-dichloro-	
36	U017	Benzene, (dichloromethyl)-	
37	U223	Benzene, 1,3-diisocyanatomethyl-	(R,T)
38	U239	Benzene, dimethyl-	(I,T)
39	U201	1,3-Benzenediol	
40	U127	Benzene, hexachloro-	
41	U056	Benzene, hexahydro-	(I)
42	U188	Benzene, hydroxy-	
43	U220	Benzene, methyl-	
44	U105	Benzene, 1-methyl-1-2,4-dinitro-	
45	U106	Benzene, 1-methyl-2,6 dinitro-	
46	U203	Benzene, 1,2-methylenedioxy-4-allyl-	
47	U141	Benzene, 1,2-methylenedioxy-4-propenyl-	
48	U090	Benzene, 1,2-methylenedioxy-4-propyl-	
49	U055	Benzene, (1-methylethyl)-	(I)
50	U169	Benzene, nitro-	(I,T)
51	U183	Benzene, pentachloro-	
52	U185	Benzene, pentachloronitro-	
53	U020	Benzenesulfonic acid chloride	(C,R)
54	U020	Benzenesulfonyl chloride	(C,R)
55	U207	Benzene, 1,2,4,5-tetrachloro-	
56	U023	Benzene, (trichloromethyl)-	(C,R,T)
57	U234	Benzene, 1,3,5-trinitro-	(R,T)
58	U021	Benzidine	
59	U202	1,2-Benzisothiazolin-3-one,1,1-dioxide and salts	
60	U120	Benzo[j,k]fluorene	
61	U022	Benzo[a]pyrene	
62	U022	3,4-Benzopyrene	
63	U197	p-Benzoquinone	
64	U023	Benzotrichloride	(C,R,T)
65	U050	1,2-Benzphenanthrene	
66	U085	2,2'-Bioxirane	(I,T)
67	U021	(1,1'-Biphenyl)-4,4'-diamine	
68	U073	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-	
69	U091	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-	
70	U095	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	
71	U024	Bis(2-chloroethoxy) methane	

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1	U027	Bis(2-chloroisopropyl) ether	
2	U244	Bis(dimethylthiocarbamoyl) disulfide	
3	U028	Bis(2-ethylhexyl) phthalate	
4	U246	Bromine cyanide	
5	U225	Bromoform	
6	U030	4-Bromophenyl phenyl ether	
7	U128	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	
8	U172	1-Butanamine, N-butyl-N-nitroso-	
9	U035	Butanoic acid, 4-[bis(2-chloroethyl)	
10		amino] benzene-	
11	U031	1-Butanol	(I)
12	U159	2-Butanone	(I,T)
13	U160	2-Butanone peroxide	(R,T)
14	U053	2-Butenal	
15	U074	2-Butene, 1,4-dichloro-	(I,T)
16	U031	n-Butyl alcohol	(I)
17	U136	Cacodylic acid	
18	U032	Calcium chromate	
19	U238	Carbamic acid, ethyl ester	
20	U178	Carbamic acid, methylnitroso-, ethyl ester	
21	U176	Carbamide, N-ethyl-N-nitroso-	
22	U177	Carbamide, N-methyl-N-nitroso-	
23	U219	Carbamide, thio-	
24	U097	Carbamoyl chloride, dimethyl-	
25	U215	Carbonic acid, dithallium(I) salt	
26	U156	Carbonochloridic acid, methyl ester	(I,T)
27	U033	Carbon oxyfluoride	(R,T)
28	U211	Carbon tetrachloride	
29	U033	Carbonyl fluoride	(R,T)
30	U034	Chloral	
31	U035	Chlorambucil	
32	U036	Chlordane, technical	
33	U026	Chlornaphazine	
34	U037	Chlorobenzene	
35	U039	4-Chloro-m-cresol	
36	U041	1-Chloro-2,3-epoxypropane	
37	U042	2-Chloroethyl vinyl ether	
38	U044	Chloroform	
39	U046	Chloromethyl methyl ether	
40	U047	beta-Chloronaphthalene	
41	U048	o-Chlorophenol	
42	U049	4-Chloro-o-toluidine, hydrochloride	
43	U032	Chromic acid, calcium salt	
44	U050	Chrysene	
45	U051	Creosote	
46	U052	Cresols	
47	U052	Cresylic acid	
48	U053	Crotonaldehyde	
49	U055	Cumene	(I)
50	U246	Cyanogen bromide	
51	U197	1,4-Cyclohexadienedione	
52	U056	Cyclohexane	(I)
53	U057	Cyclohexanone	(I)
54	U130	1,3-Cyclopentadiene, 1,2,3,4,5, 5-hexachloro-	
55	U058	Cyclophosphamide	
56	U240	2,4-D, salts and esters	
57	U059	Daunomycin	
58	U060	DDD, 1,1-(2,2-dichloroethylidene)-bis-4-	
59		chlorobenzene	
60	U061	DDT, 1,1'-(2,2,2-trichloroethylidene)-bis	
61		-4-chlorobenzene	
62	U142	Decachlorooctahydro-1,3,4-metheno	
63		-2H-cyclobuta[c,d]-pentalen-2-one	
64	U062	Diallate	
65	U133	Diamine	(R,T)
66	U221	Diaminotoluene	
67	U063	Dibenz[a,h]anthracene	
68	U063	1,2:5,6-Dibenzanthracene	
69	U064	1,2:7,8-Dibenzopyrene	
70	U064	Dibenz[a,i]pyrene	
71	U066	1,2-Dibromo-3-chloropropane	

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1	U069	Dibutyl phthalate	
2	U062	S-(2,3-Dichloroallyl) diisopropylthiocarbamate	
3	U070	o-Dichlorobenzene	
4	U071	m-Dichlorobenzene	
5	U072	p-Dichlorobenzene	
6	U073	3,3'-Dichlorobenzidine	
7	U074	1,4-Dichloro-2-butene	(I,T)
8	U075	Dichlorodifluoromethane	
9	U192	3,5-Dichloro-N-(1,1-dimethyl-2-	
10		propynyl) benzamide	
11	U060	Dichloro diphenyl dichloroethane	
12	U061	Dichloro diphenyl trichloroethane	
13	U078	1,1-Dichloroethylene	
14	U079	1,2-Dichloroethylene	
15	U025	Dichloroethyl ether	
16	U081	2,4-Dichlorophenol	
17	U082	2,6-Dichlorophenol	
18	U240	2,4-Dichlorophenoxyacetic acid, salts and esters	
19	U083	1,2-Dichloropropane	
20	U084	1,3-Dichloropropene	
21	U085	1,2:3,4-Diepoxybutane	(I,T)
22	U108	1,4-Diethylene dioxide	
23	U086	N,N-Diethylhydrazine	
24	U087	O,O-Diethyl-S-methyl-dithiophosphate	
25	U088	Diethyl phthalate	
26	U089	Diethylstilbestrol	
27	U148	1,2-Dihydro-3,6-pyridazinedione	
28	U090	Dihydrosafrole	
29	U091	3,3'-Dimethoxybenzidine	
30	U092	Dimethylamine	(I)
31	U093	Dimethylaminoazobenzene	
32	U094	7,12-Dimethylbenz[a]anthracene	
33	U095	3,3'-Dimethylbenzidine	
34	U096	alpha,alpha-Dimethylbenzylhydroperoxide	(R)
35	U097	Dimethylcarbamoyl chloride	
36	U098	1,1-Dimethylhydrazine	
37	U099	1,2-Dimethylhydrazine	
38	U101	2,4-Dimethylphenol	
39	U102	Dimethyl phthalate	
40	U103	Dimethyl sulfate	
41	U105	2,4-Dinitrotoluene	
42	U106	2,6-Dinitrotoluene	
43	U107	Di-n-octyl phthalate	
44	U108	1,4-Dioxane	
45	U109	1,2-Diphenylhydrazine	
46	U110	Dipropylamine	(I)
47	U111	Di-n-propylnitrosamine	
48	U001	Ethanal	(I)
49	U174	Ethanamine, N-ethyl-N-nitroso-	
50	U067	Ethane, 1,2-dibromo-	
51	U076	Ethane, 1,1-dichloro-	
52	U077	Ethane, 1,2-dichloro-	
53	U114	1,2-Ethanediylbiscarbamodithioic acid	
54	U131	Ethane, 1,1,1,2,2,2-hexachloro-	
55	U024	Ethane, 1,1'[methylenebis(oxy)]bis [2-chloro]-	
56	U003	Ethanenitrile	(I,T)
57	U117	Ethane, 1,1'-oxybis-	(I)
58	U025	Ethane, 1,1'-oxybis[2-chloro]-	
59	U184	Ethane, pentachloro-	
60	U208	Ethane, 1,1,1,2-tetrachloro-	
61	U209	Ethane, 1,1,2,2-tetrachloro-	
62	U218	Ethanethioamide	
63	U227	Ethane, 1,1,2-trichloro-	
64	U247	Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)	
65	U043	Ethene, chloro-	
66	U042	Ethene, 2-chloroethoxy-	
67	U078	Ethene, 1,1-dichloro-	
68	U079	Ethene, trans-1,2-dichloro-	
69	U210	Ethene, 1,1,2,2-tetrachloro-	
70	U173	Ethanol, 2,2'-(nitrosoimino)bis-	
71	U004	Ethanone, 1-phenyl-	

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1	U006	Ethanoyl chloride	(C,R,T)
2	U359	2-Ethoxyethanol	
3	U112	Ethyl acetate	(I)
4	U113	Ethyl acrylate	(I)
5	U238	Ethyl carbamate(urethan)	
6	U038	Ethyl 4,4'-dichlorobenzilate	
7	U114	Ethylenebis(dithiocarbamic acid), salts and esters	
8	U067	Ethylene dibromide	
9	U077	Ethylene dichloride	
10	U359	Ethylene glycol monoethyl ether	
11	U115	Ethylene oxide	(I,T)
12	U116	Ethylene thiourea	
13	U117	Ethyl ether	(I)
14	U076	Ethylidene dichloride	
15	U118	Ethyl methacrylate	
16	U119	Ethyl methanesulfonate	
17	U139	Ferric dextran	
18	U120	Fluoranthene	
19	U122	Formaldehyde	
20	U123	Formic acid	(C,T)
21	U124	Furan	(I)
22	U125	2-Furancarboxaldehyde	(I)
23	U147	2,5-Furandione	
24	U213	Furan, tetrahydro-	(I)
25	U125	Furfural	(I)
26	U124	Furfuran	(I)
27	U206	D-Glucopyranose, 2-deoxy-2(3-methyl-	
28		3-nitrosoureido)-	
29	U126	Glycidylaldehyde	
30	U163	Guanidine, N-nitroso-N-methyl-N'-nitro-	
31	U127	Hexachlorobenzene	
32	U128	Hexachlorobutadiene	
33	U129	Hexachlorocyclohexane (gamma isomer)	
34	U130	Hexachlorocyclopentadiene	
35	U131	Hexachloroethane	
36	U132	Hexachlorophene	
37	U243	Hexachloropropene	
38	U133	Hydrazine	(R,T)
39	U086	Hydrazine, 1,2-diethyl-	
40	U098	Hydrazine, 1,1-dimethyl-	
41	U099	Hydrazine, 1,2-dimethyl-	
42	U109	Hydrazine, 1,2-diphenyl-	
43	U134	Hydrofluoric acid	(C,T)
44	U134	Hydrogen fluoride	(C,T)
45	U135	Hydrogen sulfide	
46	U096	Hydroperoxide, 1-methyl-1-phenylethyl-	(R)
47	U136	Hydroxydimethylarsine oxide	
48	U116	2-Imidazolidinethione	
49	U137	Indeno[1,2,3-cd]pyrene	
50	U139	Iron dextran	
51	U140	Isobutyl alcohol	(I,T)
52	U141	Isosafrole	
53	U142	Kepone	
54	U143	Lasiocarpine	
55	U144	Lead acetate	
56	U145	Lead phosphate	
57	U146	Lead subacetate	
58	U129	Lindane	
59	U147	Maleic anhydride	
60	U148	Maleic hydrazide	
61	U149	Malononitrile	
62	U150	Melphalan	
63	U151	Mercury	
64	U152	Methacrylonitrile	(I,T)
65	U092	Methanamine, N-methyl-	(I)
66	U029	Methane, bromo-	
67	U045	Methane, chloro-	(I,T)
68	U046	Methane, chloromethoxy-	
69	U068	Methane, dibromo-	
70	U080	Methane, dichloro-	
71	U075	Methane, dichlorodifluoro-	

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U138	Methane, iodo-		
U119	Methanesulfonic acid, ethyl ester		
U211	Methane, tetrachloro-		
U121	Methane, trichlorofluoro-		
U153	Methanethiol		(I,T)
U225	Methane, tribromo-		
U044	Methane, trichloro-		
U121	Methane, trichlorofluoro-		
U123	Methanoic acid		(C,T)
U036	4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-		
U154	Methanol		(I)
U155	Methapyrilene		
U247	Methoxychlor		
U154	Methyl alcohol		(I)
U029	Methyl bromide		
U186	1-Methylbutadiene		(I)
U045	Methyl chloride		(I,T)
U156	Methyl chlorocarbonate		(I,T)
U226	Methyl chloroform		
U157	3-Methylcholanthrene		
U158	4,4'-Methylenebis(2-chloroaniline)		
U132	2,2'-Methylenebis(3,4,6-trichlorophenol)		
U068	Methylene bromide		
U080	Methylene chloride		
U122	Methylene oxide		
U159	Methyl ethyl ketone		(I,T)
U160	Methyl ethyl ketone peroxide		(R,T)
U138	Methyl iodide		
U161	Methyl isobutyl ketone		(I)
U162	Methyl methacrylate		(I,T)
U163	N-Methyl-N'-nitro-N-nitrosoquanidine		
U161	4-Methyl-2-pentanone		(I)
U164	Methylthiouracil		
U010	Mitomycin C		
U059	5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxyl]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-		
U165	Naphthalene		
U047	Naphthalene, 2-chloro-		
U166	1,4-Naphthalenedione		
U236	2,7-Naphthalenedisulfonic acid, 3,3'-[3,3'-dimethyl-(1,1'-biphenyl)-4,4'diyl)]-bis (azo)bis(5-amino-4-hydroxy)-,tetrasodium salt		
U166	1,4 -Naphthoquinone		
U167	1-Naphthylamine		
U168	2-Naphthylamine		
U167	alpha-Naphthylamine		
U168	beta-Naphthylamine		
U026	2-Naphthylamine, N,N-bis(2-chloro-ethyl)-		
U169	Nitrobenzene		(I,T)
U170	p-Nitrophenol		
U171	2-Nitropropane		(I,T)
U172	N-Nitrosodi-n-butylamine		
U173	N-Nitrosodiethanolamine		
U174	N-Nitrosodiethylamine		
U111	N-Nitrosodi-N-propylamine		
U176	N-Nitroso-N-ethylurea		
U177	N-Nitroso-N-methylurea		
U178	N-Nitroso-N-methylurethane		
U179	N-Nitrosopiperidine		
U180	N-Nitrosopyrrolidine		
U181	5-Nitro-o-toluidine		
U193	1,2-Oxathiolane, 2,2-dioxide		
U058	2H-1,3,2-Oxazaphosphorine, 2 [bis(2-chloro-ethyl)amino]-tetrahydro-, 2-oxide		
U115	Oxirane		(I,T)
U041	Oxirane, 2-(chloromethyl)-		
U182	Paraldehyde		
U183	Pentachlorobenzene		

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1	U184	Pentachloroethane	
2	U185	Pentachloronitrobenzene	
3	U186	1,3-Pentadiene	(I)
4	U187	Phenacetin	
5	U188	Phenol	
6	U048	Phenol, 2-chloro-	
7	U039	Phenol, 4-chloro-3-methyl-	
8	U081	Phenol, 2,4-dichloro-	
9	U082	Phenol, 2,6-dichloro-	
10	U101	Phenol, 2,4-dimethyl-	
11	U170	Phenol, 4-nitro-	
12	U137	1,10-(1,2-Phenylene)pyrene	
13	U145	Phosphoric acid, lead salt	
14	U087	Phosphorodithioic acid, O,O-diethyl S-methyl ester	
15	U189	Phosphorus sulfide	(R)
16	U190	Phthalic anhydride	
17	U191	2-Picoline	
18	U192	Pronamide	
19	U194	1-Propanamine	(I,T)
20	U110	1-Propanamine, N-propyl-	(I)
21	U066	Propane, 1,2-dibromo-3-chloro-	
22	U149	Propanedinitrile	
23	U171	Propane, 2-nitro-	(I,T)
24	U027	Propane, 2,2'oxybis[2-chloro]-	
25	U193	1,3-Propane sultone	
26	U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)	
27	U126	1-Propanol, 2,3-epoxy-	
28	U140	1-Propanol, 2-methyl-	(I,T)
29	U002	2-Propanone	(I)
30	U007	2-Propenamide	
31	U084	Propene, 1,3-dichloro-	
32	U243	1-Propene, 1,1,2,3,3,3-hexachloro-	
33	U009	2-Propenenitrile	
34	U152	2-Propenenitrile, 2-methyl-	(I,T)
35	U008	2-Propenoic acid	(I)
36	U113	2-Propenoic acid, ethyl ester	(I)
37	U118	2-Propenoic acid, 2-methyl-, ethyl ester	
38	U162	2-Propenoic acid, 2-methyl-, methyl ester,	(I,T)
39	U194	n-Propylamine	(I,T)
40	U083	Propylene dichloride	
41	U196	Pyridine	
42	U155	Pyridine, 2-[(2-dimethylamino)ethyl]-2-thenylamino-	
43	U179	Pyridine, hexahydro-N-nitroso-	
44	U191	Pyridine, 2-methyl-	
45	U164	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	
46	U180	Pyrrole, tetrahydro-N-nitroso-	
47	U200	Reserpine	
48	U201	Resorcinol	
49	U202	Saccharin and salts	
50	U203	Safrole	
51	U204	Selenious acid	
52	U204	Selenium dioxide	
53	U205	Selenium disulfide	(R,T)
54	U015	L-Serine, diazoacetate (ester)	
55	U089	4,4'-Stilbenediol, alpha,alpha'-diethyl-	
56	U206	Streptozotocin	
57	U135	Sulfur hydride	
58	U103	Sulfuric acid, dimethyl ester	
59	U189	Sulfur phosphide	(R)
60	U205	Sulfur selenide	(R,T)
61	U207	1,2,4,5-Tetrachlorobenzene	
62	U208	1,1,1,2-Tetrachloroethane	
63	U209	1,1,2,2-Tetrachloroethane	
64	U210	Tetrachloroethylene	
65	U213	Tetrahydrofuran	(I)
66	U214	Thallium(I) acetate	
67	U215	Thallium(I) carbonate	
68	U216	Thallium(I) chloride	
69	U217	Thallium(I) nitrate	
70	U218	Thioacetamide	
71	U153	Thiomethanol	(I,T)

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U219	Thiourea	
U244	Thiram	
U220	Toluene	
U221	Toluenediamine	
U223	Toluene diisocyanate	(R,T)
U328	o-Toluidine	
U353	p-Toluidine	
U222	o-Toluidine hydrochloride	
U011	1H-1,2,4-Triazol-3-amine	
U226	1,1,1-Trichloroethane	
U227	1,1,2-Trichloroethane	
U228	Trichloroethene	
U228	Trichloroethylene	
U121	Trichloromonofluoromethane	
U234	sym-Trinitrobenzene	(R,T)
U182	1,3,5-Trioxane, 2,4,6-trimethyl-	
U235	Tris (2,3-dibromopropyl) phosphate	
U236	Trypan blue	
U237	Uracil, 5[bis(2-chloroethyl)amino]-	
U237	Uracil mustard	
U043	Vinyl chloride	
U248	Warfarin when present at concentrations of 0.3 percent or less	
U239	Xylene	(I)
U200	Yohimban-16-carboxylic acid, 11, 17-di-methoxy-18-[(3,4,5-trimethoxy-benzoyl)oxy]-, methyl ester,	
U249	Zinc phosphide when present at concentrations of 10 percent or less	

Subp. 5. [Unchanged.]

7045.0139 BASIS FOR LISTING HAZARDOUS WASTES.

The following table lists the constituents which caused the agency to list wastes as hazardous in part 7045.0135, subparts 2 and 3. The notation "N.A." indicates the waste is hazardous because it fails the test for the characteristics of ignitability, corrosivity, reactivity, or toxicity, and the listing of a chemical name is not applicable.

Basis for Listing Hazardous Wastes

Hazardous Waste No.	Hazardous Constituents For Which Listed
F001	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, o-dichlorobenzene, trichlorofluoromethane
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed)
F007	Cyanide (salts)
F008	Cyanide (salts)
F009	Cyanide (salts)
F010	Cyanide (salts)
F011	Cyanide (salts)
F012	Cyanide (complexed)

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F019 Hexavalent chromium, cyanide (complexed)
F020 Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
F021 Penta- and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives
F022 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans
F023 Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
F024 Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1,2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorobenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene
F026 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans
F027 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
F028 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
K001 Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichloro-, phenols, tetrachlorophenols, 2,4-dinitrophenol, cresosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno (1,2,3,cd)pyrene, benz(a)-anthracene, dibenz(a)anthracene, acenaphthalene
K002 Hexavalent chromium, lead
K003 Hexavalent chromium, lead
K004 Hexavalent chromium
K005 Hexavalent chromium, lead
K006 Hexavalent chromium
K007 Cyanide (complexed), hexavalent chromium
K008 Hexavalent chromium
K009 Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid
K010 Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde
K011 Acrylonitrile, acetonitrile, hydrocyanic acid
K013 Hydrocyanic acid, acrylonitrile, acetonitrile
K014 Acetonitrile, acrylamide
K015 Benzyl chloride, chlorobenzene, toluene, benzotrichloride
K016 Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene
K017 Epichlorohydrin, chloroethers [bis (chloromethyl) ether and bis (2-chloroethyl) ethers], trichloropropane, dichloropropanols
K018 1,2-dichloroethane, trichloroethylene,

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1		hexachlorobutadiene, hexachlorobenzene
2	K019	Ethylene dichloride, 1,1,1-trichloroethane,1,1,2-
3		trichloroethane, tetrachloroethanes(1,1,2,2-
4		tetrachloroethane and 1,1,1,2-tetrachloroethane),
5		trichloroethylene, tetrachloroethylene, carbon tetra-
6		chloride, chloroform, vinyl chloride, vinylidene chloride
7	K020	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-
8		trichloroethane, tetrachloroethanes (1,1,2,2-tetra-
9		chloroethane and 1,1,1,2-tetrachloroethane), trichloro-
10		ethylene, tetrachloroethylene, carbon tetrachloride,
11		chloroform, vinyl chloride, vinylidene chloride
12	K021	Antimony, carbon tetrachloride, chloroform
13	K022	Phenol, tars (polycyclic aromatic hydrocarbons
14	K023	Phthalic anhydride, maleic anhydride
15	K024	Phthalic anhydride, 1,4-naphthoquinone
16	K025	Meta-dinitrobenzene, 2,4-dinitrotoluene
17	K026	Paraldehyde, pyridines, 2-picoline
18	K027	Toluene diisocyanate, toluene-2, 4-diamine
19	K028	1,1,1-trichloroethane, vinyl chloride
20	K029	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl
21		chloride, vinylidene chloride, chloroform
22	K030	Hexachlorobenzene, hexachlorobutadiene,
23		hexachloroethane, 1,1,1,2-tetrachloroethane,
24		1,1,2,2-tetrachloroethane, ethylene dichloride
25	K031	Arsenic
26	K032	Hexachlorocyclopentadiene
27	K033	Hexachlorocyclopentadiene
28	K034	Hexachlorocyclopentadiene
29	K035	Creosote, chrysene, naphthalene, fluoranthene, benzo-
30		(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene,
31		benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene
32	K036	Toluene, phosphorodithioic and phosphorothioic acid esters
33	K037	Toluene, phosphorodithioic and phosphorothioic acid esters
34	K038	Phorate, formaldehyde, phosphorodithioic and
35		phosphorothioic acid esters
36	K039	Phosphorodithioic and phosphorothioic acid esters
37	K040	Phorate, formaldehyde, phosphorodithioic and
38		phosphorothioic acid esters
39	K041	Toxaphene
40	K042	Hexachlorobenzene, ortho-dichlorobenzene
41	K043	2,4-dichlorophenol, 2,6-dichlorophenol,
42		2,4,6-trichlorophenol
43	K044	N.A.
44	K045	N.A.
45	K046	Lead
46	K047	N.A.
47	K048	Hexavalent chromium, lead
48	K049	Hexavalent chromium, lead
49	K050	Hexavalent chromium
50	K051	Hexavalent chromium, lead
51	K052	Lead
52	K060	Cyanide, naphthalene, phenolic compounds, arsenic
53	K061	Hexavalent chromium, lead, cadmium
54	K062	Hexavalent chromium, lead
55	K069	Hexavalent chromium, lead, cadmium
56	K071	Mercury
57	K073	Chloroform, carbon tetrachloride, hexachloroethane,
58		trichloroethane, tetrachloroethylene, dichloro-
59		ethylene, 1,1,2,2-tetrachloroethane
60	K083	Aniline, diphenylamine, nitrobenzene, phenylenediamine
61	K084	Arsenic
62	K085	Benzene, dichlorobenzenes, trichlorobenzenes, tetra-
63		chlorobenzenes, pentachlorobenzene, hexachlorobenzene,
64		benzyl chloride
65	K086	Lead, hexavalent chromium
66	K087	Phenol, naphthalene
67	K093	Phthalic anhydride, maleic anhydride
68	K094	Phthalic anhydride
69	K095	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane,
70		1,1,2,2-tetrachloroethane
71	K096	1,2-dichloroethane, 1,1,1-trichloroethane,

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		1,1,2-trichloroethane
	K097	Chlordane, heptachlor
	K098	Toxaphene
	K099	2,4-dichlorophenol, 2,4,6-trichlorophenol
	K100	Hexavalent chromium, lead, cadmium
	K101	Arsenic
	K102	Arsenic
	K103	Aniline, nitrobenzene, phenylenediamine
	K104	Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine
	K105	Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol
	K106	Mercury
	K111	2,4-Dinitrotoluene
	K112	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline
	K113	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline
	K114	2,4-Toluenediamine, o-toluidine, p-toluidine
	K115	2,4-Toluenediamine
	K116	Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene
	K117	Ethylene dibromide
	K118	Ethylene dibromide
	K136	Ethylene dibromide

7045.0141 HAZARDOUS CONSTITUENTS.

Hazardous constituents are as follows:

Acetonitrile
Acetophenone
3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin and salts
2-Acetylaminofluorene
Acetyl chloride
1-Acetyl-2-thiourea
Acrolein
Acrylamide
Acrylonitrile
Aflatoxins
Aldrin
Allyl alcohol
Aluminum phosphide
4-Aminobiphenyl
6-Amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)-8a-methoxy-5-methylcarbamate azirino(2',3':3,4) pyrrolo(1,2-a)indole-4,7-dione, (ester), (Mitomycin C)
5-(Aminomethyl)-3-isoxazolol
Amitrole
Aniline
Antimony and compounds not otherwise specified in this list
Aramite
Arsenic and compounds not otherwise specified in this list
Arsenic acid
Arsenic pentoxide
Arsenic trioxide
Auramine
Azaserine
Barium and compounds not otherwise specified in this list
Barium cyanide
Benz[c]acridine
Benz[a]anthracene
Benzene
Benzene, 2-amino-1-methyl (o-Toluidine)
Benzene, 4-amino-1-methyl (p-Toluidine)
Benzenearsonic acid
Benzene, dichloromethyl-
Benzenethiol
Benzidine
Benzo[b]fluoranthene
Benzo[j]fluoranthene
Benzo[a]pyrene
p-Benzoquinone

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Benzotrichloride
Benzyl chloride
Beryllium and compounds not otherwise specified in this list
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl) ether
N,N-Bis(2-chloroethyl)-2-naphthylamine
Bis(2-chloroisopropyl) ether
Bis(chloromethyl) ether
Bis(2-ethylhexyl) phthalate
Bromoacetone
Bromomethane
4-Bromophenyl phenyl ether
Brucine
2-Butanone peroxide
Butyl benzyl phthalate
2-sec-Butyl-4,6-dinitrophenol (DNBP)
Cadmium and compounds not otherwise specified in this list
Calcium chromate
Calcium cyanide
Carbon disulfide
Carbon oxyfluoride
Chloral
Chlorambucil
Chlordane (alpha and gamma isomers)
Chlorinated benzenes not otherwise specified in this list
Chlorinated ethane not otherwise specified in this list
Chlorinated fluorocarbons not otherwise specified in this list
Chlorinated naphthalene not otherwise specified in this list
Chlorinated phenol not otherwise specified in this list
Chloroacetaldehyde
Chloroalkyl ethers not otherwise specified in this list
p-Chloroaniline
Chlorobenzene
Chlorobenzilate
2-Chloro-1,3-butadiene (chloroprene)
p-Chloro-m-cresol
1-Chloro-2,3-epoxybutane
1-Chloro-2,3-epoxypropane
2-Chloroethyl vinyl ether
Chloroform
Chloromethane
Chloromethyl methyl ether
2-Chloronaphthalene
2-Chlorophenol
1-(o-Chlorophenyl)thiourea
3-Chloropropene (allyl chloride)
3-Chloropropionitrile
Chromium and compounds not otherwise specified in this list
Chrysene
Citrus red No. 2
Coal Tars
Copper cyanide
Creosote
Cresols
Crotonaldehyde
Cyanides (soluble salts and complexes) not otherwise specified in this list
Cyanogen
Cyanogen bromide
Cyanogen chloride
Cycasin
2-Cyclohexyl-4,6-dinitrophenol
Cyclophosphamide
Daunomycin
DDD (1,1-(2,2-dichloroethylidene)-bis-4-chlorobenzene)
DDE (Ethylene, 1,1-dichloro-2,2-bis(4-chlorophenyl)-)
DDT (1,1'-(2,2,2-trichloroethylidene)-bis-4-chlorobenzene)
Diallate
Dibenz[a,h]acridine
Dibenz[a,j]acridine
Dibenz[a,h]anthracene

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1 7H-Dibenzo[c,g]carbazole
2 Dibenzo[a,e]pyrene
3 Dibenzo[a,h]pyrene
4 Dibenzo[a,i]pyrene
5 1,2-Dibromo-3-chloropropane
6 1,2-Dibromoethane
7 Dibromomethane
8 Di-n-butyl phthalate
9 o-Dichlorobenzene
10 m-Dichlorobenzene
11 p-Dichlorobenzene
12 Dichlorobenzene not otherwise specified in this list
13 3,3'-Dichlorobenzidine
14 1,4-Dichloro-2-butene
15 Dichlorodifluoromethane
16 1,1-Dichloroethane
17 1,2-Dichloroethane
18 trans-1,2-Dichloroethene
19 Dichloroethylene not otherwise specified in this list
20 1,1-Dichloroethylene
21 Dichloromethane
22 2,4-Dichlorophenol
23 2,6-Dichlorophenol
24 2,4-Dichlorophenoxyacetic acid, salts and esters (2,4-D)
25 Dichlorophenylarsine
26 Dichloropropane not otherwise specified in this list
27 1,2-Dichloropropane
28 Dichloropropanol not otherwise specified in this list
29 Dichloropropene not otherwise specified in this list
30 1,3-Dichloropropene
31 Dieldrin
32 1,2:3,4-Diepoxybutane
33 Diethylarsine
34 N,N-Diethylhydrazine
35 O,O-Diethyl-S-methyl ester of phosphorodithioic acid
36 O,O-Diethylphosphoric acid, O-p-nitrophenyl ester
37 Diethyl phthalate
38 O,O-Diethyl-O-(2-pyrazinyl)phosphorothioate
39 Diethylstilbestrol
40 Dihydrosafrole
41 3,4-Dihydroxy-alpha-(methylamino)methyl benzyl alcohol
42 Di-isopropylfluorophosphate (DFP)
43 Dimethoate
44 3,3'-Dimethoxybenzidine
45 p-Dimethylaminoazobenzene
46 7,12-Dimethylbenz[a]anthracene
47 3,3'-Dimethylbenzidine
48 Dimethylcarbamoyl chloride
49 1,1-Dimethylhydrazine
50 1,2-Dimethylhydrazine
51 3,3-Dimethyl-1-(methylthio)-2-butanone-O-[(methylamino) carbonyl]
52 oxime
53 alpha, alpha-Dimethylphenethylamine
54 2,4-Dimethylphenol
55 Dimethyl phthalate
56 Dimethyl sulfate
57 Dinitrobenzene not otherwise specified in this list
58 4,6-Dinitro-o-cresol and salts
59 2,4-Dinitrophenol
60 2,4-Dinitrotoluene
61 2,6-Dinitrotoluene
62 Di-n-octyl phthalate
63 1,4-Dioxane
64 Diphenylamine
65 1,2-Diphenylhydrazine
66 Di-n-propylnitrosamine
67 Disulfoton
68 2,4-Dithiobiuret
69 Endosulfan
70 Endrin and metabolites
71 Ethyl carbamate

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Ethyl cyanide
Ethylenebisdithiocarbamic acid, salts and esters
Ethylene glycol monoethyl ether (Ethanol, 2-ethoxy)
Ethyleneimine
Ethylene oxide
Ethylenethiourea
Ethyl methacrylate
Ethyl methanesulfonate
Fluoranthene
Fluorine
2-Fluoroacetamide
Fluoroacetic acid, sodium salt
Formaldehyde
Formic acid
Glycidylaldehyde
Halomethane not otherwise specified in this list
Heptachlor
Heptachlor epoxide (alpha, beta, and gamma isomers)
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclohexane (all isomers)
Hexachlorocyclopentadiene
Hexachlorodibenzo-p-dioxins
Hexachlorodibenzofurans
Hexachloroethane
1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo, endo-dimethanonaphthalene
Hexachlorophene
Hexachloropropene
Hexaethyl tetraphosphate
Hydrazine
Hydrocyanic acid
Hydrofluoric acid
Hydrogen sulfide
Hydroxydimethylarsine oxide
Indeno(1,2,3-cd)pyrene
Iodomethane
Iron dextran
Isocyanic acid, methyl ester
Isobutyl alcohol
Isosafrole
Kepone
Lasiocarpine
Lead and compounds not otherwise specified in this list
Lead acetate
Lead phosphate
Lead subacetate
Maleic anhydride
Maleic hydrazide
Malononitrile
Melphalan
Mercury fulminate
Mercury and compounds not otherwise specified in this list
Methacrylonitrile
Methanethiol
Methapyrilene
Methomyl
Methoxychlor
2-Methylaziridine
3-Methylcholanthrene
Methyl chlorocarbonate
4,4'-Methylene-bis-(2-chloroaniline)
Methyl ethyl ketone (MEK)
Methyl hydrazine
2-Methyllactonitrile
Methyl methacrylate
Methyl methanesulfonate
2-Methyl-2-(methylthio)propionaldehyde-o-(methylcarbonyl) oxime
N-Methyl-N'-nitro-N-nitrosoguanidine
Methyl parathion
Methylthiouracil

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Mustard gas
Naphthalene
1,4-Naphthoquinone
1-Naphthylamine
2-Naphthylamine
1-Naphthyl-2-thiourea
Nickel and compounds not otherwise specified in this list
Nickel carbonyl
Nickel cyanide
Nicotine and salts
Nitric oxide
p-Nitroaniline
Nitrobenzene
Nitrogen dioxide
Nitrogen mustard and hydrochloride salt
Nitrogen mustard N-oxide and hydrochloride salt
Nitroglycerine
4-Nitrophenol
2-Nitropropane (Propane, 2-nitro)
4-Nitroquinoline-1-oxide
Nitrosamine not otherwise specified in this list
N-Nitrosodi-N-butylamine
N-Nitrosodiethanolamine
N-Nitrosodiethylamine
N-Nitrosodimethylamine
N-Nitroso-N-ethylurea
N-Nitrosomethylethylamine
N-Nitroso-N-methylurea
N-Nitroso-N-methylurethane
N-Nitrosomethylvinylamine
N-Nitrosomorpholine
N-Nitrosonornicotine
N-Nitrosopiperidine
N-Nitrosopyrrolidine
N-Nitrososarcosine
5-Nitro-o-toluidine
Octamethylpyrophosphoramide
Osmium tetroxide
7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
Paraldehyde
Parathion
Pentachlorobenzene
Pentachlorodibenzo-p-dioxins
Pentachlorodibenzofurans
Pentachloroethane
Pentachloronitrobenzene (PCNB)
Pentachlorophenol
Phenacetin
Phenol
Phenylenediamine
Phenylmercury acetate
N-Phenylthiourea
Phosgene
Phosphine
Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl]ester
(Phorate)
Phosphorothioic acid, O,O-dimethyl O-[p-(dimethylamino-
sulfonyl)phenyl] ester
Phthalic acid esters not otherwise specified in this list
Phthalic anhydride
2-Picoline
Polychlorinated biphenyl not otherwise specified in this list
Potassium cyanide
Potassium silver cyanide
Pronamide
1,3-Propane sultone
n-Propylamine
Propylthiouracil
2-Propyn-1-ol
Pyridine
Reserpine

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Recorcinol
Saccharin and salts
Safrole
Selenious acid
Selenium and compounds not otherwise specified in this list
Selenium sulfide
Selenourea
Silver and compounds not otherwise specified in this list
Silver cyanide
Sodium cyanide
Streptozotocin
Strontium sulfide
Strychnine and salts
1,2,4,5-Tetrachlorobenzene
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
Tetrachlorodibenzo-p-dioxins not otherwise specified in this list
Tetrachlorodibenzofurans
Tetrachloroethane not otherwise specified in this list
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrachloroethylene
Tetrachloromethane
2,3,4,6-Tetrachlorophenol
Tetraethyldithiopyrophosphate
Tetraethyl lead
Tetraethylpyrophosphate
Tetranitromethane
Thallium and compounds not otherwise specified in this list
Thallic oxide
Thallium (I) acetate
Thallium (I) carbonate
Thallium (I) chloride
Thallium (I) nitrate
Thallium selenide
Thallium (I) sulfate
Thioacetamide
Thiosemicarbazide
Thiourea
Thiuram
Toluene
Toluenediamine, N.O.S.
2,4-Toluenediamine
2,6-Toluenediamine
3,4-Toluenediamine
o-Toluidine hydrochloride
Tolylene diisocyanate
Toxaphene
Tribromomethane
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene
Trichloromethanethiol
Trichloromonofluoromethane
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)
2,4,5-Trichlorophenoxypropionic acid (2,4,5-TP) (Silvex)
Trichloropropane not otherwise specified in this list
1,2,3-Trichloropropane
0,0,0-Triethyl phosphorothioate
sym-Trinitrobenzene
Tris(1-azridinyl)phosphine sulfide
Tris(2,3-dibromopropyl) phosphate
Trypan blue
Uracil mustard
Vanadic acid, ammonium salt
Vanadium pentoxide
Vinyl chloride
Zinc cyanide
Zinc phosphide

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7045.0214 EVALUATION OF WASTES.

Subpart 1. and 2. [Unchanged.]

Subp. 3. Wastes generated by treatment, storage, or disposal. Wastes generated by treatment, storage, or disposal of hazardous waste are as follows:

A. [Unchanged.]

B. Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry~~, standard industrial classification codes 331 and 332~~ facilities which are classified as number 331 or 332 facilities under the Office of Management and Budget Standard Industrial Classification Manual, is not a hazardous waste unless it exhibits one or more characteristics of hazardous waste under part 7045.0131.

C. [Unchanged.]

7045.0261 MANIFEST DOCUMENT; GENERAL REQUIREMENTS.

Subpart 1. When required. A generator who transports or offers for transportation hazardous waste for off-site treatment, storage, or disposal must prepare a manifest before transporting the waste off-site. Generators shall use manifests in accordance with the requirements of items A to C and shall complete the manifest in accordance with the instructions on the manifest.

A. For shipments from either in-state or out-of-state to a facility located in Minnesota, the generator shall use a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~ and, if necessary, continuation sheets as provided in subpart 10.

B. For shipments from Minnesota to a facility located in a state (consignment state) that neither supplies nor requires the use of a manifest which is specific for that state, the generator shall use a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~ and, if necessary, continuation sheets as provided in subpart 10.

C. [Unchanged.]

Subp. 2. to 6. [Unchanged.]

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Subp. 7. **Manifest information.** The Minnesota manifest ~~{Minnesota-Form-PQ-00371-01}~~ is based on the Uniform National Manifest ~~{EPA-Form-8700-22}~~ that is required under United States Department of Transportation and United States Environmental Protection Agency regulations, as contained in Code of Federal Regulations, title 40, part 262, and Code of Federal Regulations, title 49, part 172. Manifest information requirements include those required by United States Department of Transportation and United States Environmental Protection Agency regulations and consist of the numbered items on the manifest set forth in the Appendix to Code of Federal Regulations, title 40, part 262. Additional state information requirements consist of the telephone number of the designated facility and the hazardous waste numbers specified in parts 7045.0100 to 7045.0141 for each hazardous waste specified on the manifest. Manifests must include the information specified in this subpart and in the instructions on the manifest.

Subp. 8. **Availability of manifests.** Minnesota manifests ~~{Minnesota-Form-PQ-00371-01}~~ are available from the agency or the documents section of the Minnesota Department of Administration, 117 University Avenue, St. Paul, Minnesota 55155.

Subp. 9. **Number of copies.** The manifest must 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, another copy to be returned to the generator by the facility, and the required copies to be returned to the director, pursuant to parts 7045.0265; 7045.0474, subpart 2, item D; and 7045.0580, subpart 2, item D, and any additional copies required by the generator's or designated facility's state, if other than Minnesota. Copies to be returned to the director shall be sent to: Minnesota Pollution Control Agency, Solid and Hazardous Waste Division, ~~1935 West County Road B2, Roseville~~ 520 Lafayette Road, Saint Paul, Minnesota ~~55113~~ 55155, Attention: HWIMS.

Subp. 10. **Continuation sheets.** A generator using a Minnesota manifest ~~{Minnesota-Form-PQ-00371-01}~~ shall use a

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continuation sheet to the manifest if more than two transporters are to be used to transport the waste. A generator using a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~ shall use either a continuation sheet to the manifest or an additional manifest which is completed in its entirety, if more space is required for the United States Department of Transportation description and related information on the manifest. Any United States Environmental Protection Agency approved continuation sheet may be used if it is completed and copies are distributed in accordance with this part and United States Environmental Protection Agency regulations as contained in Code of Federal Regulations, title 40, part 262. A generator using a continuation sheet to a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~ shall enter the preprinted State Manifest Document Number of the manifest into the appropriate space on the continuation sheet, and shall attach the sheet to the manifest. Continuation sheets are not provided by the state. For shipments not requiring a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~, generators shall use continuation sheets in accordance with applicable consignment state requirements.

7045.0275 PROPER HAZARDOUS WASTE MANAGEMENT.

Subpart 1. [Unchanged.]

Subp. 2. **Spills; duty to report.** Any person in control of a hazardous waste that spills, leaks, or otherwise escapes from a container, tank, or other containment system, including its associated piping, shall immediately notify the agency if the hazardous waste may cause pollution of the air, land resources, or waters of the state. The person shall use the agency's 24-hour telephone number, (612) ~~296-7373~~ 296-8100.

Subp. 3. [Unchanged.]

7045.0296 ANNUAL REPORTING.

Subpart 1. [Unchanged.]

Subp. 2. **Required information.** The annual report must contain the following information related for each hazardous waste or wastes produced during the preceding calendar year:

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A. to E. [Unchanged.]

F. a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated;

G. a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent the information is available before 1984; and

H. the certification signed by the generator or authorized representative.

Subp. 3. to 5. [Unchanged.]

7045.0302 INTERNATIONAL SHIPMENTS; SPECIAL CONDITIONS.

Subpart 1. [Unchanged.]

Subp. 2. Procedures. When shipping hazardous waste outside the state of Minnesota to a foreign country the generator must:

A. notify the administrator of the Environmental Protection Agency and the director in writing four weeks before the initial shipment of hazardous waste to each country in each calendar year. The waste must be identified by its hazardous waste identification number and its United States Department of Transportation shipping description and the name and address of the foreign consignee must be included in this notice. These notices must be sent to: "Office of International Activities (A-106)," United States Environmental Protection Agency, Washington, D.C. 20460; and Minnesota Pollution Control Agency, Division of Solid and Hazardous Waste, ~~1935 West County Road B2,~~ Roseville 520 Lafayette Road, Saint Paul, Minnesota ~~55113~~ 55155;

B. and C. [Unchanged.]

D. use a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~.

Subp. 3. [Unchanged.]

Subp. 4. Manifest. When importing hazardous waste, a person must use a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~ and meet all requirements of parts 7045.0261 and

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7045.0265 for the manifest except that:

A. and B. [Unchanged.]

Subp. 5. Annual report. Any person exporting hazardous waste identified or listed under this chapter shall file with the agency and the United States Environmental Protection Agency at the Office of International Activities (A-106) United States Environmental Protection Agency, Washington, D.C. 20460 no later than March 1 of each year, a report summarizing the types, quantities, frequency, and ultimate destination of all the hazardous waste exported during the previous calendar year.

7045.0395 HAZARDOUS WASTE DISCHARGES.

Subpart 1. and 2. [Unchanged.]

Subp. 3. Notification. An air, rail, highway, or water transporter who has discharged hazardous waste must:

A. Immediately notify the agency if the hazardous waste may cause pollution of the air, land, or waters of the state. The person shall use the agency's 24-hour telephone notification service (612) ~~296-7373~~ 296-8100;

B. to D. [Unchanged.]

Subp. 4. and 5. [Unchanged.]

7045.0458 WASTE ANALYSIS REQUIREMENTS.

Subpart 1. [Unchanged.]

Subp. 2. Waste analysis plan. The owner or operator shall develop and follow a written waste analysis plan which describes the procedures which he or she will carry out to comply with subpart 1. The owner or operator shall keep this plan at the facility. The plan must specify:

A. to E. [Unchanged.]

F. where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in parts 7045.0456; 7045.0538, subpart 10; and 7045.0542, subpart 2; and

G. [Unchanged.]

7045.0460 LOCATION STANDARDS.

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Subpart 1. and 2. [Unchanged.]

Subp. 3. Underground mines and caves. The placement of any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, or underground mine or cave is prohibited.

7045.0468 EMERGENCY PROCEDURES.

Subpart 1. to 4. [Unchanged.]

Subp. 5. Report on released material. 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 findings must be reported as provided in items A and B.

A. [Unchanged.]

B. The agency's emergency response unit must be immediately notified at the 24-hour telephone number, (612) ~~296-7373~~ 296-8100, and notification must also be given to either the governmental official designated as the on-scene coordinator for that geographical area in the applicable regional contingency plan under Code of Federal Regulations, title 40, part 1510 (1983) or to the National Response Center using their 24-hour toll free telephone number, (800) 424-8802. The report must include:

(1) to (6) [Unchanged.]

Subp. 6. Duty to notify. The hazardous waste coordinator shall immediately notify the agency if the released hazardous waste may cause pollution of the air, land resources, or waters of the state. The emergency coordinator shall use the agency's 24-hour telephone number (612) ~~296-7373~~ 296-8100.

Subp. 7. and 8. [Unchanged.]

7045.0476 MANIFEST DISCREPANCIES.

Subpart 1. [Unchanged.]

Subp. 2. Definition of a discrepancy. Manifest discrepancies are defined as significant or minor as follows:

A. [Unchanged.]

B. Minor discrepancies are all other discrepancies

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including, but not limited to, manifests other than the required Minnesota manifest ~~(Minnesota Form PCA-00371-01)~~, incomplete manifests or shipping papers, manifests or shipping papers which are inconsistent, and a container or portable tank containing hazardous waste which is not properly labeled.

Subp. 3. [Unchanged.]

7045.0478 OPERATING RECORD.

Subpart 1. and 2. [Unchanged.]

Subp. 3. Record information. All of the following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

A. to D. [Unchanged.]

E. Records and results of waste analysis performed as specified in parts 7045.0456, 7045.0458, 7045.0538, subpart 10, and 7045.0542, subpart 2.

F. to J. [Unchanged.]

K. A certification that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that the permittee generates to the degree determined by the permittee to be economically practicable; and the method of treatment, storage, or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment.

L. The certification signed by the owner or operator of the facility or an authorized representative.

7045.0482 REQUIRED REPORTS.

Subpart 1. [Unchanged.]

Subp. 2. Annual report. The owner or operator shall prepare and submit a single copy of an annual report to the director no later than March 1 for the preceding calendar year. The report form and instructions to be used may be obtained from the director. The annual report must cover facility activities during the previous calendar year and must include the following information:

A. to E. [Unchanged.]

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F. the most recent closure cost estimate under part 7045.0502 and, for disposal facilities, the most recent post-closure cost estimates under part 7045.0506; and

G. for generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of the waste generated;

H. for generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years before 1984; and

I. the certification signed by the owner or operator of the facility or his an authorized representative.

Subp. 3. and 4. [Unchanged.]

7045.0484 GROUND WATER PROTECTION.

Subpart 1. Scope. This part applies as follows:

A. Except as provided in item B, the requirements of ~~subparts 2 to 14 apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in surface impoundments, waste piles, land treatment units, or landfills. The owner or operator shall satisfy the requirements of subparts 2 to 14 for all wastes or waste constituents contained in a waste management unit at a facility that receives hazardous waste after the effective date of subparts 2 to 14. This type of waste management unit is hereinafter referred to as a "regulated unit". Owners and operators of closed facilities that have treated, stored, or disposed of hazardous waste in surface impoundments, waste piles, land treatment units, or landfills between January 26, 1983, and July 26, 1984 shall comply with Code of Federal Regulations, title 40, (1983), . A waste or a waste constituent migrating beyond the waste management area under subpart 9 is assumed to originate from a regulated unit unless the director finds that the waste or waste constituent originated from another source~~ this part apply to

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owners or operators of facilities that treat, store, or dispose of hazardous waste. The owner or operator must comply with the requirements in subitems (1) to (3) for all wastes or waste constituents contained in solid or hazardous waste management units at the facility regardless of the time the waste was placed in such units:

(1) all solid waste management units must comply with part 7045.0485;

(2) a surface impoundment, waste pile, land treatment unit, or landfill that receives hazardous waste after July 26, 1982, is a regulated unit and must comply with the requirements of subparts 2 to 14 for detecting, characterizing, and responding to releases; and

(3) the financial responsibility requirements of part 7045.0485 apply to regulated units.

B. The owner or operator is not subject to subparts 2 to 14 if the criteria in subitem (1), (2), or (3) are met:

(1) he-or-she the owner or operator is exempted under part 7045.0450;

(2) he-or-she the owner or operator designs and operates a waste pile in compliance with part 7045.0534, subpart 1 or-5; or

(3) the director finds, under part 7045.0536, subpart 8, item D, that the treatment zone of a land treatment unit that qualifies as a regulated unit does not contain levels of hazardous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of part 7045.0536, subpart 6, has not shown a statistically significant increase in hazardous constituents below the treatment zone during the operating life of the unit. An exemption can only relieve an owner or operator of responsibility to meet the requirements of subparts 2 to 14 during the post-closure care period.

C. and D. [Unchanged.]

Subp. 2. to 11. [Unchanged.]

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Subp. 12. Detection monitoring program. An owner or operator required to establish a detection monitoring program under this part shall perform the following:

A. to D. [Unchanged.]

E. The owner or operator of ~~single-lined~~ waste piles, land treatment units that have detected a significant increase in hazardous constituents or monitoring parameters below the treatment zone, and ~~double lined surface impoundments, waste piles,~~ and landfills where liquids have been detected in the leak detection system, shall comply with subitems (1) and (2):

(1) and (2) [Unchanged.]

F. to K. [Unchanged.]

Subp. 13. and 14. [Unchanged.]

7045.0485 CORRECTIVE ACTION FOR SOLID AND HAZARDOUS WASTE MANAGEMENT UNITS.

Subpart 1. Applicability. The owner or operator of a facility seeking a permit for the treatment, storage, or disposal of hazardous waste must institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any hazardous or solid waste management unit at the facility, regardless of the time at which waste was placed in the unit.

Subp. 2. Conditions. Corrective action as required under subpart 1 must be specified in the permit. The permit must contain schedules of compliance for corrective action and assurances of financial responsibility for completing corrective action. Assurance of financial responsibility must be provided in addition to the applicable requirements of parts 7045.0498 to 7045.0524.

7045.0538 LANDFILLS.

Subpart 1. to 9. [Unchanged.]

Subp. 10. Special requirements for liquid waste. Special requirements for liquid waste are as follows:

A. ~~Bulk-or-noncontainerized-liquid-waste-or-waste containing-free-liquids-must-not-be-placed-in-a-landfill-unless,~~

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~~before disposal, the liquid waste or waste containing free liquids is treated or stabilized, chemically or physically, such as by mixing with an absorbent solid, so that free liquids are no longer present~~ The placement of bulk or noncontainerized liquid hazardous waste or waste containing free liquids, whether or not absorbents have been added, is prohibited.

B. [Unchanged.]

C. The presence or absence of free liquids in containerized or bulk waste must be demonstrated using the Paint Filter Liquids Test, Method 9095 as described in Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, EPA publication number SW 846.

Subp. 11. to 13. [Unchanged.]

7045.0552 FACILITIES GOVERNED BY INTERIM STATUS.

Subpart 1. [Unchanged.]

Subp. 1a. Applicability for owners and operators of facilities not regulated as hazardous waste facilities by federal regulation. Owners and operators of hazardous waste facilities that are not federally regulated as hazardous waste facilities that are, for example, regulated as facilities by state rule only, are subject to the applicable requirements of parts 7045.0552 to 7045.0642 on the effective date of any rules that make the facility subject to regulation. The facility shall submit a Part B application for a hazardous waste facility permit to the director within one year of the effective date of any rules that first make the facility subject to the requirement to obtain a hazardous waste facility permit.

Subp. 2. to 4. [Unchanged.]

7045.0556 GENERAL FACILITY STANDARDS.

Subpart 1. to 6. [Unchanged.]

Subp. 7. Prohibition. Placement of a hazardous waste in a salt dome, salt bed formation, underground mine, or cave is prohibited.

7045.0564 WASTE ANALYSIS REQUIREMENTS.

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Subpart 1. [Unchanged.]

Subp. 2. Waste analysis plan. The owner or operator shall develop and follow a written waste analysis plan which describes the procedures which he the owner or operator will carry out to comply with subpart 1. He or she The owner or operator shall keep this plan at the facility. The plan must specify:

A. to E. [Unchanged.]

F. Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in parts 7045.0628, subpart 3; 7045.0630, subpart 4; 7045.0632, subpart 3; 7045.0634, subpart 3; 7045.0638, subpart 7; 7045.0640, subpart 2; and 7045.0642, subpart 3.

G. [Unchanged.]

7045.0584 OPERATING RECORD.

Subpart 1. and 2. [Unchanged.]

Subp. 3. Record information. The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

A. to D. [Unchanged.]

E. Records and results of waste analysis and trial tests performed as specified in parts 7045.0564; 7045.0628, subpart 3; 7045.0630, subpart 4; 7045.0632, subpart 3; 7045.0634, subpart 3; 7045.0638, subpart 7; 7045.0640, subpart 2; and 7045.0642, subpart 3.

F. to I. [Unchanged.]

7045.0588 REQUIRED REPORTS.

Subpart 1. [Unchanged.]

Subp. 2. Annual report. The owner or operator shall prepare and submit a single copy of an annual report to the director, no later than March 1 for the preceding calendar year. The report form and instructions to be used may be obtained from the director. The annual report must cover facility activities during the previous calendar year and must include the following information:

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A. to F. [Unchanged.]

G. the most recent closure cost estimate under part 7045.0610 and for disposal facilities, the most recent post-closure cost estimate under part 7045.0614; and

H. for generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of the waste generated;

I. for generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984; and

J. the certification signed by the owner or operator of the facility or the an authorized representative.

Subp. 3. and 4. [Unchanged.]

7045.0638 LANDFILLS.

Subpart 1. [Unchanged.]

Subp. 2. General operating requirements. The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

The owner or operator shall design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

Collecting and holding facilities, such as tanks or basins, associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

The owner or operator of a landfill containing hazardous waste which is subject to dispersal by wind shall cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled. As required by part 7045.0564, the waste analysis plan must include analyses needed to comply

APPROVED IN THE REVISOR OF STATUTES OFFICE BY:

with subparts 5 and, 6, and 7. As required by part 7045.0584, the owner or operator shall place the results of these analyses in the operating record of the facility.

Subp. 3. to 6. [Unchanged.]

Subp. 7. Special requirements for liquid waste. Bulk or noncontainerized liquid waste or waste containing free liquids, whether or not absorbents have been added, must not be placed in a landfill.

A. A container holding liquid waste or waste containing free liquids must not be placed in a landfill, unless:

~~A.~~ (1) all free-standing liquid has been removed by decanting, or other methods; has been mixed with absorbent or solidified so that free-standing liquid is no longer observed; or has been otherwise eliminated;

~~B.~~ (2) the container is a laboratory pack as defined in subpart 9 and is disposed of in accordance with subpart 9;

~~C.~~ (3) the container is designed to hold liquids or free liquids for a use other than storage, such as a battery or capacitor; or

~~D.~~ (4) the container is very small, such as an ampule.

B. The presence or absence of free liquids in containerized or bulk waste must be demonstrated using the Paint Filter Liquids Test, Method 9095 as described in Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, publication number SW 846.

Subp. 8. and 9. [Unchanged.]

REPEALER. Minnesota Rules, part 7045.0534, subparts 4 and 5 are repealed.

APPROVED IN THE REVISOR OF STATUTES OFFICE BY:

STATE OF MINNESOTA
MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of the Proposed
Adoption of Rules of
the State of Minnesota
Governing the Management,
Treatment, and Storage
of Hazardous Waste

NOTICE OF INTENT TO
ADOPT A RULE WITHOUT
A PUBLIC HEARING

Notice is hereby given that the State of Minnesota intends to adopt the above-entitled rules without a public hearing following the procedures set forth in the Administrative Procedure Act for adopting rules without a public hearing in Minn. Stat. §§ 14.22 to 14.28. The statutory authority to adopt the rules is Minn. Stat. § 116.07, subd. 4 (1984).[1]

All persons have 30 days in which to submit comment in support of or in opposition to the proposed rules or any part or subpart of the rules. Interested persons have until 4:30 p.m. on December 23, 1986 to submit comments on the proposed rules. Comment is encouraged.[2] Each comment should identify the portion of the proposed rules addressed, the reason for the comment, and any change proposed.[3]

Any person may make a written request for a public hearing on the rules within the 30-day comment period. If 25 or more persons submit a written request for a public hearing within the 30-day comment period, a public hearing will be held unless a sufficient number withdraw their request in writing.[4] Any person requesting a public hearing should state his or her name and address and is encouraged to identify the portion of the proposed rules addressed, the reason for the request, and any change proposed.[5] If a public hearing is required, the Minnesota Pollution Control Agency (MPCA) will proceed pursuant to

Minn. Stat. §§ 14.131 to 14.20.

Comments or written requests for a public hearing must be submitted to:

Carol Nankivel
Minnesota Pollution Control Agency
Solid and Hazardous Waste Division
520 Lafayette Road
St. Paul, Minnesota 55155

The proposed rules may be modified if the modifications are supported by data and views submitted to the MPCA and do not result in a substantial change in the proposed rules as noticed.

The rules proposed for adoption relate to the following matters.

1. The incorporation of additions and clarifications to the lists of hazardous wastes that have been previously incorporated into the federal hazardous waste regulations.

2. The incorporation of certain portions of the July 15, 1985 federal regulations codifying provisions from the Hazardous and Solid Waste Amendments of 1984.

3. The incorporation of federal requirements for the use of the Paint Filter Liquids Test in determining the presence of free liquids.

4. The clarification of a reference to the Standard Industrial Classification Code.

5. Corrections to the form number for the hazardous waste manifest form.

6. Changes to the address and emergency telephone number of the MPCA.

One free copy of the rules is available on request from the MPCA. Contact Carol Nankivel at 612/296-7260 or at the address listed above.

A Statement of Need and Reasonableness that describes the need for and reasonableness of each provision of the proposed rules and identifies the data and information relied upon to support the proposed rules has been prepared and is also available from Carol Nankivel upon request at 612/296-7260 or at the address listed above.

You are hereby advised pursuant to Minn. Stat. § 14.115 (supp. 1985), "Small business considerations in rulemaking," that the proposed amendments will have a minimal impact on small businesses. Since most of the amendments are already required under the federal hazardous waste program, the MPCA is merely adopting as State rules the regulations already in effect on the federal level. The amendments which are not based on federal requirements only address the MPCA's change of address and the identification of the hazardous waste manifest form. These are informational changes which will not result in the imposition of additional restrictions on small businesses.

If no hearing is required, upon adoption of the rules, the rules and the required supporting documents will be submitted to the Attorney General for review as to legality and form to the extent the form relates to legality. Any person may request notification of the date of submission to the Attorney General. Persons who wish to be advised of the submission of this material to the Attorney General, or who wish to receive a copy of the adopted rules, must submit the written request to Carol Nankivel at the address listed above.

Date: 11-10-86

for Thomas J. Kalitowski
Executive Director

STATE OF MINNESOTA
MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of the Proposed
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Treatment, and Storage
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Comments or written requests for a public hearing must be submitted to:

Carol Nankivel
Minnesota Pollution Control Agency
Solid and Hazardous Waste Division
520 Lafayette Road
St. Paul, Minnesota 55155

The proposed rules may be modified if the modifications are supported by data and views submitted to the MPCA and do not result in a substantial change in the proposed rules as noticed.

The proposed rules follow this notice. One free copy of the proposed rules is available from the MPCA. Contact Carol Nankivel at 612/296-7260 or at the address listed above.

A Statement of Need and Reasonableness that describes the need for and reasonableness of each provision of the proposed rules and identifies the data and information relied upon to support the proposed rules has been prepared and is available from Carol Nankivel upon request at 612/296-7260 or at the address listed above.

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Date: 11-10-86

Thomas J. Kalitowski
Executive Director

STATE OF MINNESOTA
MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of the Proposed Amendments of Rules Governing the Management, Storage, Treatment, and Disposal of Hazardous Waste, Minn. Rules Pts. 7045.0020, 7045.0075, 7045,0080 7045.0102, 7045.0120, 7045.0125, 7045.0135, 7045.0139, 7045.0141 7045.0214, 7045.0261, 7045.0275, 7045.0296, 7045.0302, 7045.0395, 7045.0458, 7045.0460, 7045.0468, 7045.0476, 7045.0478, 7045.0482, 7045.0484, 7045.0485, 7045.0534, 7045.0538, 7045.0552, 7045.0556, 7045.0564, 7045.0584, 7045.0588, 7045.0638, 7001.0150, 7001.0520, 7001.0590, 7001.0600, 7001.0620, 7001.0650, 7001.0712 and 7001.0720

STATEMENT OF NEED AND REASONABLENESS

I. INTRODUCTION

The subject of this proceeding is the amendment of the rules of the Minnesota Pollution Control Agency (hereinafter "Agency") governing the management, treatment, storage, and disposal of hazardous waste. The amendments will incorporate provisions promulgated by the U.S. Environmental Protection Agency (hereinafter "EPA") under the Resource Conservation and Recovery Act (hereinafter "RCRA") and provisions of the Hazardous and Solid Waste Amendments of 1984 (hereinafter "HSWA"), Public Law 98-616 (Exhibit 1), and also changes necessary to maintain current information and consistent rule language. The EPA published regulations codifying HSWA in the July 15, 1985 Federal Register (50 FR 28702-28755) (Exhibit 2), which incorporate the early enactment provisions of HSWA into Title 40 of the Code of Federal Regulations (40 CFR). The July 15, 1985 regulations are hereinafter referred to as the codification regulations. The proposed amendments to Minnesota's hazardous waste rules

incorporate most of the federal regulations resulting from the July 15, 1985 publication.

The EPA published additional amendments to its hazardous waste regulations regarding the lists of hazardous wastes. These additions to the lists were promulgated under HSWA and were published on October 23, 1985 (Exhibit 3), February 13, 1986 (Exhibit 4), and February 25, 1986 (Exhibit 5). On May 28, 1986 the EPA also published a clarification to a previous hazardous waste listing under authority of RCRA (Exhibit 6) and a clarification to the codification regulations was published August 8, 1986 (Exhibit 8). The proposed amendments incorporate these federal listings.

The Agency is also amending the rules to provide specific time limits for MPCA's response to requests for information, to delete specific citations to the form number of the Minnesota hazardous waste manifest, and to change the address and telephone number of the Agency where it occurs in the rules.

Amendments to incorporate the requirements for the Paint Filter Liquids Test as established under HSWA in the April 30, 1985 Federal Register (Exhibit 7), are also included with this rulemaking.

These rules are proposed for amendment pursuant to the Agency's authority under Minn. Stat. § 116.07, subd. 4 (supp. 1985).

This Statement of Need and Reasonableness is divided into several parts. Part II contains the Agency's explanation of the need for the proposed amendments. Part III contains an explanation of the reasonableness of the proposed amendments. Pursuant to the requirements of Minn. Stat. § 14.115 (supp. 1985), Part IV documents how the Agency has considered the methods of

reducing the impact of the proposed amendments on small businesses. Part V contains a list of the exhibits relied on by the Agency to support the proposed amendments. The exhibits are available for review at the Agency's offices at 520 Lafayette Road, St. Paul, Minnesota 55155.

II. NEED FOR THE PROPOSED AMENDMENTS TO THE HAZARDOUS WASTE RULES

Minn. Stat. ch. 14 (1984) requires an agency to make an affirmative presentation of facts establishing the need for and reasonableness of the rules or amendments proposed. In general terms this means that an agency must set forth the reasons for its proposal, and the reasons must not be arbitrary or capricious. However, to the extent that need and reasonableness are separate, need has come to mean that a problem exists which requires administrative attention and reasonableness means that the solution proposed by an agency is appropriate.

Need is a broad test that does not easily lend itself to evaluation of each proposed revision. In the broad sense, the need for amendments to the Agency's rules governing the management, treatment, storage, and disposal of hazardous waste has three bases: the need for consistency with the federal hazardous waste regulations; the need for rules which provide an acceptable level of protection for human health and the environment without unduly restricting normal commerce; and the need to maintain current information and consistent rule format in the hazardous waste rules.

A. Need for Consistency with Federal Regulations.

In 1976, Congress adopted RCRA to regulate the management of hazardous

waste. 42 U.S.C. §§ 6901 et seq. In adopting RCRA, Congress provided for eventual state control of the hazardous waste program and set up the mechanism for the EPA to grant authority to states to operate the program. In states that receive authorization, the state environmental agency administers the state program in lieu of the federal program. To receive and maintain authorization, the state program must be "equivalent" to the federal program and consistent with federal or state programs applicable in other states. EPA has defined equivalent to mean that the state requirements are at least as stringent as federal requirements. In terms of consistency, EPA's goal is to achieve an integrated national program which requires that final state programs do not conflict with each other or with the federal program.

Minnesota received final authorization for its hazardous waste program pursuant to the 1976 and 1980 RCRA amendments from EPA effective February 11, 1985. See 50 FR 3756 (January 28, 1985). A state with final authorization administers its hazardous waste program in lieu of the EPA program for those regulations which were promulgated pursuant to RCRA as adopted in 1976 and as amended in 1980.

However, the authorization did not extend to those requirements promulgated pursuant to HSWA. A state must obtain authorization specifically under HSWA. Before the Agency can apply for authorization under HSWA, any rule amendments intended to maintain equivalency to the federal program must be in effect in Minnesota. The existing federal regulations establish specific time frames for the adoption of state rules intended to maintain equivalency to the federal rules.

In order for a state to obtain authorization under HSWA it must incorporate the technical aspects of the hazardous waste program and must also be able to demonstrate that its hazardous waste program is consistent with the federal program in regard to the federal Freedom of Information Act requirements. (Exhibit 9.) In interpreting the Freedom of Information Act requirements EPA has determined that the specific response times provided in the Freedom of Information Act must be incorporated into State statutes or rules before authorization can be granted. There is therefore a need to amend the rules to include the same response time limits to ensure that the authorization process can be implemented for the technical aspects of the program.

Although a state program may be more stringent than the federal requirements and states are not required to adopt less stringent federal standards, the Agency believes it is important to maintain as much consistency as possible between Minnesota's rules and the federal program. Much of the hazardous waste generated in Minnesota must be sent to other states for treatment or disposal because Minnesota has no commercial disposal facilities and only very limited commercial treatment facilities. This means that many generators must be knowledgeable about requirements of both the State and federal hazardous waste programs.

The need to comply with multiple sets of rules makes compliance difficult. Therefore, to the extent it can be accomplished without posing a threat to human health and the environment, amendment of Minnesota's hazardous waste rules to incorporate EPA's amendments is desirable.

B. Need for Managing Hazardous Waste Consistent with the Protection of Human Health and the Environment.

The proposed amendments to the Minnesota hazardous waste rules include provisions protective of human health and the environment which provide additional protection by expanding the lists of hazardous wastes, by requiring in the permit application an assessment of the potential risks to the public from exposure to hazardous constituents or hazardous wastes as a result of releases from a hazardous waste facility. In addition, provisions are included for corrective actions for prior releases from hazardous and solid waste management units, which require a facility owner or operator to address what action would be taken should it be discovered that the activity of the previous owner or operator of the site caused a release of hazardous wastes or hazardous constituents.

C. Need to Maintain Current Information and Consistent Format in the Hazardous Waste Rules.

The hazardous waste rules and materials used to support the hazardous waste program in Minnesota are subject to change as the federal program and existing conditions change. The manifest document which must accompany the transport of hazardous waste is subject to changes and when changed, is assigned a new form number. The address of the MPCA is also subject to change. There is a need to amend the rules where these two items are referenced in order to reflect the current address of the Agency and to eliminate the need for future amendments to change the form number of the manifest form.

The Office of the Revisor of Statutes reviews rule amendments for form and

consistency. In order to comply with the standards of the revisor, there is a need to correct an existing provision of the rules to correspond to the way similar provisions are being phrased at this time.

III. REASONABLENESS OF THE PROPOSED AMENDMENTS TO THE HAZARDOUS WASTE RULES

The Agency is required by Minn. Stat. ch. 14 (supp. 1985) to make an affirmative presentation of facts establishing the reasonableness of the proposed rules or amendments. Reasonableness is the opposite of arbitrariness and capriciousness. It means that there is a rational basis for the Agency's action. The reasonableness of each of the proposed amendments is discussed below.

A. Minn. Rules Pt. 7045.0020 (Definitions).

The Agency is amending Minn. Rules pt. 7045.0020 to add two definitions which are important to the proposed amendments. These definitions add terms which are used in the federal codification regulations (Exhibit 2). It is reasonable to define these terms in the rules in order to maintain consistency with the federal program. Because both terms are used elsewhere in the amendments, it is reasonable to define them so that the regulated community can understand the requirements of the amendments. The terms are "marketer" in Minn. Rules pt. 7045.0020, subp. 55a and "waste oil" in Minn. Rules pt. 7045.0020, subp. 102a.

Marketer is equivalent to the federal definition in 40 CFR § 266.43a. It is reasonable to define the term to make it clear what the term means with respect to hazardous waste fuels and used oil fuels.

Waste oil is the definition used in the preamble to the codification rule (50 FR 28718, Exhibit 2). Although EPA does not specifically define the term in the federal regulations, it is reasonable to define the term so that the regulated community can understand the requirements of the amendments. It is important to define the term to distinguish waste oil from used oil, which is significant to the regulations promulgated pursuant to HSWA.

B. Minn. Rules Pt. 7045.0075 (Petitions).

Minn. Rules pt. 7045.0075, subp. 2 sets forth the procedure for petitioning the Agency to exclude a waste produced at a particular facility from the lists of hazardous waste. The petitioning procedure is amended to provide that the waste be evaluated for factors or constituents other than those which may have resulted in the listing of the waste as hazardous in the first place. Although the existing State rules allowed consideration of other factors, the amendment is reasonable to maintain consistency with the federal delisting procedure. The amended federal procedure ensures that if a waste is delisted, it is not hazardous for another reason. Requiring such an additional evaluation is reasonable to protect human health and the environment and require continued proper management of the waste. This petition is equivalent to 40 CFR § 260.22.

C. Minn. Rules Pt. 7045.0080 (Data Availability).

Minn. Rules pt. 7045.0080 is added to the hazardous waste rules in order to provide the public with specific assurance that requests for information will be addressed to the same extent and within the same time limits as addressed under the federal program. The provisions in this part are based on equivalent provisions in 40 CFR Part 2.112 (Exhibit 10), a federal regulation implementing

the Freedom of Information Act. In order to receive authorization for HSWA the MPCA is required to respond to requests for information within the same time period as EPA would respond if EPA were implementing the HSWA requirements in Minnesota.

Minn. Rules pt. 7045.0080 requires the director to provide a written response to requests for information within ten working days of receiving the request. This response must provide a determination of the information that will be released and if information will not be released, the reason for the denial. The director may take an additional ten days to respond to a request if there are reasons why the determination of the availability of the requested information cannot be made within the original ten-day period. The conditions for instituting this extension period are specified in the rule. Additional time may be provided if the request for information is not clear and the director must clarify the nature of the request.

Subp. 4 of the amendments provides the public with the right to take action against the MPCA in the event that the ten-day response time has run and the MPCA has not responded to the request. The ability to institute action is consistent with the corresponding federal Freedom of Information Act requirements and also is provided in Minn. Stat. § 13.08.

D. Minn. Rules Pt. 7045.0102 (Mixtures of Hazardous and Nonhazardous Wastes).

Minn. Rules pt. 7045.0102 sets forth the requirements for mixtures of hazardous and nonhazardous wastes. The proposed amendment to Minn. Rules pt. 7045.0102 provides that different requirements apply to mixtures of

hazardous waste which are burned for energy recovery and to mixtures of hazardous wastes used in a manner constituting disposal than apply to hazardous wastes managed in other ways. It is reasonable to amend this part so that it is clearly stated to the regulated community that there are other requirements in the rules for mixtures burned for energy recovery or used in a manner constituting disposal.

E. Minn. Rules Pt. 7045.0120 (Exempt Wastes).

The Agency is amending Minn. Rules pt. 7045.0120, item A to clarify the exemption for household waste and to add specific provisions for the exemption of resource recovery facilities managing municipal solid waste. The rules previously provided an exemption for normal refuse from households. However, the federal HSWA amendments (40 CFR § 261.4 (b)(10)) replaced this exemption with the more comprehensive household waste exemption now being added to the State rules. The amendment includes additional provisions regarding resource recovery facilities. The federal regulations simply exempt resource recovery facilities if they only burn household wastes and wastes from commercial and industrial sources that do not contain hazardous wastes. If the resource recovery facility does not accept hazardous wastes and inspections are conducted to ensure that it is not received or burned, the facility is not regulated under the federal hazardous waste regulations. However, the Agency believes that additional restrictions are appropriate for resource recovery facilities to address hazardous wastes which are inadvertently received by the facility. It is acknowledged that some hazardous wastes may be illegally disposed in the waste stream going to the resource recovery facility. Some provision must be

made for the management of such illegally disposed wastes when they are isolated from the nonhazardous waste stream at the resource recovery facility. The rule amendments first require that the owner or operator of the resource recovery facility make a reasonable effort to determine the source of hazardous waste. This is reasonable in order to prevent future illegal disposal by bringing generators into the hazardous waste program and monitoring their waste management activities. Also, it is in the resource recovery facility's best interest to return hazardous waste to the rightful owner to avoid the expense of properly managing and disposing of the waste.

However, if the source of the illegally disposed hazardous waste cannot be determined, the owner or operator of the resource recovery facility must meet certain management requirements applicable to generators of hazardous waste. The Agency believes that, in this case, it is not reasonable to apply all of the generator requirements, such as waste evaluation as prescribed in Minn. Rules pt. 7045.0214 and disclosures as required by Minn. Rules pt. 7045.0230 to the inadvertent recipient of hazardous waste. However, in order to ensure that the waste is properly managed it is reasonable to impose certain conditions regarding identification numbers, manifest use and proper management prior to disposal. The management requirements being applied are the pretransport requirements addressing marking, labeling and placarding, proper management regarding relinquishing control and spill management, accumulation of waste, record keeping and annual reporting of the wastes received.

It is not reasonable to require the owner or operator of a resource recovery facility to comply with the 90 day accumulation limit that is applied

to full scale generators. Because hazardous wastes will only be sporadically received at the resource recovery facility and there is no way to know what type of waste will be received, it is unreasonable to expect the facility to have an ongoing procedure for disposal of these wastes. The amendments only require that the wastes received be disposed of within one year of receipt. This is a reasonable time span to allow the owner or operator of the facility to accumulate a shipment and make arrangements for its disposal.

The amendments also specify that the resource recovery facility must have a solid waste permit. The question of the type of facility requirements that should be applied was discussed during meetings with the regulated community and county hazardous waste staff. It was determined that facility requirements could not reasonably be specified in the rule, given the uncertainty of the waste stream received. Therefore, the amendments do not include requirements for personnel training, contingency planning or specific facility provisions. These considerations will be more appropriately addressed in the facility permit. It is reasonable to require that the resource recovery facility have a solid waste permit to incorporate the necessary facility requirements.

The Agency is also requiring that the ash from resource recovery facilities be evaluated to determine if it is hazardous. Minn. Rules pt. 7045.0214 provides that any waste, including ash, generated from the treatment of hazardous waste is also a hazardous waste. Because the amendments exempt the waste received at resource recovery facilities from consideration as hazardous waste, the ash is therefore not addressed under Minn. Rules pt. 7045.0214, subp. 3. However, the concern existed that the facility may generate an ash

which is hazardous due to a characteristic, such as EP toxicity, even though hazardous waste was not burned at the facility. It is reasonable for the amendments to specify that the ash must still be evaluated to determine if it is hazardous. This evaluation must also be done in accordance with the conditions of the solid waste permit. Due to the variability of the waste burned, the ash may also vary in composition and character. Any requirements needed to address this variability relative to ash evaluation would be most appropriately addressed in the solid waste permit.

F. Minn. Rules Pt. 7045.0125 (Management of Waste by Use, Reuse, Recycling and Reclamation).

Minn. Rules pt. 7045.0125 is amended to be consistent with the requirements of 40 CFR § 266.31 (b) and 40 CFR § 266.34 (d).

Minn. Rules pt. 7045.0125, subp. 10, item C, subitem (1) is added to provide that a cement kiln which burns hazardous waste would be subject to the thermal treatment facility standards. This is more stringent than the federal requirement of 40 CFR § 266.31 which requires the imposition of the thermal treatment standards only within municipalities with populations greater than 500,000. (Thermal treatment is the treatment of hazardous waste using elevated temperatures.) Although Minnesota does not have any municipalities with a population greater than 500,000 nor does it have a cement plant, the provision for cement kilns must be included to maintain consistency with the federal requirements. It is reasonable to apply the thermal treatment standards without regard to population size in order to protect public health and the environment throughout the State. Such a provision will ensure that if a cement kiln is

developed in the State, the same standards will apply regardless of location.

Minn. Rules pt. 7045.0125, subp. 10, item C, subitem (2) is added to provide that petroleum wastes which are converted into petroleum coke can be burned in a cement kiln, unless the petroleum coke exhibits a characteristic of hazardous waste. The petroleum coke would be regulated as hazardous since it is produced from a hazardous waste. However, since the coke is used as a fuel and generally does not exhibit a characteristic of hazardous waste, it is reasonable to include this exception. Based on this exemption, cement kilns would be eligible to burn such petroleum coke, as are other types of facilities such as utilities. This provision is equivalent to the exception in 40 CFR § 266.31 (b)(2).

Minn. Rules pt. 7045.0125, subp. 10, item D is added to require labeling of fuel containing hazardous waste. The rule requires that any person who distributes, produces, or markets a fuel containing hazardous waste, or a hazardous waste burned directly as a fuel must include a warning label in the invoice or bill of sale for the fuel. The warning applies to fuel containing any hazardous waste. It is reasonable to provide the requirements so that all persons who manage or regulate the fuel understand that it is a hazardous waste or contains a hazardous waste and must be handled accordingly since it is a substance potentially more dangerous than a virgin fuel. Omitting this requirement would be less stringent than the federal regulations. This rule is equivalent to 40 CFR § 266.34 (d)(1).

Minn. Rules pt. 7045.0125, subp. 11 is added to provide certain exceptions from the labeling requirements for fuels produced from hazardous wastes

indigenous to the refining operations. It is reasonable to provide this exception since reinsertion of certain oily hazardous wastes into the refining process is a common practice. Because fuels produced from the refining practice would contain hazardous waste, labeling would be required under Minn. Rules pt. 7045.0125, subp. 10, item D for all fuels produced from the refining process. Since the exceptions are limited in nature and require that certain provisions be met, such as removal of contaminants, fuels which meet these requirements do not pose the same potential for adverse effects as other fuels which contain hazardous waste. Also, item C requires that the fuel not exhibit any hazardous waste characteristics. It is reasonable to provide the exceptions so that all fuels would not have to be labeled as hazardous waste fuels. The exceptions are the same as those in 40 CFR 266.34 (d)(2), (3) and (4).

G. Minn. Rules Pt. 7045.0135 (Lists of Hazardous Wastes).

Minn. Rules pt. 7045.0135 is entitled "Lists of Hazardous Wastes." The Agency is amending subps. 2, 3 and 4 of this rule. The amendments to these three subparts are discussed below.

Subp. 2 lists hazardous waste from non-specific sources. The amendment to subp. 2 adds four spent solvents and their recovery still bottoms to two of the waste numbers listed in this subpart. The addition of these solvents is taken verbatim from recent amendments to the federal hazardous waste regulations. The amendment would add 1,1,2-trichloroethane to hazardous waste number F002, spent halogenated solvents. Hazardous waste number F005, spent nonhalogenated solvents, would be expanded by the addition of benzene, 2-ethoxyethanol, and 2-nitropropane. The hazardous constituents in these wastes are the solvents

themselves, which have been shown to exhibit a variety of chronic toxic effects. In addition, benzene has been determined to cause leukemia in humans. A complete discussion of the reasonableness of these four additions to hazardous wastes from non-specific sources is provided at pages 6537 to 6542 of Exhibit 5.

Subp. 3 lists hazardous waste from specific sources. The amendment to subp. 3 adds nine groups of hazardous wastes from non-specific sources to the previously listed wastes and clarifies the scope of one previously listed waste. This clarification and the added wastes are taken verbatim from federal amendments to federal hazardous waste regulations.

Six of these wastes, hazardous waste numbers K111, K112, K113, K114, K115, and K116, are generated during the production of dinitrotoluene (DNT), toluenediamine (TDA), and toluenediisocyanate (TDI). These wastes are listed due to toxicity. Hazardous waste number K111 is also listed because of its corrosivity. A discussion of the reasonableness of these six additions is provided at pages 42936 to 42943 of Exhibit 3. Three of these wastes, hazardous waste numbers K117, K118, and K136, are generated during the production of ethylene dibromide (EDB). These wastes are listed because of their toxicity. A discussion of the reasonableness of these three additions is provided at pages 5327 to 5330 of Exhibit 4.

The clarification to the listing of spent pickle liquor by steel finishing operations, hazardous waste number K062, is taken verbatim from a recent amendment to the federal regulations which narrowed the scope of this listing (see Exhibits 6 and 11).

The clarification specifies that the listing applies only to spent pickle

liquor generated by steel finishing operations from the iron and steel industry. Lead and chromium, the constituents for which the waste was originally listed, are present in spent pickle liquor from iron and steel production in concentrations exceeding the maximum permissible leachate concentrations.

The listing of hazardous waste number K062 was amended in response to petitions filed with EPA. Data submitted in support of these petitions demonstrated that spent pickle liquor generated by steel finishing operations from hot dip galvanizing and porcelain enameling companies did not contain concentrations of lead, chromium, and other Extraction Procedure (hereinafter "EP") Toxic metals above permissible leachate concentrations. A complete discussion of the reasonableness of this amendment is provided at pages 19320 to 19322 of Exhibit 6.

Subp. 4 lists items which are hazardous wastes when they are discarded or intended to be discarded. The amendments to subp. 4 add several compounds to the list of toxic wastes in item F. These amendments are taken verbatim from the recently amended federal regulations and are discussed in Exhibits 3 and 5. The addition of hazardous waste numbers U328, U353, U359 is in conjunction with the listing of four solvents in subp. 2; the addition of U328, and U353 is in conjunction with the listing of toluene wastes in subp. 3.

In addition, the primary hazardous properties of hazardous waste numbers U171 and U149 are amended to include toxicity as well as ignitability.

Minn. Rules pt. 7045.0135, subp. 4 is also amended to provide that the wastes listed in that part are hazardous wastes if they are mixed with used oil or waste oil and used for dust suppression or road treatment, or if they are

blended for use as a fuel. It is reasonable to make it clear that the mixing of listed wastes into used oil or waste oil makes them subject to full regulation as hazardous waste. Omission of this provision would be less stringent than the federal regulations. This is equivalent to 40 CFR § 261.33.

H. Minn. Rules Pt. 7045.0139 (Basis for Listing Hazardous Wastes).

The amendments to Minn. Rules pt. 7045.0139 expand the list specifying the constituents which caused a waste to be listed as hazardous. It is reasonable to amend this list to address the additions to the wastes from non-specific soures in the amendment to Minn. Rules pt. 7045.0135, subp. 2, and the nine wastes from specific sources added by the amendments to Minn. Rules pt. 7045.0135, subp. 3. This list is necessary so that generators will know the constituent which caused their waste to be listed and will therefore be able to determine if the wastes produced at their facilities may qualify for an exemption pursuant to Minn. Rules pt. 7045.0075, subp. 2. These amendments are taken verbatim from the recently amended federal regulations and are discussed in Exhibits 3, 4, and 5. It is reasonable to amend this rule in order to maintain consistency with federal regulations.

I. Minn. Rules Pt. 7045.0141 (Hazardous Constituents).

The amendments to Minn. Rules pt. 7045.0141 add additional constituents to the list of hazardous constituents in response to the wastes being listed in the amendments to Minn. Rules pt. 7045.0135, subps. 2 and 3. It is reasonable to amend this list to include constituents not previously listed in order to provide for acceptable ground water monitoring at the facilities where these wastes are managed and the consideration of these constituents in the review of

delisting petitions. This list is implemented in the development of a ground water monitoring program and must accurately reflect the constituents which may be present. Minn. Rules pt. 7045.0075 requires that the MPCA consider all hazardous constituents when reviewing a petition to delist a hazardous waste. It is reasonable to amend this rule in order to maintain consistency with the federal regulations.

J. Minn. Rules Pt. 7045.0214 (Evaluation of Wastes).

Minn. Rules pt. 7045.0214, subp. 3 describes wastes generated by the treatment, storage, or disposal of hazardous waste. Item B provides for an exemption for lime stabilized pickle liquor sludge from iron and steel facilities with Standard Industrial Classification Codes 331 or 332. The amendment to item B adds a reference to the Office of Management and Budget Standard Industrial Classification Manual, from which the Standard Industrial Classification Codes specified in this rule were obtained. It is reasonable to provide a reference to identify the source of these classification codes.

K. Minn. Rules Pt. 7045.0261 (Manifest Document; General Requirements).

Hazardous waste being transported to a treatment, storage or disposal facility must be accompanied by a hazardous waste manifest. Minn. Rules pt. 7045.0261 requires the use of the Minnesota manifest form for all waste transport to or from Minnesota, except for waste being transported to states which require a specific State manifest form. The required Minnesota manifest form is identified at several places in the hazardous waste rules by its designated form number. In Minnesota, the Department of Administration assigns form numbers for official State documents and forms. When those documents are

revised or altered, the form number is also changed.

Several changes to the Minnesota manifest are necessary in order to accommodate federal changes to the manifest form and to change the address of the Agency's offices and the 24-hour emergency telephone number. As a result of these changes, the Department of Administration has determined that the form number of the Minnesota manifest must also be changed, from PQ-00371-01 (10/84) to PQ-00371-02 (10/86). The hazardous waste rules refer to the Minnesota manifest form by the original form number. It is very likely that the manifest form and thus the form number will periodically change in the future. It is reasonable to delete all references to the form number to avoid the necessity of frequent amendments to the rules to maintain current information on the form. There is no need to include the manifest form number in the rules because it is adequately identified by the name of the form. There is only one Minnesota manifest form and the most current edition is the form the rules require for hazardous waste transport.

The Agency's address and 24-hour emergency telephone number are two of the changes being made to the manifest form. The Agency's address and telephone number are also specified in the rules. It is reasonable to amend the rules to delete the former address and telephone number and add the Agency's new address and telephone number so that the information provided in the rules is current and accurate.

L. Minn. Rules Pt. 7045.0275 (Proper Hazardous Waste Management).

Minn. Rules pt. 7045.0275 is amended to correct the telephone number for the MPCA's 24-hour notification requirement. This amendment is reasonable for

the reasons presented in section K.

M. Minn. Rules Pt. 7045.0296 (Annual Reporting).

Minn. Rules pt. 7045.0296, subp. 2 is amended to include the requirements of 40 CFR § 262.41. The amendments set forth additional requirements for hazardous waste generators regarding waste minimization and reduction of the toxicity of the hazardous waste generated. The generator must have a waste minimization program in place and must provide information on the annual report describing efforts to reduce the volume and toxicity of the waste generated during the previous years. Also required is a comparison of the toxicity and volume of the waste generated during the reporting year with that generated during the previous years, to the extent that such information is available. The annual report must also include a certification by the generator that the information provided is accurate. It is reasonable to include these provisions so that the regulated community understands the requirements regarding waste minimization for the annual report. Omission of these requirements would be less stringent than the federal regulations.

N. Minn. Rules Pt. 7045.0302 (International Shipments; Special Conditions).

Minn. Rules pt. 7045.0302 is amended to require an annual report by March 1 of each year for all hazardous waste exported during the previous year. The annual report must be submitted to the EPA in Washington and must describe the types, quantities, frequency, and ultimate destination of the exported hazardous waste. It is reasonable to include this provision so that the regulated community understands the additional requirement for exporting

hazardous waste. Omission of this provision would be less stringent than 40 CFR § 262.50.

This rule is also being amended to delete all references to the manifest form number and change the MPCA's address. These amendments are reasonable for the reasons presented in section K.

O. Minn. Rules Pt. 7045.0395 (Hazardous Waste Discharges).

Minn. Rules pt. 7045.0395 is amended to correct the telephone number for the MPCA's 24-hour notification requirement. This amendment is reasonable for the reasons presented in section K.

P. Minn. Rules Pt. 7045.0458 (Waste Analysis Requirements).

Minn. Rules pt. 7045.0458 is amended by the addition of a reference to Minn. Rules pt. 7045.0538, subp. 10. This provision addresses the use of the Paint Filter Liquids Test and is reasonable for the reasons presented in section Y.

Q. Minn. Rules Pt. 7045.0460 (Location Standards).

Minn. Rules pt. 7045.0460 is amended to prohibit the placement of any non-containerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine or cave. It is reasonable to include this requirement to make it clear to the regulated community that there are prohibitions on where hazardous waste can be placed. Omission of this prohibition would be less stringent than 40 CFR § 264.18.

R. Minn. Rules Pt. 7045.0468 (Emergency Procedures).

Minn. Rules Pt. 7045.0468 is amended to correct the telephone number for the MPCA's 24-hour notification requirement. This amendment is reasonable for the reasons presented in section K.

S. Minn. Rules Pt. 7045.0476 Manifest Discrepancies.

Minn. Rules pt. 7045.0476 is amended to delete a reference to the manifest form number. This amendment is reasonable for the reasons presented in section K.

T. Minn. Rules Pt. 7045.0478 (Operating Record).

Minn. Rules pt. 7045.0478 is amended to set forth a new requirement to be included in the operating record of a hazardous waste facility. A hazardous waste facility permittee must certify that he has a program in place to reduce the volume and toxicity of the waste generated, and that the method of treatment, storage, or disposal is the "practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment." It is reasonable to include the requirement so that the regulated community understands that hazardous waste facilities are also subject to waste minimization requirements for the hazardous wastes generated at the facility. This requirement is equivalent to 40 CFR § 264.73.

This rule is also amended to include a reference to the results of analyses conducted to determine if free liquids are present in the waste. The reference is to the Paint Filter Liquids Test and is reasonable for the reasons discussed in section Y.

U. Minn. Rules Pt. 7045.0484 (Required Reports).

The MPCA is amending Minn. Rules pt. 7045.0482 to incorporate EPA requirements published as technical corrections to the federal codification regulations (Exhibit 8).

The waste minimization requirements established in the federal codification regulations are at this time being incorporated into Minn. Rules pt. 7045.0296.

The original provision requires a waste minimization certification in annual reports from all generators who ship waste off-site. The technical correction clarifies that the waste minimization requirements also apply to generators who treat, store and dispose of hazardous waste at on-site facilities as well as to generators who ship to off-site facilities. Generators who manage waste on-site are governed by the generator standards and also by the facility requirements. It is appropriate to add the technical correction regarding the waste minimization requirements that apply to on-site waste management to the section of the rules that applies to facilities. This corresponds to the way the federal regulations were amended to include this correction. As a HSWA amendment, compliance with this provision has been in effect in Minnesota since August 8, 1986.

V. Minn. Rules Pt. 7045.0484 (Ground Water Protection).

The Agency is amending Minn. Rules pt. 7045.0484 to incorporate additional requirements promulgated by EPA (40 CFR § 264.90), rephrase the requirements that remain, and to delete requirements that are no longer relevant. The rules formerly specified that the ground water protection requirements applied to facilities that received hazardous waste after the effective date of the State rules (July 16, 1984). Closed facilities that received hazardous waste before the effective date of the State rules but after the effective date of the federal ground water requirements were regulated only by the federal rules. It is reasonable to delete these requirements as they are now superseded by the new requirements added to the federal regulations in response to the HSWA amendments.

The requirements being added are taken from the federal rules addressing releases from hazardous and solid waste management facilities. The amendments to the State rules have moved the effective date for coverage of surface impoundments, waste piles, land treatment units and landfills from those facilities which received waste after January 26, 1983 to those facilities receiving waste after July 26, 1982 and changed the reference from the federal regulations to the State rules. It is reasonable to incorporate this date into the proposed amendments because, as a HSWA amendment, it is in effect in Minnesota regardless of the status of the State rules. The original State rules referred to federal authority because at that time the State was not authorized under RCRA by EPA. Now that the State is authorized under RCRA and intends to seek authorization under HSWA, it is reasonable to change accountability to the State rules so that the regulated community understands that the State intends to implement the provisions of this rule in lieu of EPA. Until the State is authorized under HSWA for this provision the federal regulations remain in effect in the State, however, the State rules and federal regulations will be the same regarding the effective date.

The second change in the ground water protection requirements clarifies the applicability of the newly added Minn. Rules pt. 7045.0485 addressing corrective action. Minn. Rules pt. 7045.0484, subp. 1, item A, subitem 1 specifies that facilities governed by the ground water protection requirements must also comply with the requirements of Minn. Rules pt. 7045.0485, regarding corrective action at any previously used hazardous or solid waste management facility. This is a reasonable addition to the rules to ensure that the regulated community is aware

that both sets of rules may be applicable and that compliance with Minn. Rules pt. 7045.0484 does not preclude the additional applicability of Minn. Rules pt. 7045.0485.

Minn. Rules pt. 7045.0484, subp. 1, item A, subitem 3 states that the financial responsibility requirements of Minn. Rules pt. 7045.0485 apply to regulated units. This is a reasonable provision because it clarifies that, in addition to the financial assurance required for future activities at a regulated unit, it may be necessary to conduct corrective action for previous activities and additional financial assurance will be required. These two clarifying references to the requirements of Minn. Rules pt. 7045.0485 correspond to similar requirements in 40 CFR § 264.90 (a)(2).

An amendment to Minn. Rules pt. 7045.0484, subp. 1, item B, subitem 2 is proposed to delete a reference to Minn. Rules pt. 7045.0534, subp. 5. This subpart referred to the requirements for inspection of waste pile liners to qualify for an exemption from the ground water monitoring requirements. As discussed in section X, this exemption is no longer granted by the rules, therefore it is reasonable to delete this obsolete cross-reference.

An amendment to Minn. Rules pt. 7045.0484, subp. 12, item E is also proposed to delete a reference to double-lined waste piles. Because of the proposed changes discussed in section X, these requirements are no longer applicable to double-lined waste piles, and it is therefore reasonable to delete this reference.

W. Minn. Rules Pt. 7045.0485 (Corrective Action for Solid Waste Management Units).

The Agency is adding a new rule, Minn. Rules pt. 7045.0485 to incorporate the federal requirements of 40 CFR § 264.101. This rule will establish the applicability and conditions of specific corrective action requirements at facilities seeking a hazardous waste permit. The owner or operator of such a facility will be required to correct any contamination that has resulted from releases from any solid or hazardous waste management activities, even if those activities occurred in the past. It is reasonable to add this provision to the State rules to cover those situations where previous contamination exists at a site being considered for a permit. It is not reasonable to grant a permit for a facility at a contaminated site without addressing corrective actions regarding the contamination.

The amendments specify that corrective actions must be established in the permit if they cannot be completed prior to issuance of the permit. This provides a reasonable assurance that corrective actions will take place and that money will be available as needed, without unreasonably restricting the use of the site by withholding the permit until corrective actions are complete. Corrective actions may occur over a considerable time span and it is reasonable to grant a permit if it includes the necessary provisions to ensure the completion of corrective action.

The amendments also include a statement that financial assurance must be provided under this rule in addition to the financial assurance currently required by the hazardous waste rules. This is a reasonable statement to

clarify the requirements of this part and ensure that money is available as needed.

X. Minn. Rules Pt. 7045.0534 (Waste Piles).

The Agency is amending Minn. Rules pt. 7045.0534, by deleting subps. 4 and 5. These subparts are being deleted to maintain consistency with the federal requirements. The federal rules formerly provided an exemption from the ground water monitoring requirements for waste piles which had a double liner system. The HSWA amendments to 40 CFR § 264.252 removed this exemption so that the specific liner requirements are no longer applicable and are therefore deleted.

The State rules did not provide the same total exemption for double-lined waste piles. Double-lined waste piles were only exempted from certain detection monitoring requirements of the State rules. It is reasonable to delete Minn. Rules pt. 7045.0534, subp. 4 to ensure that the requirements for waste piles do not provide exemptions that are not allowed by the federal regulations. The specific requirements for double-lined waste piles are no longer relevant without the exemption and are therefore reasonably deleted.

The federal regulations also provided an exemption from the ground water monitoring requirements for waste piles with liners that could be inspected. The HSWA amendments to 40 CFR § 264.253 removed this exemption so that waste piles with inspectable liners are now subject to all ground water monitoring requirements. Minn. Rules pt. 7045.0534, subp. 5 provided this same exemption. It is therefore reasonable to delete this subpart to maintain consistency with the federal regulations.

Y. Minn. Rules Pt. 7045.0538 (Landfills).

The Agency is amending Minn. Rules pt. 7045.0538, subp. 10 to address the management of liquids in permitted landfills. This amendment is made in response to HSWA amendments to 40 CFR § 264.314 which establish an effective date after which bulk or noncontainerized liquid hazardous waste cannot be disposed of in a landfill. The State rules have always prohibited the placement of bulk or noncontainerized wastes in landfills so that no amendments were necessary to address that aspect. However, the State rules did allow the use of absorbents to eliminate free liquids. The amended federal regulations prohibit the use of absorbents after May 8, 1985. Therefore, it is reasonable to delete the language allowing the use of absorbents and to incorporate the federal prohibition into the State rules so that the use of absorbents is not allowed as a liquid treatment prior to landfill disposal.

Although as a HSWA provision, the federal prohibition has applied in Minnesota since May 8, 1985, it is not possible to incorporate a past date into the rules to apply retroactively. However, facilities have been required to comply with the prohibition since the effective date of the federal requirements. It is reasonable to incorporate the effect of the federal prohibition into the State rules by prohibiting the placement of bulk or containerized waste when absorbents have been eliminated to remove free liquids.

Minn. Rules pt. 7045.0538, subp. 10 establishes special requirements for liquid waste disposed of in landfills. The Agency is amending Minn. Rules pt. 7045.0538, subp. 10 to incorporate amendments to the federal regulations which specify use of the Paint Filter Liquids Test to determine the presence or

absence of free liquids in bulk or containerized waste. 40 CFR § 264.314 was amended on April 30, 1985 (Exhibit 7) to require the use of the Paint Filter Liquids Test to determine presence or absence of free liquids in either a containerized or bulk waste.

Minn. Rules pt. 7045.0538, subp. 10 and pt. 7045.0638, subp. 7 prohibit the placement of liquid wastes or wastes containing free liquids in landfills. In light of this prohibition, it is reasonable to specify a method for determination of free liquids in waste. These amendments will make the State rules equivalent to the corresponding federal regulation.

Z. Minn. Rules Pt. 7045.0552 (Facilities Governed by Interim Status).

Minn. Rules pt. 7045.0552 is amended to set forth the applicability of the interim status requirements for hazardous waste facilities which are not regulated as facilities by federal regulation, but are regulated by State rule only. Minn. Rules pt. 7045.0552, subp. 1a states that a facility which was previously unregulated becomes subject to the interim status requirements on the effective date of any rules which make the facility subject to regulation. In addition, this subpart provides that such a facility must submit a Part B application for a hazardous waste facility permit within one year of the effective date of any rules which make the facility subject to the requirement to obtain a permit. This is a reasonable requirement so that the regulated community understands that there are certain facilities which are subject only to State permitting requirements. Although a facility not previously subject to permitting requirements is immediately subject to regulation on the effective date of any rules which bring it into regulation, it is reasonable to allow the

facility owner or operator one year from the effective date to submit a Part B application. The one year time frame is equivalent to that allowed for existing facilities which become subject to regulation in 40 CFR § 270.73.

AA. Minn. Rules Pt. 7045.0556 (General Facility Standards).

Minn. Rules pt. 7045.0556, subp. 7 is added to prohibit the placement of any hazardous waste in any salt dome, salt bed formation, underground mine or cave which has interim status. The result of this requirement is that hazardous waste cannot be placed in any of the four settings unless that location has a hazardous waste facility permit. Placement refers to all treatment, storage, and disposal activities. This is a reasonable prohibition since it provides the greatest protection for human health and the environment from wastes placed in a repository which may be porous or fractured and subject to leakage. Omission of this prohibition would be less stringent than 40 CFR § 265.18.

BB. Minn. Rules Pt. 7045.0564 (Waste Analysis Requirements).

Minn. Rules pt. 7045.0564 is amended by the addition of a reference to Minn. Rules pt. 7045.0638, subp. 7. This provision addresses the use of the Paint Filter Liquids Test and is reasonable for the reasons discussed in section Y.

CC. Minn. Rules Pt. 7045.0584 (Operating Record).

Minn. Rules pt. 7045.0584 is amended by the addition of a reference to Minn. Rules pt. 7045.0638, subp. 7. This provision addresses the use of the Paint Filter Liquids Test and is reasonable for the reasons discussed in section Y.

DD. Minn. Rules Pt. 7045.0588 (Required Reports).

Minn. Rules pt. 7045.0588 is amended by the addition of requirements to specify the efforts taken to reduce the volume and toxicity of waste generated

and to indicate the results of those efforts in the annual report. This provision is reasonable for the reasons discussed in section T.

EE. Minn. Rules Pt. 7045.0638 (Landfills).

The Agency is amending Minn. Rules pt. 7045.0638, subp. 7 to address the management of liquid waste in interim status landfills. This amendment is in response to HSWA amendments to 40 CFR § 265.314 which establish an effective date for the prohibition of bulk liquids and the use of absorbents to eliminate free liquids. The State rules previously allowed the use of absorbents to eliminate free liquids in waste being disposed at interim status landfills. The State prohibition on the use of absorbents is reasonable in order to maintain consistency with the federal regulations governing interim status landfills.

This rule is also amended to include a reference to the Paint Filter Liquids Test required as part of the waste analysis requirements to be included in the waste analysis plan, and to require that the Paint Filter Liquids Test be used for determining the presence or absence of free liquids in the wastes received at the facility. These provisions are reasonable for the same reasons discussed in Section Y.

FF. Minn. Rules Pt. 7001.0150 (Terms and Conditions of Permits).

Minn. Rules pt. 7001.0150, subp. 2 is amended to provide that the permit must contain conditions that the director determines are necessary to protect human health and the environment and that the permittee must keep records for three years from the date of sample, measurement, report certification or application. This is reasonable since it makes it clear when the three-year period begins. The wording in the existing rule provides only that the records

are kept for three years, but the start date of the three-year period is unclear. The amendment also requires that the permittee retain the waste minimization certification required by Minn. Rules pt. 7045.0478, subp. 3, for three years. These changes are equivalent to 40 CFR §§ 270.30 and 270.32, and omission would be less stringent than the federal program.

GG. Minn. Rules Pt. 7001.0520 (Permit Requirements). Minn. Rules pt. 7001.0520 is amended to add a requirement to subpart 3, item B which sets forth the requirements for publicly owned treatment works (POTW) that accept hazardous wastes and are eligible for a hazardous waste facility permit by rule. Subp. 3, item B, subitem (3) is amended to require compliance with the corrective action provisions of Minn. Rules pt. 7045.0485. This requirement applies to a POTW which accepts hazardous waste by truck, rail, or a pipe that does not carry sewage. The corrective action requirement would apply to any releases from solid waste or hazardous waste management units at the POTW, which includes wastewater treatment sludge units. Failure to include this requirement would be less stringent than 40 CFR § 270.60 (c).

HH. Minn. Rules Pt. 7001.0590 (Part B Information for Surface Impoundments).

Minn. Rules pt. 7001.0590 is amended to set forth the information requirements on potential exposure to the public by hazardous wastes or hazardous constituents through releases related to a surface impoundment. Along with the hazardous waste facility permit application, the facility owner or operator must submit a detailed engineering report addressing the potential releases from normal operations and accidents at the facility, including

incidents associated with transportation to or from the facility; potential pathways of human exposure to hazardous wastes or hazardous constituents associated with the facility; and the potential nature and magnitude of the human exposure resulting from such releases. In addition, the owners or operators of surface impoundments who have already submitted a Part B application must also submit the exposure information. This is a reasonable requirement since it provides for an evaluation of the public risk presented by management of hazardous waste in a surface impoundment. This is equivalent to 40 CFR § 270.10 (j).

II. Minn. Rules Pt. 7001.0600 (Part B Information Requirements for Waste Piles).

Minn. Rules pt. 7001.0600 is amended to set forth additional Part B information requirements for waste piles. The amendment to item B is the addition of a provision which allows a permit applicant applying for certain exemptions to the location requirements to submit detailed plans and an engineering report describing how the operational and design requirements of pt. 7045.0534, subp. 1 will be met. Pt. 7045.0534, subp. 1 requires design and operation of the waste pile to minimize runoff, run-on, leachate generation, and wind dispersal of the waste. The previous language was unclear as to how compliance would be achieved. In addition, the permittee must provide a description in the inspection plan of the inspection procedure for the waste pile, including the liner and appurtenances for run-on and run-off control. This is reasonable because it assures that the owner or operator of a waste pile will inspect the facility, and control run-on, run-off and leachate which may

pose a threat to human health and the environment. These provisions must be included to be equivalent to those in 40 CFR §§ 270.18 (b) and 270.18 (d).

JJ. Minn. Rules Pt. 7001.0620 (Part B Information Requirements for Landfills).

Minn. Rules pt. 7001.0620 is amended to set forth the specific information requirements on potential exposure to the public by hazardous wastes or hazardous constituents through releases related to a hazardous waste landfill. Along with the hazardous waste facility permit application, the facility owner or operator must submit a detailed engineering report addressing the potential for the public to be exposed to hazardous constituents through releases related to the facility including incidents associated with potential releases from normal operations and accidents at the facility, including incidents associated with transportation to or from the facility; potential pathways of human exposure to hazardous wastes or hazardous constituents associated with the facility; and the potential nature and magnitude of human exposure resulting from such releases. In addition, the owners or operators of landfills who have already submitted a Part B application must also submit the exposure information. This is a reasonable requirement since it provides for an evaluation of the public risk presented by a hazardous waste landfill. Omission of this provision would be less stringent than 40 CFR § 270.10 (j).

The rule is also amended to address the requirement in 40 CFR § 270.21 that an explanation be provided to explain how compliance with the bulk liquid prohibition has been achieved. In Minnesota bulk liquids have always been prohibited from landfill disposal but the use of absorbents has been allowed.

This explanation must address how compliance with the federal prohibition on absorbents was addressed before the same prohibition was incorporated into the State rules.

KK. Minn. Rules Pt. 7001.0650 (Interim Status).

Minn. Rules pt. 7001.0650 is amended to clarify certain qualifications for interim status of a facility. Minn. Rules pt. 7001.0650, subp. 1 is amended to provide that a facility is eligible for interim status if it was in existence on the effective date of rule amendments which make the facility subject to the requirement to have a hazardous waste facility permit. This is reasonable since a facility would unknowingly be in violation for not having a permit if it were not eligible for interim status.

However, items C and D are added to clarify that a facility which has been previously denied a hazardous waste facility permit or a facility which no longer has authority to operate under its permit is not eligible for interim status. This is reasonable because it further clarifies the conditions under which a facility is eligible for interim status. These requirements are equivalent to those of 40 CFR § 270.70.

Minn. Rules pt. 7001.0650, subp. 7 is amended to add a condition under which interim status will expire for facilities which have already submitted a Part A application and to which interim status has been granted. The added condition terminates State interim status when it is terminated by any of the provisions of 40 CFR § 270.73 (c). This is a reasonable way to incorporate the effect of the federal regulations into the State rules while accommodating EPA's concerns that past effective dates are observed. Failure to include the federal

requirements would make Minnesota's rules less stringent than the federal regulations.

LL. Minn. Rules Pt. 7001.0712 (Research, Development and Demonstration Permits).

Minn. Rules pt. 7001.0712 is added to set forth the procedure for application for research, development, and demonstration permits for hazardous waste facilities, other than land disposal facilities, which propose to utilize an innovative and experimental hazardous waste treatment technology. This part includes requirements for special research, development, and demonstration permits for technologies for which permit standards have not been established. The permits must contain terms and conditions to assure protection of human health and the environment by limiting the volumes and types of wastes only to those which are necessary for determining the efficacy and performance capabilities of the technology and process. The permits must include requirements for monitoring, operations, financial responsibility, closure, and remedial action. These requirements are reasonable since the facility owner or operator needs to understand what is required for a demonstration project.

The term of the permit is one year. Each permit may be renewed not more than three times and each renewal shall be for a period of not more than one year. In addition, the director may order an immediate termination of all operations at the facility at any time he determines that termination is necessary to protect human health and the environment. Limitation of the term of the permit, limiting the renewal to three one-year periods, and providing for termination of operations are reasonable since they provide for review of the

facility operations with the intent of providing the greatest degree of protection of human health and the environment while still allowing development of new processes or technologies for treatment of hazardous waste. Minn. Rules pt. 7001.0712 corresponds to 40 CFR § 270.65.

IV. CONSIDERATION OF SMALL BUSINESS

Minn. Stat. § 14.115 (supp. 1985) requires Minnesota agencies when proposing amendments to existing rules which may affect small business, to consider the impact of the rule or small business. The objective of Minn. Stat. ch. 116 (supp. 1985) is to protect the public health and welfare and the environment from the adverse effects which will result when hazardous waste is mismanaged. Application of less stringent standards to the hazardous wastes generated or managed by small businesses would be contrary to the Agency's mandate since small businesses' hazardous wastes can cause the same environmental harm as that of larger businesses.

The amendments will impose the same requirements on large businesses as small businesses. The amendments will require additional management requirements for hazardous waste and additional facility and permitting standards based on the potential for adverse effects on human health and the environment. This potential is not directly related to the size of the business generating or managing the wastes. Some additional expenses will be incurred as a result of the amendments due to changes in facility standards and resulting changes in the management requirements though these costs are difficult for the MPCA to quantify in the abstract. However, these requirements either follow

specifically from general requirements or are justified under the circumstances.

Those aspects of the amendments that are based on federal regulations promulgated under HSWA are already in effect in Minnesota. Incorporation of these provisions into the State rules will not impose any additional requirements on small businesses that are not currently being imposed by the federal regulations in effect in Minnesota.

V. CONCLUSION

The Agency has, in this document and its exhibits, made its presentation of facts establishing the need for and reasonableness of the proposed amendments to Minnesota's hazardous waste rules. This document constitutes the Agency's Statement of Need and Reasonableness for the proposed amendments to the hazardous waste rules.

VI. LISTS OF EXHIBITS

The Agency is relying on the following documents to support these amendments.

Agency Ex. No.	Title
1	Federal Register, Vol. 50, No. 135, pages 28702-28755, July 15, 1985
2	Resource Conservation and Recovery Act of 1976, as amended, Hazardous and Solid Waste Amendments of 1984. 42 U.S.C. 2002 (a), et seq.
3	Federal Register, Vol. 50, No. 205, pages 42936-42943, October 23, 1985
4	Federal Register, Vol. 51, No. 30, pages 5327-5330, February 13, 1986
5	Federal Register, Vol. 51, No. 37, pages 6537-6542, February 25, 1986
6	Federal Register, Vol. 51, No. 102, pages 19320-19322, May 28, 1986
7	Federal Register, Vol. 50, No. 83, pages 18370-18375, April 30, 1985
8	Federal Register, Vol. 51, No. 153, page 28556, August 8, 1986
9	5 U.S.C.S. § 552 (1986)
10	40 CFR § 2.112 (1984) as amended in 50 Federal Register, page 51659, December 18, 1985
11	Federal Register, Vol. 51, No. 183, page 33612, September 22, 1986

Date: 10/16/86

Thomas J. Kalitowski
Executive Director

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rules Governing Management, Storage, Treatment and Disposal of Hazardous Waste, Minn. Rules Parts 7045.0020, 7045.0075, 7045.0080, 7045.0102, 7045.0120, 7045.0125, 7045.0135, 7045.0139, 7045.0141, 7045.0214, 7045.0261, 7045.0275, 7045.0296, 7045.0302, 7045.0395, 7045.0458, 7045.0460, 7045.0468, 7045.0476, 7045.0478, 7045.0482, 7045.0484, 7045.0485, 7045.0534, 7045.0538, 7045.0552, 7045.0556, 7045.0564, 7045.0584, 7045.0588, 7045.0638, 7001.0150, 7001.0520, 7001.0590, 7001.0600, 7001.0620, 7001.0650, 7001.0712, and 7001.0720.

AFFIDAVIT OF MAILING

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

I, Carl Agerbeck, being duly sworn, deposes and says:

That on the 19th day of November, 1986, at the City of St. Paul, County of Ramsey, State of Minnesota, he served the attached Notice of Intent to Adopt Rules Without a Public Hearing by depositing in the State of Minnesota Central Mail System or in the United States mail for first class mailing at said City of St. Paul, a copy thereof, properly enveloped, with postage prepaid, on all persons and associations who have requested that their names be place on file with the Minnesota Pollution Control Agency for the purpose of receiving notice of the proposed adoption of rules by the Pollution Control Agency.

11-20-86

Subscribed and sworn to before me
this 20th day of November, 1986.

Notary Public

MARYANNE GIBBONS
NOTARY PUBLIC - MINNESOTA
RAMSEY COUNTY
My commission expires 9-24-91

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STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rules Governing Management, Storage, Treatment and Disposal of Hazardous Waste, Minn. Rules Parts 7045.0020, 7045.0075, 7045.0080, 7045.0102, 7045.0120, 7045.0125, 7045.0135, 7045.0139, 7045.0141, 7045.0214, 7045.0261, 7045.0275, 7045.0296, 7045.0302, 7045.0395, 7045.0458, 7045.0460, 7045.0468, 7045.0476, 7045.0478, 7045.0482, 7045.0484, 7045.0485, 7045.0534, 7045.0538, 7045.0552, 7045.0556, 7045.0564, 7045.0584, 7045.0588, 7045.0638, 7001.0150, 7001.0520, 7001.0590, 7001.0600, 7001.0620, 7001.0650, 7001.0712, and 7001.0720.

CERTIFICATE

I hereby certify that the list of persons, associations and other interested groups who have requested, pursuant to Minn. Stat. § 14.14 (Supp. 1985), that their names be placed on file with the Minnesota Pollution Control Agency (Agency) for the purpose of receiving notice of the proposed adoption of rules by the Agency is accurate and complete as of 9:00 a.m., this 19th day of November, 1986.

LaRaine Bengtson

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rules Governing the Management, Storage, Treatment, and Disposal of Hazardous Waste, Minn. Rules Pts. 7045.0020, 7045.0075, 7045.0080, 7045.0102, 7045.0125, 7045.0135, 7045.0139, 7045.0141, 7045.0214, 7045.0261, 7045.0275, 7045.0296, 7045.0302, 7045.0395, 7045.0458, 7045.0460, 7045.0468, 7045.0476, 7045.0478, 7045.0482, 7045.0484, 7045.0485, 7045.0534, 7045.0538, 7045.0552, 7045.0556, 7045.0564, 7045.0584, 7045.0588, 7045.0638, 7001.0150, 7001.0520, 7001.0590, 7001.0600, 7001.0620, 7001.0650, 7001.0712 and 7001.0720

AFFIDAVIT REGARDING REQUESTS FOR NOTIFICATION AS TO SUBMISSION OF RULES TO THE ATTORNEY GENERAL

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Carol Nankivel, being duly sworn on oath deposes and says:

1. That she is the person named in the Notice of Intent to Adopt Rules Without a Public Hearing, 11 S.R. 916, November 29, 1986, to receive requests for notification as to submission of rules to the Attorney General.

2. That no requests for notification as to submission of rules to the Attorney General were received by the Agency.

Carol R Nankivel

Subscribed and sworn to before me
this 2 day of March, 1987.

Mary Ann Hammer
Notary Public

MARY ANN HAMMER
NOTARY PUBLIC-MINNESOTA
RAMSEY COUNTY
MY COMMISSION EXPIRES DECEMBER 10, 1991

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Pollution Control Agency

Proposed Permanent Rules Relating to Hazardous Waste Codification

Notice of Intent to Adopt a Rule without a Public Hearing

Notice is hereby given that the State of Minnesota intends to adopt the above-entitled rules without a public hearing following the procedures set forth in the Administrative Procedure Act for adopting rules without a public hearing in Minn. Stat. §§ 14.22 to 14.28. The statutory authority to adopt the rules is Minn.Stat. § 116.07, subd. 4 (1984).

All persons have 30 days in which to submit comment in support of or in opposition to the proposed rules or any part or subpart of the rules. Interested persons have until 4:30 p.m. on December 23, 1986 to submit comments on the proposed rules. Comment is encouraged. Each comment should identify the portion of the proposed rules addressed, the reason for the comment, and any change proposed.

Any person may make a written request for a public hearing on the rules within the 30-day comment period. If 25 or more persons submit a written request for a public hearing within the 30-day comment period, a public hearing will be held unless a sufficient number withdraw their request in writing. Any person requesting a public hearing should state his or her name and address and is encouraged to identify the portion of the proposed rules addressed, the reason for the request, and any change proposed. If a public hearing is required, the Minnesota Pollution Control Agency (MPCA) will proceed pursuant to Minn. Stat. §§ 14.131 to 14.20.

Comments or written requests for a public hearing must be submitted to:

Carol Nankivel
Minnesota Pollution Control Agency
Solid and Hazardous Waste Division
520 Lafayette Road
St. Paul, Minnesota 55155

The proposed rules may be modified if the modifications are supported by data and views submitted to the MPCA and do not result in a substantial change in the proposed rules as noticed.

The proposed rules follow this notice. One free copy of the proposed rules is available from the MPCA. Contact Carol Nankivel at 612/296-7260 or at the address listed above.

A Statement of Need and Reasonableness that describes the need for and reasonableness of each provision of the proposed rules and identifies the data and information relied upon to support the proposed rules has been prepared and is available from Carol Nankivel upon request at 612/296-7260 or at the address listed above.

You are hereby advised pursuant to Minn. Stat.§ 14.115 (supp. 1985), "Small business considerations in rulemaking," that the proposed amendments will have a minimal impact on small businesses. Since most of the amendments are already required under the federal hazardous waste program, the MPCA is merely adopting as State rules the regulations already in effect on the federal level. The amendments which are not based on federal requirements only address the MPCA's change of address and the identification of the hazardous waste manifest form. These are informational changes which will not result in the imposition of additional restrictions on small businesses.

If no hearing is required, upon adoption of the rules, the rules and the required supporting documents will be submitted to the Attorney General for review as to legality and form to the extent the form relates to legality. Any person may request notification of the date of submission to the Attorney General. Persons who wish to be advised of the submission of this material to the Attorney General, or who wish to receive a copy of the adopted rules, must submit the written request to Carol Nankivel at the address listed above.

Dated: November 10, 1986

Thomas J. Kalitowski
Executive Director

Rules as Proposed

7001.0150 TERMS AND CONDITIONS OF PERMITS.

Subpart 1. [Unchanged.]

Subp. 2. **Special conditions.** Each draft and final permit must contain conditions necessary for the permittee to achieve compliance with applicable Minnesota or federal statutes or rules and any conditions that the agency determines to be necessary to protect human health and the environment. If applicable to the circumstances, the conditions must include:

A. and B. [Unchanged.]

C. A requirement that the permittee retain the following items for at least three years from the date of the sample, measurement, report, certification, or application, after which time this period must be automatically extended during the course of an unresolved enforcement action or at the request of the director:

(1) and (2) [Unchanged.]

(3) records of the date, exact location, and time of monitoring and testing which is related to compliance with the terms and conditions of the permit or compliance with Minnesota and federal pollution control statutes and rules, the name of the individual who performed the sampling or measurements, the date the analysis was performed, the name of the individual who performed the analysis, the analytical techniques or methods used, and the results of the analysis; ~~and~~

(4) if applicable, reports required by part 7001.0720, subpart 2, item E; and

(5) if applicable, the certification required by part 7045.0478, subpart 3.

D. [Unchanged.]

Subp. 3. [Unchanged.]

7001.0520 PERMIT REQUIREMENTS.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Permits by rule.** The owner or operator of the following facilities shall be deemed to have obtained a hazardous waste facility permit without making application for it unless the director finds that the following conditions are not met:

A. [Unchanged.]

B. Publicly owned treatment works that accept hazardous waste for treatment, if the owner or operator:

(1) and (2) [Unchanged.]

(3) complies with parts 7045.0452, subpart 2; 7045.0474; 7045.0476; 7045.0478, subparts 1, 2, and 3, items A to C; and 7045.0482, subparts 1, 2, and 3; and for National Pollutant Discharge Elimination System permits issued after November 8, 1984, part 7045.0485; and

(4) accepts a waste that meets all applicable federal, Minnesota, and local pretreatment requirements for that waste if it were to be discharged into the publicly owned treatment works through a sewer, pipe, or other conveyance.

C. and D. [Unchanged.]

Subp. 4. [Unchanged.]

7001.0590 PART B INFORMATION REQUIREMENTS FOR SURFACE IMPOUNDMENTS.

Except as otherwise provided in part 7045.0532, subpart 1, if the applicant proposes to store, treat, or dispose of hazardous waste in surface impoundment facilities, the applicant shall submit detailed plans and specifications accompanied by an engineering report which collectively includes the following information in addition to the information required by part 7001.0560:

A. to K. [Unchanged.]

L. Information reasonably ascertainable by the owner or operator on the potential for the public to be exposed to hazardous wastes or hazardous waste constituents through releases related to the unit. At a minimum, the information must address:

(1) reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(2) the potential pathways of human exposure to hazardous wastes or constituents resulting from releases described in subitem (1); and

(3) the potential magnitude and nature of the human exposure resulting from the releases.

M. Owners and operators of surface impoundments who have already submitted a Part B application and were required to submit the exposure information required in item L to EPA by Code of Federal Regulations, title 40, section 270.10(j), must also submit that information to the director.

KEY: PROPOSED RULES SECTION — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material." ADOPTED RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language.

7001.0600 PART B INFORMATION REQUIREMENTS FOR WASTE PILES.

Except as otherwise provided by part 7045.0534, subpart 1, if the applicant proposes to store or treat hazardous waste in waste piles, the applicant shall furnish the information required by items A to ~~L~~ M in addition to the information required by part 7001.0560:

A. [Unchanged.]

B. If an exemption is sought to parts 7045.0534, subparts 2, items A and B, and 3; and 7045.0484 as provided by part 7045.0534, subpart 1, an explanation of compliance with part 7045.0534, subpart 1, items A to D or detailed plans and an engineering report describing how the requirements of part 7045.0534, subpart 1, items A to D will be met.

C. to L. [Unchanged.]

M. A description of how each waste pile, including the liners and appurtenances for control of run-on and run-off will be inspected in order to meet the requirements of part 7045.0534, subpart 6. This information shall be included in the inspection plan required by part 7001.0560, item E.

7001.0620 PART B INFORMATION REQUIREMENTS FOR LANDFILLS.

Except as otherwise provided by part 7045.0538, subpart 1, if the applicant proposes to dispose of hazardous waste in a landfill, the applicant shall furnish the information designated in items A to ~~J~~ L in addition to the information required by part 7001.0560:

A. to G. [Unchanged.]

H. If bulk or noncontainerized liquid waste or waste containing free liquids ~~is to be~~ were landfilled before May 8, 1985, and an explanation of compliance with the requirements of part 7045.0538, subpart 10 was submitted to EPA by Code of Federal Regulations, title 40, section 270.21(h), that explanation must also be submitted to the director.

I. and J. [Unchanged.]

K. Information reasonably ascertainable by the owner or operator on the potential for the public to be exposed to hazardous constituents through releases related to the unit. At a minimum, the information must address:

(1) reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(2) the potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described in subitem (1);

(3) the potential magnitude and nature of the human exposure resulting from the releases.

L. Owners or operators of a landfill who have already submitted a Part B application and were required to submit the exposure information required in item K to EPA by Code of Federal Regulations, title 40, section 270.10(j), must also submit that information to the director.

7001.0650 INTERIM STATUS.

Subpart 1. **Qualifying for interim status.** Except as provided in subpart 2, during the period after the submission of Part A of a hazardous waste facility permit application to the Environmental Protection Agency or to the director and prior to a final determination by the agency on the permit application, the owner or operator of an existing hazardous waste facility or a facility in existence on the effective date of statutory or regulatory amendments under the Resource Conservation and Recovery Act that render the facility subject to the requirement to have a hazardous waste facility permit shall be considered to be in compliance with the requirement to obtain a permit if the director finds that the Environmental Protection Agency has granted the owner or operator interim status or if the director finds:

A. that the owner or operator has submitted a timely and complete Part A of the hazardous waste facility permit application to the Environmental Protection Agency or to the director; ~~and~~

B. that the owner or operator is in compliance with parts 7045.0552 to 7045.0642;

C. that the agency or the EPA has not previously refused to issue a new or modified hazardous waste facility permit for the facility; and

D. that the agency or the EPA has not previously revoked without reissuance a hazardous waste facility permit for the facility.

Subp. 2. to 6. [Unchanged.]

Subp. 7. **Termination of interim status.** Interim status terminates automatically when the agency has taken final administrative action on the permit application or when terminated by Code of Federal Regulations, title 40, section 270.73(c). The following constitute justification for the director to commence proceedings to terminate interim status:

A. and B. [Unchanged.]

7001.0712 RESEARCH, DEVELOPMENT, AND DEMONSTRATION PERMITS.

Subpart 1. **Scope.** This part applies to research, development, or demonstration facilities other than land treatment demonstration facilities governed by part 7001.0710.

Subp. 2. **Permit requirement.** A person who desires to own or operate a research, development, or demonstration facility utilizing an innovative and experimental hazardous waste treatment technology or process for which permit standards have not been adopted in chapter 7045 shall request a permit from the agency.

Subp. 3. **Terms of permit.** A permit governed by this part is effective for a fixed term not to exceed one year. At the request of the permittee, the director shall renew the permit for one additional year if the director finds that the permittee is in compliance with the conditions of the permit and that the operation of the facility does not pose a threat to human health and the environment. In no event shall the director renew the permit more than three times.

Subp. 4. **Conditions of permit.** The permit shall authorize the receipt and treatment by the facility of only those types and quantities of hazardous waste that the director considers necessary for the purpose of determining the efficiency and performance capabilities of the technology or process and the effects of the technology or process on human health and the environment.

The permit shall contain all applicable special and general conditions in parts 7001.0150 and 7001.0720 and conditions concerning financial responsibility under parts 7045.0498 to 7045.0524, closure, and remedial action. The permit shall provide for the immediate termination of all operations at the facility at any time upon receipt of notification from the director that termination of operations is necessary to protect human health or the environment.

7001.0720 TERMS AND CONDITIONS OF HAZARDOUS WASTE FACILITY PERMITS.

Subpart 1. **Term of permit.** Except as provided in part 7001.0712, subpart 3, a hazardous waste facility permit is effective for a fixed term not to exceed five years.

Subp. 2. [Unchanged.]

7045.0020 DEFINITIONS.

Subpart 1. to 55. [Unchanged.]

Subp. 55a. **Marketer.** "Marketer" means a person who, for the purpose of burning for energy recovery, processes, blends, or distributes waste oil, used oil, or hazardous waste. "Marketer" includes a generator who processes, distributes, or blends such fuel directly to a person who burns it.

Subp. 56. to 102. [Unchanged.]

Subp. 102a. **Waste oil.** "Waste oil" means virgin oil that is discarded before use.

Subp. 103. to 108. [Unchanged.]

7045.0075 PETITIONS.

Subpart 1. [Unchanged.]

Subp. 2. **Petitions to exclude a waste produced at a particular facility.** Petitions to exclude a waste produced at a particular facility are as follows:

A. Any person seeking to exclude a waste at a particular generating facility from regulation under this chapter may petition under these provisions. The petitioner must demonstrate to the satisfaction of the agency that the waste produced by a particular generating facility does not meet any of the criteria under which the waste was listed as a hazardous waste and, in the case of an acutely hazardous waste meeting the criteria in part 7045.0129, subpart 1, item B, that it also does not meet the criteria of part 7045.0129, subpart 1, item C. In determining whether to exclude a waste as requested by the petition, the agency must consider the factors considered at the time the waste was listed and, if the agency has reason to believe that other factors, including additional constituents, could also cause the waste to be hazardous, the agency must also consider these other factors. In order to exclude a waste as requested by the petition, the agency must determine that no factor exists that warrants retaining the classification of the waste as hazardous. A waste which is so excluded may still, however, be a hazardous waste by operation of part 7045.0131.

B. and C. [Unchanged.]

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D. If the waste is listed with codes "I," "C," "R," or "E" in part 7045.0135, the petitioner must show that ~~demonstration samples of~~ the waste ~~do~~ does not exhibit a relevant characteristic defined in part 7045.0131 using any applicable ~~test~~ methods prescribed in part 7045.0131. The petitioner also must show that the waste does not exhibit any of the other characteristics in part 7045.0131 using any applicable method prescribed in part 7045.0131. In determining whether to exclude a waste as requested by the petition, the agency must consider the factors considered at the time the waste was listed and, if the agency has reason to believe that other factors, including additional constituents, could also cause the waste to be hazardous, the agency must also consider these other factors. In order to exclude a waste as requested by the petition, the agency must determine that no factor exists that warrants retaining the classification of the waste as hazardous. A waste which is so excluded, however, may still be a hazardous waste by operation of part 7045.0131.

E. If the waste is listed with code "T" in part 7045.0135, ~~the petitioner must demonstrate that:~~ subitems (1) to (4) apply.

(1) ~~demonstration samples of the waste do~~ The petitioner must demonstrate that the waste:

(a) does not contain the constituent or constituents that caused the agency to list the waste, using the appropriate test methods prescribed in Code of Federal Regulations, title 40, part 261, appendix III ~~(1983)~~; or

~~(2)~~ (b) although containing one or more of the hazardous constituents, as defined in part 7045.0141, that caused the agency to list it, the waste does not meet the criterion of part 7045.0129, subpart 1, item C, when considering the factors in part 7045.0129, subpart 1, item C, subitems (1) to (11).

(2) In determining whether to exclude a waste as requested by the petition, the agency must consider the factors considered at the time the waste was listed and, if the agency has reason to believe that other factors, including additional constituents, could also cause the waste to be hazardous, the agency must also consider these other factors. In order to exclude a waste as requested by the petition, the agency must determine that no factor exists that warrants retaining the classification of the waste as hazardous.

(3) The petitioner must demonstrate that the waste does not exhibit any of the characteristics defined in part 7045.0131 using any applicable methods prescribed therein.

(4) A waste which is so excluded, however, still may be a hazardous waste by operation of part 7045.0131.

F. If the waste is listed with the code "H" in part 7045.0135, the petitioner must demonstrate that the waste does not meet the criterion of part 7045.0129, subpart 1, item B~~, and that the waste does not meet the criterion of part 7045.0129, subpart 1, when considering the factors listed in part 7045.0129, subpart 1, item C, subitems (1) to (11)~~.

(1) In determining whether to exclude a waste as requested by the petition, the agency must consider the factors considered at the time the waste was listed and, if the agency has reason to believe that other factors, including additional constituents, could also cause the waste to be hazardous, the agency must also consider these other factors. In order to exclude a waste as requested by the petition, the agency must determine that no factor exists that warrants retaining the classification of the waste as hazardous.

(2) The petitioner must demonstrate that the waste does not exhibit any of the characteristics defined in part 7045.0131 using any applicable methods prescribed therein.

(3) A waste which is so excluded, however, still may be a hazardous waste by operation of part 7045.0131.

G. [Unchanged.]

H. After receiving a petition for an exclusion, the agency or the director may request any additional information which it may reasonably require to evaluate the petition. An exclusion will only apply to the waste generated at the individual facility covered by the demonstration and will not apply to waste from any other facility. The agency may exclude only part of the waste for which the demonstration is submitted when it has reason to believe that variability of the waste justifies a partial exclusion. ~~The agency may grant a temporary exclusion before making a final decision whenever it finds that there is a substantial likelihood that an exclusion will be finally granted.~~

Subp. 3. and 4. [Unchanged.]

7045.0080 DATA AVAILABILITY.

Subpart 1. **Applicability.** The following apply to requests to the Minnesota Pollution Control Agency for information relating to facilities and sites for treatment, storage, and disposal of hazardous waste.

Subp. 2. **Response to requests.** Except as provided in subpart 3, the director shall issue a written response to a requester of information within ten working days of receiving the request for information. The written response shall state what information will and will not be provided and shall state the reason for denying any portion of the request.

Subp. 3. **Extensions.** The following provisions apply to extensions of time to respond to requests for information:

A. If the request for information does not reasonably identify the information sought, the director shall so notify the requester. There shall be excluded from the ten-day response period established under subpart 2, or any extension to that response

period provided under item B, any time that elapses between the date that a requester is notified by the director that the request does not reasonably identify the records sought, and the date that the requester furnishes a reasonable identification.

B. In circumstances in which an extension is necessary due to one or more of the following reasons, the ten-day response period established in subpart 2 shall be extended by the director for a period of days commensurate with the additional response time required, not to exceed ten additional working days:

(1) there is a need to search for and collect the requested records from field regional offices or other establishments that are separate from the agency's central office;

(2) there is a need to search for, collect, and appropriately examine a voluminous amount of separate and distinct records which are demanded in a single request; or

(3) there is a need for consultation with another agency having a substantial interest in the determination of the request.

The director must notify the requester within the initial ten-day period that the ten-day extension is required and must state the reasons for the extension and the date by which the agency expects to be able to issue its response to the request for information.

Subp. 4. **Failure to act.** If the director fails to issue a response within the response time provided in subpart 2, or an extension provided under subpart 3, a requester may commence an action under Minnesota Statutes, section 13.08 to obtain the requested information.

7045.0102 MIXTURES OF HAZARDOUS AND NONHAZARDOUS WASTES.

Except as provided in parts 7045.0125, subpart 10 and 7045.0665, subpart 5, mixtures of hazardous and nonhazardous wastes are as follows:

A. to G. [Unchanged.]

7045.0120 EXEMPT WASTES.

The following wastes may be stored, labeled, transported, treated, processed, and disposed of without complying with the requirements of this chapter:

A. ~~normal refuse from households including garbage, trash, and sanitary wastes in septic tanks. Households include single and multiple residences, hotels, and motels;~~ household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (for example, refuse derived fuel) or reused. "Household waste" means any material including garbage, trash, and sanitary wastes in septic tanks derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas. A resource recovery facility managing municipal solid waste shall not be considered to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this chapter, if the facility:

(1) Receives or burns only:

(a) household waste from single and multiple dwellings, hotels, motels, and other residential sources; and

(b) solid waste from commercial or industrial sources that does not contain hazardous waste.

(2) Does not accept hazardous wastes and the owner or operator of the facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in the facility.

(3) The owner or operator complies with the following requirements in the event hazardous waste is inadvertently received at the facility:

(a) the owner or operator makes an effort to determine the source of the hazardous waste, to return the waste to the generator and to notify the agency of the responsible generator; and, it is not possible for the owner or operator to return the waste to the generator, the owner or operator maintains a record of known hazardous waste received with a description of the waste, quantity received, and date received;

(b) the owner or operator complies with the following requirements for hazardous waste generators: parts 7045.0221; 7045.0261; 7045.0265; 7045.0270; 7045.0275; 7045.0292, subpart 1, items B to G; 7045.0294; and 7045.0296;

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(c) all hazardous wastes are shipped for treatment, storage, or disposal to a permitted facility within one year after receipt; and

(d) the owner or operator has a solid waste permit, if required.

Such inadvertently received hazardous waste is not subject to the quantity limitations of part 7045.0219, subpart 1, nor the accumulation provisions of part 7045.0292, subpart 1, item A.

(4) The owner or operator evaluates the ash in accordance with the procedures in part 7045.0214, subpart 2, and the solid waste permit conditions.

B. to P. [Unchanged.]

7045.0125 MANAGEMENT OF WASTE BY USE, REUSE, RECYCLING, AND RECLAMATION.

Subpart 1. to 9. [Unchanged.]

Subp. 10. **Hazardous waste which is beneficially used by burning.** Hazardous waste that is transported or stored ~~prior to~~ before a beneficial use by burning is subject to regulation under the following:

A. and B. [Unchanged.]

C. A cement kiln that burns hazardous waste is subject to the following requirements:

(1) No fuel that contains any hazardous waste may be burned in any cement kiln unless the kiln fully complies with the thermal treatment standards of part 7045.0542.

(2) This requirement does not apply to petroleum refinery hazardous wastes containing oil that are converted into petroleum coke at the same facility at which the wastes were generated unless the resulting coke product would exhibit one or more of the characteristics of hazardous waste in part 7045.0131.

D. No person who produces, distributes, or markets any fuel that contains a hazardous waste may distribute or market the fuel if the invoice or bill of sale fails:

(1) to bear the following statement: "WARNING: THIS FUEL CONTAINS HAZARDOUS WASTE"; and

(2) to list the hazardous waste contained therein. The statement must be located in a conspicuous place on every invoice or bill of sale and must appear in conspicuous and legible type in contrast by typography, layout, or color with other printed matter on the invoice or bill of sale.

Subp. 11. **Hazardous wastes from petroleum refining.** The following hazardous wastes that are produced from petroleum refining are not subject to the labeling requirements of subpart 10, item D.

A. Fuels produced from petroleum refining hazardous waste containing oil if:

(1) the materials are generated and reinserted on-site into the refining process;

(2) the contaminants are removed; and

(3) refining waste containing oil is converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products and which is classified as a number SIC 2911 facility under the Office of Management and Budget Standard Industrial Classification Manual.

B. Fuels produced from oily materials resulting from normal petroleum refining production and transportation practices; if

(1) contaminants are removed; and

(2) the oily materials are converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products and which is classified as a number SIC 2911 facility under the Office of Management and Budget Standard Industrial Classification Manual.

C. Hazardous wastes containing oil which are converted into petroleum coke at the same facility at which the wastes were generated, unless the resulting coke product would exceed one or more of the characteristics of hazardous waste in part 7045.0131.

7045.0135 LISTS OF HAZARDOUS WASTES.

Subpart 1. [Unchanged.]

Subp. 2. **Hazardous wastes from nonspecific sources.** Hazardous wastes from nonspecific sources are listed as follows:

Hazardous Waste No.	Hazardous Waste	Hazard Code
Generic:		
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more by volume of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, ~~and~~ trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more by volume of one or more of the above halogenated solvents or those solvents listed in F001, F004, and F005; and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F003	The following spent nonhalogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent nonhalogenated solvents; and all spent solvent mixtures/blends, containing, before use, one or more of the above nonhalogenated solvents and a total of ten percent or more by volume of one or more of those solvents listed in F001, F002, F004, and F005; and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I)
F004	The following spent nonhalogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more by volume of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002, and F005; and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F005	The following spent nonhalogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, ~~and~~ pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more by volume of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002, and F004; and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I,T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum, (2) tin plating on carbon steel, (3) zinc plating (segregated basis) on carbon steel, (4) aluminum or zinc-aluminum plating on carbon steel, (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel, and (6) chemical etching and milling of aluminum	(T)
F007	Spent cyanide plating bath solutions from electroplating operations	(R,T)
F008	Plating bath sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process	(R,T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	(R,T)
F010	Quenching bath residues from oil baths from metal heat-treating operations where cyanides are used in the process	(R,T)
F011		(R,T)
F012	Quenching wastewater treatment sludges from metal heat-treating operations where cyanides are used in the process	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum	(T)
F020	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol.	(H)

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Hazardous Waste No.	Substance	Hazard Code
F021	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the production or manufacturing use as a reactant,chemical intermediate, or component in a formulating process of tri- and tetrachlorophenols. This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol.	(H)
F024	Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor cleanout wastes from the production of chlorinated aliphatichydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. This does not include light ends, spent filters and filter aids, spent dessicants, wastewater, wastewater treatment sludges, and spent catalysts.	(T)
F026	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with hazardous waste Nos. F020, F021, F022, F023, F026, and F027.	(T)

Subp. 3. **Hazardous waste from specific sources.** Hazardous wastes from specific sources are listed as follows:

Industry and Hazardous Waste No.	Hazardous Waste	Hazard Code
Wood Preservation:		
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol	(T)
Inorganic Pigments:		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments, anhydrous and hydrated	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments	(T)
K008	Oven residue from the production of chrome oxide green pigments	(T)
Organic Chemicals:		
K009	Distillation bottoms from the production of acetaldehyde from ethylene	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(R,T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	(R,T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(T)
K015	Still bottoms from the distillation of benzyl chloride	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	(T)

Hazardous Waste No.	Substance	Hazard Code
K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(T)
K024	Distillation bottoms from the production of phthalic anhydride from napthalene	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production	(R,T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene	(T)
K083	Distillation bottoms from aniline production	(T)
K103	Process residues from aniline extraction from the production of aniline	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes	(T)
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	(C,T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine	(T)
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)
Inorganic Chemicals:		
K071	Brine purification muds from the mercury cell process in chlorine production, when separately prepurified brine is not used	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production	(T)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production	(T)
Pesticides:		
K031	By-product salts generated in the production of monosodium methanearsonate (MSMA) and cacodylic acid	(T)
K032	Wastewater treatment sludge from the production of chlordane	(T)
K033	Wastewater and scrub water from the chlorination of cyclo-pentadiene in the production of chlordane	(T)

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Hazardous Waste No.	Substance	Hazard Code
K034	Filter solids from the filtration of hexachloro-cyclopentadiene in the production of chlordane	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	(T)
K035	Wastewater treatment sludges generated in the production of creosote	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	(T)
K037	Wastewater treatment sludges from the production of disulfoton	(T)
K038	Wastewater from the washing and stripping of phorate production	(T)
K039	Filter cake from the filtration of diethylphos-phorodithioic acid in the production of phorate	(T)
K040	Wastewater treatment sludge from the production of phorate	(T)
K041	Wastewater treatment sludge from the production of toxaphene	(T)
K098	Untreated process wastewater from the production of toxaphene	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
K099	Untreated wastewater from the production of 2,4-D	(T)
Explosives:		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives	(R)
K045	Spent carbon from the treatment of wastewater containing explosives	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds	(T)
K047	Pink/red water from operations involving 2,4,6-trinitro-toluene (TNT)	(R)
Petroleum Refining:		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	(T)
K049	Slop oil emulsion solids from the petroleum refining industry	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
K051	American Petroleum Institute separator sludge from the petroleum refining industry as specified in The Manual on Disposal of Refinery Wastes, volume 1, issued by the American Petroleum Institute, (Washington, D.C., 1969), available at the State of Minnesota Law Library	(T)
K052	Tank bottoms (leaded) from the petroleum refinery industry	(T)
Iron and Steel:		
K061	Emission control dust or sludge from the primary production of steel in electric furnaces	(T)
K062	Spent pickle liquor ~~from~~ generated by steel finishing operations of plants that produce iron or steel	(C,T)
Secondary Lead:		
K069	Emission control dust or sludge from secondary lead smelting	(T)
K100	Waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting	(T)
Veterinary Pharmaceuticals:		
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
Ink Formulation:		
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead	(T)
Coke:		
K060	Ammonia still lime sludge from coking operations	(T)
K087	Decanter tank tar sludge from coking operations	(T)

Subp. 4. **Discarded commercial chemical products, off-specification species, containers, and spill residues.** The following materials or items are hazardous wastes when they are discarded or intended to be discarded ~~as defined in part 7045.0020, when they are burned for purposes of energy recovery in lieu of their original intended use, when they are used to produce fuels in lieu~~

~~of their original intended use, when they are applied to the land in lieu of their original intended use, or when they are contained in products that are applied to the land in lieu of their original intended use;~~ when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment; or when, in lieu of their original use, they are produced for use as, or as a component of a fuel, distributed for use as a fuel, or burned as a fuel.

A. to D. [Unchanged.]

E. the commercial chemical products or manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates referred to in items A to D and listed in the following table, are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, items B and C. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), and R (reactivity). Absence of a letter indicates that the compound is listed only for acute toxicity. These wastes and their corresponding hazardous waste numbers are listed as follows:

Hazardous Wastes from Commercial Chemical Products

Hazardous Waste No.	Substance	Hazard Code
P023	Acetaldehyde, chloro-	
P002	Acetamide, N-(aminothioxomethyl)-	
P057	Acetamide, 2-fluoro-	
P058	Acetic acid, fluoro-, sodium salt	
P066	Acetimidic acid, N-[(methylcarbamoyl)oxy] thio-, methyl ester	
P001	3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin and salts when present at concentrations greater than 0.3 percent	
P002	1-Acetyl-2-thiourea	
P003	Acrolein	
P070	Aldicarb	
004	Aldrin	
P005	Allyl alcohol	
P006	Aluminum phosphide	(R,T)
P007	5-(Aminomethyl)-3-isoxazolol	
P008	4-Aminopyridine	
P009	Ammonium picrate	(R)
P119	Ammonium vanadate	
P010	Arsenic acid	
P012	Arsenic (III) oxide	
P011	Arsenic (V) oxide	
P011	Arsenic pentoxide	
P012	Arsenic trioxide	
P038	Arsine, diethyl-	
P054	Aziridine	
P013	Barium cyanide	
P024	Benzenamine, 4-chloro-	
P077	Benzenamine, 4-nitro-	
P028	Benzene, (chloromethyl)-	
P042	1,2-Benzenediol, 4-[1-hydroxy-2-(methyl-amino)ethyl]-	
P014	Benzenethiol	
P028	Benzyl chloride	
P015	Beryllium dust	
P016	Bis(chloromethyl) ether	

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Hazardous Waste No.	Substance	Hazard Code
P017	Bromoacetone	
P018	Brucine	
P021	Calcium cyanide	
P123	Camphene, octachloro-	
P103	Carbamimidoselenoic acid	
P022	Carbon bisulfide	
P022	Carbon disulfide	
P095	Carbonyl chloride	
P033	Chlorine cyanide	
P023	Chloroacetaldehyde	
P024	p-Chloroaniline	
P026	1-(o-Chlorophenyl)thiourea	
P027	3-Chloropropionitrile	
P029	Copper cyanides	
P030	Cyanides (soluble cyanide salts), not elsewhere specified	
P031	Cyanogen	
P033	Cyanogen chloride	
P036	Dichlorophenylarsine	
P037	Dieldrin	
P038	Diethylarsine	
P039	O,O-Diethyl S-[2-(ethylthio)ethyl] phosphorodithioate	
P041	Diethyl-p-nitrophenyl phosphate	
P040	O,O-Diethyl O-pyrazinyl phosphorothioate	
P043	Diisopropyl fluorophosphate	
P044	Dimethoate	
P045	3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino)carbonyl] oxime	
P071	O,O-Dimethyl O-p-nitrophenyl phosphorothioate	
P082	Dimethylnitrosamine	
P046	alpha, alpha-Dimethylphenethylamine	
P047	4,6-Dinitro-o-cresol and salts	
P034	4,6-Dinitro-o-cyclohexylphenol	
P048	2,4-Dinitrophenol	
P020	Dinoseb	
P085	Diphosphoramide, octamethyl-	
P039	Disulfoton	
P049	2,4-Dithiobiuret	
P109	Dithiopyrophosphoric acid, tetraethyl ester	
P050	Endosulfan	
P088	Endothall	
P051	Endrin	
P042	Epinephrine	
P046	Ethanamine, 1,1-dimethyl-2-phenyl-	
P084	Ethenamine, N-methyl-N-nitroso-	
P101	Ethyl cyanide	
P054	Ethylenimine	
P097	Famphur	
P056	Fluorine	
P057	Fluoroacetamide	
P058	Fluoroacetic acid, sodium salt	
P065	Fulminic acid, mercury(II) salt	(R,T)
P059	Heptachlor	
P051	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene	
P037	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,exo-1,4:5,8-dimethanonaphthalene	
P060	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,endo-dimethanonaphthalene	
P004	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,exo-dimethanonaphthalene	

Hazardous Waste No.	Substance	Hazard Code
P060	Hexachlorohexahydro-endo,endo-dimethanonaphthalene	
P062	Hexaethyl tetraphosphate	
P116	Hydrazinecarbothioamide	
P068	Hydrazine, methyl-	
P063	Hydrocyanic acid	
P063	Hydrogen cyanide	
P096	Hydrogen phosphide	
P064	Isocyanic acid, methyl ester	
P007	3(2H)-Isoxazolone, 5-(aminomethyl)-	
P092	Mercury, (acetato-O)phenyl-	(R,T)
P065	Mercury fulminate	
P016	Methane, oxybis(chloro)-	(R)
P112	Methane, tetranitro-	
P118	Methanethiol, trichloro-	
P059	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-hep-tachloro-3a,4,7,7a-tetrahydro-	
P066	Methomyl	
P067	2-Methylaziridine	
P068	Methyl hydrazine	
P064	Methyl isocyanate	
P069	2-Methyllactonitrile	
P071	Methyl parathion	
P072	alpha-Naphthylthiourea	
P073	Nickel carbonyl	
P074	Nickel cyanide	
P074	Nickel(II) cyanide	
P073	Nickel tetracarbonyl	
P075	Nicotine and salts	
P076	Nitric oxide	
P077	p-Nitroaniline	
P078	Nitrogen dioxide	
P076	Nitrogen(II) oxide	
P078	Nitrogen(IV) oxide	(R)
P081	Nitroglycerine	
P082	N-Nitrosodimethylamine	
P084	N-Nitrosomethylvinylamine	
P050	5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro, cyclic sulfite	
P085	Octamethylpyrophosphoramide	
P087	Osmium oxide	
P087	Osmium tetroxide	
P088	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	
P089	Parathion	
P034	Phenol, 2-cyclohexyl-4,6-dinitro-	
P048	Phenol, 2,4-dinitro-	
P047	Phenol, 2,4-dinitro-6-methyl-, and salts	
P020	Phenol, 2,4-dinitro-6-(1-methylpropyl)-	(R)
P009	Phenol, 2,4,6-trinitro-, ammonium salt	
P036	Phenyl dichloroarsine	
P092	Phenylmercuric acetate	
P093	N-Phenylthiourea	

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Hazardous Waste No.	Substance	Hazard Code
P094	Phorate	
P095	Phosgene	
P096	Phosphine	
P041	Phosphoric acid, diethyl p-nitrophenyl ester	
P044	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl]ester	
P043	Phosphorofluoridic acid, bis(1-methylethyl) ester	
P094	Phosphorothioic acid, O,O-diethyl S-(ethylthio)methyl ester	
P089	Phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl) ester	
P040	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	
P097	Phosphorothioic acid, O,O-dimethyl O-[p-((dimethylamino)-sulfonyl)phenyl]ester	
P110	Plumbane, tetraethyl-	
P098	Potassium cyanide	
P099	Potassium silver cyanide	
P070	Propanal, 2-methyl-2-(methylthio)-, O- [(methylamino)carbonyl]oxime	
P101	Propanenitrile	
P027	Propanenitrile, 3-chloro-	
P069	Propanenitrile, 2-hydroxy-2-methyl-	
P081	1,2,3-Propanetriol, trinitrate-	(R)
P017	2-Propanone, 1-bromo-	
P102	Propargyl alcohol	
P003	2-Propenal	
P005	2-Propen-1-ol	
P067	1,2-Propylenimine	
P102	2-Propyn-1-ol	
P008	4-Pyridinamine	
P075	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts	
P111	Pyrophosphoric acid, tetraethyl ester	
P103	Selenourea	
P104	Silver cyanide	
P105	Sodium azide	
P106	Sodium cyanide	
P107	Strontium sulfide	
P108	Strychnidin-10-one, and salts	
P018	Strychnidin-10-one, 2,3-dimethoxy-	
P108	Strychnine and salts	
P115	Sulfuric acid, thallium(I) salt	
P109	Tetraethyldithiopyrophosphate	
P110	Tetraethyl lead	
P111	Tetraethylpyrophosphate	
P112	Tetranitromethane	(R)
P062	Tetraphosphoric acid, hexaethyl ester	
P113	Thallic oxide	
P113	Thallium(III) oxide	
P114	Thallium(I) selenide	
P115	Thallium(I) sulfate	
P045	Thiofanox	
P049	Thioimidodicarbonic diamide	
P014	Thiophenol	
P116	Thiosemicarbazide	
P026	Thiourea, (2-chlorophenyl)-	
P072	Thiourea, 1-naphthalenyl-	
P093	Thiourea, phenyl-	
P123	Toxaphene	

Hazardous Waste No.	Substance	Hazard Code
P118	Trichloromethanethiol	
P119	Vanadic acid, ammonium salt	
P120	Vanadium pentoxide	
P120	Vanadium(V) oxide	
P001	Warfarin when present at concentrations greater than 0.3 percent	
P121	Zinc cyanide	
P122	Zinc phosphide when present at concentrations greater than 10 percent	(R,T)

F. The commercial chemical products or manufacturing chemical intermediates, or off-specification commercial chemical products referred to in items A to D, and listed in the following table are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, item A. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), R (reactivity), I (ignitability), and C (corrosivity). Absence of a letter indicates that the compound is listed only for toxicity. These wastes and their corresponding hazardous waste numbers are listed as follows:

Hazardous Wastes from Commercial Chemical Products

Hazardous Waste No.	Substance	Hazard Code
U001	Acetaldehyde	(I)
U034	Acetaldehyde, trichloro-	
U187	Acetamide, N-(4-ethoxyphenyl)-	
U005	Acetamide, N-9H-fluoren-2-yl-	
U112	Acetic acid, ethyl ester	(I)
U144	Acetic acid, lead salt	
U214	Acetic acid, thallium(I) salt	
U002	Acetone	(I)
U003	Acetonitrile	(I,T)
U248	3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin and salts when present at concentrations of 0.3 percent or less	
U004	Acetophenone	
U005	2-Acetylaminofluorene	
U006	Acetyl chloride	(C,R,T)
U007	Acrylamide	
U008	Acrylic acid	(I)
U009	Acrylonitrile	
U150	Alanine, 3-[p-bis(2-chloroethyl)amino] phenyl-,L-	
U011	Amitrole	
U328	2-Amino-1-methylbenzene	
U353	4-Amino-1-methylbenzene	
U012	Aniline	(I,T)
U014	Auramine	
U015	Azaserine	
U010	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-,	
U157	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	
U016	Benz[c]acridine	
U016	3,4-Benzacridine	
U017	Benzal chloride	
U018	Benz[a]anthracene	

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Hazardous Waste No.	Substance	Hazard Code
U018	1,2-Benzanthracene	
U094	1,2-Benzanthracene, 7,12-dimethyl-	
U012	Benzenamine	(I,T)
U014	Benzenamine, 4,4'-carbonimidoylbis (N,N-dimethyl)-	
U049	Benzenamine, 4-chloro-2-methyl-	
U093	Benzenamine, N,N'-dimethyl-4-phenylazo-	
U158	Benzenamine, 4,4'-methylenebis (2-chloro)-	
U222	Benzenamine, 2-methyl-, hydrochloride	
U181	Benzenamine, 2-methyl-5-nitro	
U019	Benzene	(I,T)
U038	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy, ethyl ester	
U030	Benzene, 1-bromo-4-phenoxy-	
U037	Benzene, chloro-	
U190	1,2-Benzenedicarboxylic acid anhydride	
U028	1,2-Benzenedicarboxylic acid, [bis(2-ethyl-hexyl)] ester	
U069	1,2-Benzenedicarboxylic acid, dibutyl ester	
U088	1,2-Benzenedicarboxylic acid, diethyl ester	
U102	1,2-Benzenedicarboxylic acid, dimethyl ester	
U107	1,2-Benzenedicarboxylic acid, di-n-octyl ester	
U070	Benzene, 1,2-dichloro-	
U071	Benzene, 1,3-dichloro-	
U072	Benzene, 1,4-dichloro-	
U017	Benzene, (dichloromethyl)-	
U223	Benzene, 1,3-diisocyanatomethyl-	(R,T)
U239	Benzene, dimethyl-	(I,T)
U201	1,3-Benzenediol	
U127	Benzene, hexachloro-	
U056	Benzene, hexahydro-	(I)
U188	Benzene, hydroxy-	
U220	Benzene, methyl-	
U105	Benzene, 1-methyl-1-2,4-dinitro-	
U106	Benzene, 1-methyl-2,6 dinitro-	
U203	Benzene, 1,2-methylenedioxy-4-allyl-	
U141	Benzene, 1,2-methylenedioxy-4-propenyl-	
U090	Benzene, 1,2-methylenedioxy-4-propyl-	
U055	Benzene, (1-methylethyl)-	(I)
U169	Benzene, nitro-	(I,T)
U183	Benzene, pentachloro-	
U185	Benzene, pentachloronitro-	
U020	Benzenesulfonic acid chloride	(C,R)
U020	Benzenesulfonyl chloride	(C,R)
U207	Benzene, 1,2,4,5-tetrachloro-	
U023	Benzene, (trichloromethyl)-	(C,R,T)
U234	Benzene, 1,3,5-trinitro-	(R,T)
U021	Benzidine	
U202	1,2-Benzisothiazolin-3-one,1,1-dioxide and salts	
U120	Benzo[j,k]fluorene	
U022	Benzo[a]pyrene	
U022	3,4-Benzopyrene	
U197	p-Benzoquinone	
U023	Benzotrichloride	(C,R,T)
U050	1,2-Benzphenanthrene	
U085	2,2'-Bioxirane	(I,T)
U021	(1,1'-Biphenyl)-4,4'-diamine	
U073	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-	

Hazardous Waste No.	Substance	Hazard Code
U091	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-	
U095	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	
U024	Bis(2-chloroethoxy) methane	
U027	Bis(2-chloroisopropyl) ether	
U244	Bis(dimethylthiocarbamoyl) disulfide	
U028	Bis(2-ethylhexyl) phthalate	
U246	Bromine cyanide	
U225	Bromoform	
U030	4-Bromophenyl phenyl ether	
U128	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	
U172	1-Butanamine, N-butyl-N-nitroso-	
U035	Butanoic acid, 4-[bis(2-chloroethyl) amino] benzene-	
U031	1-Butanol	(I)
U159	2-Butanone	(I,T)
U160	2-Butanone peroxide	(R,T)
U053	2-Butenal	
U074	2-Butene, 1,4-dichloro-	(I,T)
U031	n-Butyl alcohol	(I)
U136	Cacodylic acid	
U032	Calcium chromate	
U238	Carbamic acid, ethyl ester	
U178	Carbamic acid, methylnitroso-, ethyl ester	
U176	Carbamide, N-ethyl-N-nitroso-	
U177	Carbamide, N-methyl-N-nitroso-	
U219	Carbamide, thio-	
U097	Carbamoyl chloride, dimethyl-	
U215	Carbonic acid, dithallium(I) salt	
U156	Carbonochloridic acid, methyl ester	(I,T)
U033	Carbon oxyfluoride	(R,T)
U211	Carbon tetrachloride	
U033	Carbonyl fluoride	(R,T)
U034	Chloral	
U035	Chlorambucil	
U036	Chlordane, technical	
U026	Chlornaphazine	
U037	Chlorobenzene	
U039	4-Chloro-m-cresol	
U041	1-Chloro-2,3-epoxypropane	
U042	2-Chloroethyl vinyl ether	
U044	Chloroform	
U046	Chloromethyl methyl ether	
U047	beta-Chloronaphthalene	
U048	o-Chlorophenol	
U049	4-Chloro-o-toluidine, hydrochloride	
U032	Chromic acid, calcium salt	
U050	Chrysene	
U051	Creosote	
U052	Cresols	
U052	Cresylic acid	

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Hazardous Waste No.	Substance	Hazard Code
U053	Crotonaldehyde	
U055	Cumene	(I)
U246	Cyanogen bromide	
U197	1,4-Cyclohexadienedione	
U056	Cyclohexane	(I)
U057	Cyclohexanone	(I)
U130	1,3-Cyclopentadiene, 1,2,3,4,5, 5-hexachloro-	
U058	Cyclophosphamide	
U240	2,4-D, salts and esters	
U059	Daunomycin	
U060	DDD, 1,1-(2,2-dichloroethylidene)-bis-4-chlorobenzene	
U061	DDT, 1,1'-(2,2,2-trichloroethylidene)-bis-4-chlorobenzene	
U142	Decachlorooctahydro-1,3,4-metheno -2H-cyclobuta[c,d]-pentalen-2-one	
U062	Diallate	
U133	Diamine	(R,T)
U221	Diaminotoluene	
U063	Dibenz[a,h]anthracene	
U063	1,2:5,6-Dibenzanthracene	
U064	1,2:7,8-Dibenzopyrene	
U064	Dibenz[a,i]pyrene	
U066	1,2-Dibromo-3-chloropropane	
U069	Dibutyl phthalate	
U062	S-(2,3-Dichloroallyl) diisopropylthiocarbamate	
U070	o-Dichlorobenzene	
U071	m-Dichlorobenzene	
U072	p-Dichlorobenzene	
U073	3,3'-Dichlorobenzidine	
U074	1,4-Dichloro-2-butene	(I,T)
U075	Dichlorodifluoromethane	
U192	3,5-Dichloro-N-(1,1-dimethyl-2-propynyl) benzamide	
U060	Dichloro diphenyl dichloroethane	
U061	Dichloro diphenyl trichloroethane	
U078	1,1-Dichloroethylene	
U079	1,2-Dichloroethylene	
U025	Dichloroethyl ether	
U081	2,4-Dichlorophenol	
U082	2,6-Dichlorophenol	
U240	2,4-Dichlorophenoxyacetic acid, salts and esters	
U083	1,2-Dichloropropane	
U084	1,3-Dichloropropene	
U085	1,2:3,4-Diepoxybutane	(I,T)
U108	1,4-Diethylene dioxide	
U086	N,N-Diethylhydrazine	
U087	O,O-Diethyl-S-methyl-dithiophosphate	
U088	Diethyl phthalate	
U089	Diethylstilbestrol	
U148	1,2-Dihydro-3,6-pyridazinedione	
U090	Dihydrosafrole	
U091	3,3'-Dimethoxybenzidine	
U092	Dimethylamine	(I)
U093	Dimethylaminoazobenzene	
U094	7,12-Dimethylbenz[a]anthracene	
U095	3,3'-Dimethylbenzidine	
U096	alpha,alpha-Dimethylbenzylhydroperoxide	(R)
U097	Dimethylcarbamoyl chloride	

Hazardous Waste No.	Substance	Hazard Code
U098	1,1-Dimethylhydrazine	
U099	1,2-Dimethylhydrazine	
U101	2,4-Dimethylphenol	
U102	Dimethyl phthalate	
U103	Dimethyl sulfate	
U105	2,4-Dinitrotoluene	
U106	2,6-Dinitrotoluene	
U107	Di-n-octyl phthalate	
U108	1,4-Dioxane	
U109	1,2-Diphenylhydrazine	
U110	Dipropylamine	(I)
U111	Di-n-propylnitrosamine	
U001	Ethanal	(I)
U174	Ethanamine, N-ethyl-N-nitroso-	
U067	Ethane, 1,2-dibromo-	
U076	Ethane, 1,1-dichloro-	
U077	Ethane, 1,2-dichloro-	
U114	1,2-Ethanediylbiscarbamodithioic acid	
U131	Ethane, 1,1,1,2,2,2-hexachloro-	
U024	Ethane, 1,1'[methylenebis(oxy)]bis [2-chloro]-	
U003	Ethanenitrile	(I,T)
U117	Ethane, 1,1'-oxybis-	(I)
U025	Ethane, 1,1'-oxybis[2-chloro]-	
U184	Ethane, pentachloro-	
U208	Ethane, 1,1,1,2-tetrachloro-	
U209	Ethane, 1,1,2,2-tetrachloro-	
U218	Ethanethioamide	
U227	Ethane, 1,1,2-trichloro-	
U247	Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)	
U043	Ethene, chloro-	
U042	Ethene, 2-chloroethoxy-	
U078	Ethene, 1,1-dichloro-	
U079	Ethene, trans-1,2-dichloro-	
U210	Ethene, 1,1,2,2-tetrachloro-	
U173	Ethanol, 2,2'-(nitrosoimino)bis-	
U004	Ethanone, 1-phenyl-	
U006	Ethanoyl chloride	(C,R,T)
U359	2-Ethoxyethanol	
U112	Ethyl acetate	(I)
U113	Ethyl acrylate	(I)
U238	Ethyl carbamate(urethan)	
U038	Ethyl 4,4'-dichlorobenzilate	
U114	Ethylenebis(dithiocarbamic acid), salts and esters	
U067	Ethylene dibromide	
U077	Ethylene dichloride	
U359	Ethylene glycol monoethyl ether	
U115	Ethylene oxide	(I,T)
U116	Ethylene thiourea	
U117	Ethyl ether	(I)

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Hazardous Waste No.	Substance	Hazard Code
U076	Ethylidene dichloride	
U118	Ethyl methacrylate	
U119	Ethyl methanesulfonate	
U139	Ferric dextran	
U120	Fluoranthene	
U122	Formaldehyde	
U123	Formic acid	(C,T)
U124	Furan	(I)
U125	2-Furancarboxaldehyde	(I)
U147	2,5-Furandione	
U213	Furan, tetrahydro-	(I)
U125	Furfural	(I)
U124	Furfuran	(I)
U206	D-Glucopyranose, 2-deoxy-2(3-methyl-3-nitrosoureido)-	
U126	Glycidylaldehyde	
U163	Guanidine, N-nitroso-N-methyl-N'-nitro-	
U127	Hexachlorobenzene	
U128	Hexachlorobutadiene	
U129	Hexachlorocyclohexane (gamma isomer)	
U130	Hexachlorocyclopentadiene	
U131	Hexachloroethane	
U132	Hexachlorophene	
U243	Hexachloropropene	
U133	Hydrazine	(R,T)
U086	Hydrazine, 1,2-diethyl-	
U098	Hydrazine, 1,1-dimethyl-	
U099	Hydrazine, 1,2-dimethyl-	
U109	Hydrazine, 1,2-diphenyl-	
U134	Hydrofluoric acid	(C,T)
U134	Hydrogen fluoride	(C,T)
U135	Hydrogen sulfide	
U096	Hydroperoxide, 1-methyl-1-phenylethyl-	(R)
U136	Hydroxydimethylarsine oxide	
U116	2-Imidazolidinethione	
U137	Indeno[1,2,3-cd]pyrene	
U139	Iron dextran	
U140	Isobutyl alcohol	(I,T)
U141	Isosafrole	
U142	Kepone	
U143	Lasiocarpine	
U144	Lead acetate	
U145	Lead phosphate	
U146	Lead subacetate	
U129	Lindane	
U147	Maleic anhydride	
U148	Maleic hydrazide	
U149	Malononitrile	
U150	Melphalan	
U151	Mercury	
U152	Methacrylonitrile	(I,T)
U092	Methanamine, N-methyl-	(I)
U029	Methane, bromo-	
U045	Methane, chloro-	(I,T)
U046	Methane, chloromethoxy-	
U068	Methane, dibromo-	

Hazardous Waste No.	Substance	Hazard Code
U080	Methane, dichloro-	
U075	Methane, dichlorodifluoro-	
U138	Methane, iodo-	
U119	Methanesulfonic acid, ethyl ester	
U211	Methane, tetrachloro-	
U121	Methane, trichlorofluoro-	
U153	Methanethiol	(I,T)
U225	Methane, tribromo-	
U044	Methane, trichloro-	
U121	Methane, trichlorofluoro-	
U123	Methanoic acid	(C,T)
U036	4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-	
U154	Methanol	(I)
U155	Methapyrilene	
U247	Methoxychlor	
U154	Methyl alcohol	(I)
U029	Methyl bromide	
U186	1-Methylbutadiene	(I)
U045	Methyl chloride	(I,T)
U156	Methyl chlorocarbonate	(I,T)
U226	Methyl chloroform	
U157	3-Methylcholanthrene	
U158	4,4'-Methylenebis(2-chloroaniline)	
U132	2,2'-Methylenebis(3,4,6-trichlorophenol)	
U068	Methylene bromide	
U080	Methylene chloride	
U122	Methylene oxide	
U159	Methyl ethyl ketone	(I,T)
U160	Methyl ethyl ketone peroxide	(R,T)
U138	Methyl iodide	
U161	Methyl isobutyl ketone	(I)
U162	Methyl methacrylate	(I,T)
U163	N-Methyl-N'-nitro-N-nitrosoquanidine	
U161	4-Methyl-2-pentanone	(I)
U164	Methylthiouracil	
U010	Mitomycin C	
U059	5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxyl]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-	
U165	Naphthalene	
U047	Naphthalene, 2-chloro-	
U166	1,4-Naphthalenedione	
U236	2,7-Naphthalenedisulfonic acid, 3,3'-[3,3'-dimethyl-(1,1'-biphenyl)-4,4'diyl)]-bis(azo)bis(5-amino-4-hydroxy)-,tetrasodium salt	
U166	1,4 -Naphthoquinone	
U167	1-Naphthylamine	
U168	2-Naphthylamine	
U167	alpha-Naphthylamine	
U168	beta-Naphthylamine	
U026	2-Naphthylamine, N,N-bis(2-chloro-ethyl)-	

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Hazardous Waste No.	Substance	Hazard Code
U169	Nitrobenzene	(I,T)
U170	p-Nitrophenol	
U171	2-Nitropropane	(I,T)
U172	N-Nitrosodi-n-butylamine	
U173	N-Nitrosodiethanolamine	
U174	N-Nitrosodiethylamine	
U111	N-Nitrosodi-N-propylamine	
U176	N-Nitroso-N-ethylurea	
U177	N-Nitroso-N-methylurea	
U178	N-Nitroso-N-methylurethane	
U179	N-Nitrosopiperidine	
U180	N-Nitrosopyrrolidine	
U181	5-Nitro-o-toluidine	
U193	1,2-Oxathiolane, 2,2-dioxide	
U058	2H-1,3,2-Oxazaphosphorine, 2 [bis(2-chloro-ethyl)amino]-tetrahydro-, 2-oxide	
U115	Oxirane	(I,T)
U041	Oxirane, 2-(chloromethyl)-	
U182	Paraldehyde	
U183	Pentachlorobenzene	
U184	Pentachloroethane	
U185	Pentachloronitrobenzene	
U186	1,3-Pentadiene	(I)
U187	Phenacetin	
U188	Phenol	
U048	Phenol, 2-chloro-	
U039	Phenol, 4-chloro-3-methyl-	
U081	Phenol, 2,4-dichloro-	
U082	Phenol, 2,6-dichloro-	
U101	Phenol, 2,4-dimethyl-	
U170	Phenol, 4-nitro-	
U137	1,10-(1,2-Phenylene)pyrene	
U145	Phosphoric acid, lead salt	
U087	Phosphorodithioic acid, O,O-diethyl S-methyl ester	
U189	Phosphorus sulfide	(R)
U190	Phthalic anhydride	
U191	2-Picoline	
U192	Pronamide	
U194	1-Propanamine	(I,T)
U110	1-Propanamine, N-propyl-	(I)
U066	Propane, 1,2-dibromo-3-chloro-	
U149	Propanedinitrile	
U171	Propane, 2-nitro-	(I,T)
U027	Propane, 2,2'oxybis[2-chloro]-	
U193	1,3-Propane sultone	
U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)	
U126	1-Propanol, 2,3-epoxy-	
U140	1-Propanol, 2-methyl-	(I,T)
U002	2-Propanone	(I)
U007	2-Propenamide	
U084	Propene, 1,3-dichloro-	
U243	1-Propene, 1,1,2,3,3,3-hexachloro-	
U009	2-Propenenitrile	
U152	2-Propenenitrile, 2-methyl-	(I,T)
U008	2-Propenoic acid	(I)
U113	2-Propenoic acid, ethyl ester	(I)

Hazardous Waste No.	Substance	Hazard Code
U118	2-Propenoic acid, 2-methyl-, ethyl ester	
U162	2-Propenoic acid, 2-methyl-, methyl ester,	(I,T)
U194	n-Propylamine	(I,T)
U083	Propylene dichloride	
U196	Pyridine	
U155	Pyridine, 2-[(2-dimethylamino)ethyl]-2-thenylamino-	
U179	Pyridine, hexahydro-N-nitroso-	
U191	Pyridine, 2-methyl-	
U164	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	
U180	Pyrrole, tetrahydro-N-nitroso-	
U200	Reserpine	
U201	Resorcinol	
U202	Saccharin and salts	
U203	Safrole	
U204	Selenious acid	
U204	Selenium dioxide	
U205	Selenium disulfide	(R,T)
U015	L-Serine, diazoacetate (ester)	
U089	4,4'-Stilbenediol, alpha,alpha'-diethyl-	
U206	Streptozotocin	
U135	Sulfur hydride	
U103	Sulfuric acid, dimethyl ester	
U189	Sulfur phosphide	(R)
U205	Sulfur selenide	(R,T)
U207	1,2,4,5-Tetrachlorobenzene	
U208	1,1,1,2-Tetrachloroethane	
U209	1,1,2,2-Tetrachloroethane	
U210	Tetrachloroethylene	
U213	Tetrahydrofuran	(I)
U214	Thallium(I) acetate	
U215	Thallium(I) carbonate	
U216	Thallium(I) chloride	
U217	Thallium(I) nitrate	
U218	Thioacetamide	
U153	Thiomethanol	(I,T)
U219	Thiourea	
U244	Thiram	
U220	Toluene	
U221	Toluenediamine	
U223	Toluene diisocyanate	(R,T)
U328	o-Toluidine	
U353	p-Toluidine	
U222	o-Toluidine hydrochloride	
U011	1H-1,2,4-Triazol-3-amine	
U226	1,1,1-Trichloroethane	
U227	1,1,2-Trichloroethane	
U228	Trichloroethene	
U228	Trichloroethylene	
U121	Trichloromonofluoromethane	

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Hazardous Waste No.	Substance	Hazard Code
U234	sym-Trinitrobenzene	(R,T)
U182	1,3,5-Trioxane, 2,4,6-trimethyl-	
U235	Tris (2,3-dibromopropyl) phosphate	
U236	Trypan blue	
U237	Uracil, 5[bis(2-chloroethyl)amino]-	
U237	Uracil mustard	
U043	Vinyl chloride	
U248	Warfarin when present at concentrations of 0.3 percent or less	
U239	Xylene	(I)
U200	Yohimban-16-carboxylic acid, 11, 17-di-methoxy-18-[(3,4,5-trimethoxy-benzoyl)oxy]-, methyl ester,	
U249	Zinc phosphide when present at concentrations of 10 percent or less	

Subp. 5. [Unchanged.]

7045.0139 BASIS FOR LISTING HAZARDOUS WASTES.

The following table lists the constituents which caused the agency to list wastes as hazardous in part 7045.0135, subparts 2 and 3. The notation "N.A." indicates the waste is hazardous because it fails the test for the characteristics of ignitability, corrosivity, reactivity, or toxicity, and the listing of a chemical name is not applicable.

Basis for Listing Hazardous Wastes

Hazardous Waste No.	Hazardous Constituents For Which Listed
F001	Tetrachloroethylene, methylene chloride, trichloro-ethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons
F002	Tetrachloroethylene, methylene chloride, trichloro-ethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, o-dichlorobenzene, trichlorofluoromethane
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed)
F007	Cyanide (salts)
F008	Cyanide (salts)
F009	Cyanide (salts)
F010	Cyanide (salts)
F011	Cyanide (salts)
F012	Cyanide (complexed)
F019	Hexavalent chromium, cyanide (complexed)
F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra-and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
F021	Penta- and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives
F022	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans
F023	Tetra- and pentachlorodibenzo-p-dioxins; tetra-and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
F024	Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1,2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachioroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopenta-diene, hexachlorocyclohexane, benzene, chlorobenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene
F026	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans
F027	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts

Hazardous Waste No.	Substance	Hazard Code
F028	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts	
K001	Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichloro-, phenols, tetrachlorophenols, 2,4-dinitrophenol, cresosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno (1,2,3,cd)pyrene, benz(a)-anthracene, dibenz(a)anthracene, acenaphthalene	
K002	Hexavalent chromium, lead	
K003	Hexavalent chromium, lead	
K004	Hexavalent chromium	
K005	Hexavalent chromium, lead	
K006	Hexavalent chromium	
K007	Cyanide (complexed), hexavalent chromium	
K008	Hexavalent chromium	
K009	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid	
K010	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde	
K011	Acrylonitrile, acetonitrile, hydrocyanic acid	
K013	Hydrocyanic acid, acrylonitrile, acetonitrile	
K014	Acetonitrile, acrylamide	
K015	Benzyl chloride, chlorobenzene, toluene, benzotrichloride	
K016	Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene	
K017	Epichlorohydrin, chloroethers [bis (chloromethyl) ether and bis (2-chloroethyl) ethers], trichloropropane, dichloropropanols	
K018	1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene	
K019	Ethylene dichloride, 1,1,1-trichloroethane,1,1,2-trichloroethane, tetrachloroethanes(1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetra-chloride, chloroform, vinyl chloride, vinylidene chloride	
K020	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetra-chloroethane and 1,1,1,2-tetrachloroethane), trichloro-ethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride	
K021	Antimony, carbon tetrachloride, chloroform	
K022	Phenol, tars (polycyclic aromatic hydrocarbons	
K023	Phthalic anhydride, maleic anhydride	
K024	Phthalic anhydride, 1,4-naphthoquinone	
K025	Meta-dinitrobenzene, 2,4-dinitrotoluene	
K026	Paraldehyde, pyridines, 2-picoline	
K027	Toluene diisocyanate, toluene-2, 4-diamine	
K028	1,1,1-trichloroethane, vinyl chloride	
K029	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform	
K030	Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride	
K031	Arsenic	
K032	Hexachlorocyclopentadiene	
K033	Hexachlorocyclopentadiene	
K034	Hexachlorocyclopentadiene	
K035	Creosote, chrysene, naphthalene, fluoranthene, benzo-(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene	
K036	Toluene, phosphorodithioic and phosphorothioic acid esters	
K037	Toluene, phosphorodithioic and phosphorothioic acid esters	

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Hazardous Waste No.	Substance	Hazard Code
K038	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters	
K039	Phosphorodithioic and phosphorothioic acid esters	
K040	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters	
K041	Toxaphene	
K042	Hexachlorobenzene, ortho-dichlorobenzene	
K043	2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol	
K044	N.A.	
K045	N.A.	
K046	Lead	
K047	N.A.	
K048	Hexavalent chromium, lead	
K049	Hexavalent chromium, lead	
K050	Hexavalent chromium	
K051	Hexavalent chromium, lead	
K052	Lead	
K060	Cyanide, naphthalene, phenolic compounds, arsenic	
K061	Hexavalent chromium, lead, cadmium	
K062	Hexavalent chromium, lead	
K069	Hexavalent chromium, lead, cadmium	
K071	Mercury	
K073	Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloro-ethylene, 1,1,2,2-tetrachloroethane	
K083	Aniline, diphenylamine, nitrobenzene, phenylenediamine	
K084	Arsenic	
K085	Benzene, dichlorobenzenes, trichlorobenzenes, tetra-chlorobenzenes, pentachlorobenzene, hexachloro-benzene, benzyl chloride	
K086	Lead, hexavalent chromium	
K087	Phenol, naphthalene	
K093	Phthalic anhydride, maleic anhydride	
K094	Phthalic anhydride	
K095	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane	
K096	1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane	
K097	Chlordane, heptachlor	
K098	Toxaphene	
K099	2,4-dichlorophenol, 2,4,6-trichlorophenol	
K100	Hexavalent chromium, lead, cadmium	
K101	Arsenic	
K102	Arsenic	
K103	Aniline, nitrobenzene, phenylenediamine	
K104	Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine	
K105	Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol	
K106	Mercury	
K111	2,4-Dinitrotoluene	
K112	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline	
K113	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline	
K114	2,4-Toluenediamine, o-toluidine, p-toluidine	
K115	2,4-Toluenediamine	
K116	Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene	
K117	Ethylene dibromide	
K118	Ethylene dibromide	
K136	Ethylene dibromide	

045.0141 HAZARDOUS CONSTITUENTS.

Hazardous constituents are as follows:

Acetonitrile
Acetophenone
3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin and salts
2-Acetylaminofluorene
Acetyl chloride
1-Acetyl-2-thiourea
Acrolein
Acrylamide
Acrylonitrile
Aflatoxins
Aldrin
Allyl alcohol
Aluminum phosphide
4-Aminobiphenyl
6-Amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)-8a-methoxy-5-methylcarbamate azirino(2',3':3,4) pyrrolo(1,2-a)indole-4,7-dione, (ester), (Mitomycin C)
5-(Aminomethyl)-3-isoxazolol
Amitrole
Aniline
Antimony and compounds not otherwise specified in this list
Aramite
Arsenic and compounds not otherwise specified in this list
Arsenic acid
Arsenic pentoxide
Arsenic trioxide
Auramine
Azaserine
Barium and compounds not otherwise specified in this list
Barium cyanide
Benz[c]acridine
Benz[a]anthracene
Benzene
Benzene, 2-amino-1-methyl (o-Toluidine)
Benzene, 4-amino-1-methyl (p-Toluidine)
Benzenearsonic acid
Benzene, dichloromethyl-
Benzenethiol
Benzidine
Benzo[b]fluoranthene
Benzo[j]fluoranthene
Benzo[a]pyrene
p-Benzoquinone
Benzotrichloride
Benzyl chloride
Beryllium and compounds not otherwise specified in this list
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl) ether
N,N-Bis(2-chloroethyl)-2-naphthylamine

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Bis(2-chloroisopropyl) ether
Bis(chloromethyl) ether
Bis(2-ethylhexyl) phthalate
Bromoacetone
Bromomethane
4-Bromophenyl phenyl ether
Brucine
2-Butanone peroxide
Butyl benzyl phthalate
2-sec-Butyl-4,6-dinitrophenol (DNBP)
Cadmium and compounds not otherwise specified in this list
Calcium chromate
Calcium cyanide
Carbon disulfide
Carbon oxyfluoride
Chloral
Chlorambucil
Chlordane (alpha and gamma isomers)
Chlorinated benzenes not otherwise specified in this list
Chlorinated ethane not otherwise specified in this list
Chlorinated fluorocarbons not otherwise specified in this list
Chlorinated naphthalene not otherwise specified in this list
Chlorinated phenol not otherwise specified in this list
Chloroacetaldehyde
Chloroalkyl ethers not otherwise specified in this list
p-Chloroaniline
Chlorobenzene
Chlorobenzilate
2-Chloro-1,3-butadiene (chloroprene)
p-Chloro-m-cresol
1-Chloro-2,3-epoxybutane
1-Chloro-2,3-epoxypropane
2-Chloroethyl vinyl ether
Chloroform
Chloromethane
Chloromethyl methyl ether
2-Chloronaphthalene
2-Chlorophenol
1-(o-Chlorophenyl)thiourea
3-Chloropropene (allyl chloride)
3-Chloropropionitrile
Chromium and compounds not otherwise specified in this list
Chrysene
Citrus red No. 2
Coal Tars
Copper cyanide
Creosote
Cresols
Crotonaldehyde
Cyanides (soluble salts and complexes) not otherwise specified in this list
Cyanogen
Cyanogen bromide
Cyanogen chloride
Cycasin
2-Cyclohexyl-4,6-dinitrophenol
Cyclophosphamide
Daunomycin

DDD (1,1-(2,2-dichloroethylidene)-bis-4-chlorobenzene)
DDE (Ethylene, 1,1-dichloro-2,2-bis(4-chlorophenyl)-)
DDT (1,1'-(2,2,2-trichloroethylidene)-bis-4-chlorobenzene)
Diallate
Dibenz[a,h]acridine
Dibenz[a,j]acridine
Dibenz[a,h]anthracene
7H-Dibenzo[c,g]carbazole
Dibenzo[a,e]pyrene
Dibenzo[a,h]pyrene
Dibenzo[a,i]pyrene
1,2-Dibromo-3-chloropropane
1,2-Dibromoethane
Dibromomethane
Di-n-butyl phthalate
o-Dichlorobenzene
m-Dichlorobenzene
p-Dichlorobenzene
Dichlorobenzene not otherwise specified in this list
3,3'-Dichlorobenzidine
1,4-Dichloro-2-butene
Dichlorodifluoromethane
1,1-Dichloroethane
1,2-Dichloroethane
trans-1,2-Dichloroethene
Dichloroethylene not otherwise specified in this list
1,1-Dichloroethylene
chloromethane
2,4-Dichlorophenol
2,6-Dichlorophenol
2,4-Dichlorophenoxyacetic acid, salts and esters (2,4-D)
Dichlorophenylarsine
Dichloropropane not otherwise specified in this list
1,2-Dichloropropane
Dichloropropanol not otherwise specified in this list
Dichloropropene not otherwise specified in this list
1,3-Dichloropropene
Dieldrin
1,2:3,4-Diepoxybutane
Diethylarsine
N,N-Diethylhydrazine
O,O-Diethyl-S-methyl ester of phosphorodithioic acid
O,O-Diethylphosphoric acid, O-p-nitrophenyl ester
Diethyl phthalate
O,O-Diethyl-O-(2-pyrazinyl)phosphorothioate
Diethylstilbestrol
Dihydrosafrole
3,4-Dihydroxy-alpha-(methylamino)methyl benzyl alcohol
Di-isopropylfluorophosphate (DFP)
Dimethoate
3,3'-Dimethoxybenzidine

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p-Dimethylaminoazobenzene
7,12-Dimethylbenz[a]anthracene
3,3'-Dimethylbenzidine
Dimethylcarbamoyl chloride
1,1-Dimethylhydrazine
1,2-Dimethylhydrazine
3,3-Dimethyl-1-(methylthio)-2-butanone-O-[(methylamino) carbonyl] oxime
alpha, alpha-Dimethylphenethylamine
2,4-Dimethylphenol
Dimethyl phthalate
Dimethyl sulfate
Dinitrobenzene not otherwise specified in this list
4,6-Dinitro-o-cresol and salts
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
Di-n-octyl phthalate
1,4-Dioxane
Diphenylamine
1,2-Diphenylhydrazine
Di-n-propylnitrosamine
Disulfoton
2,4-Dithiobiuret
Endosulfan
Endrin and metabolites
Ethyl carbamate
Ethyl cyanide
Ethylenebisdithiocarbamic acid, salts and esters
Ethylene glycol monoethyl ether (Ethanol, 2-ethoxy)
Ethyleneimine
Ethylene oxide
Ethylenethiourea
Ethyl methacrylate
Ethyl methanesulfonate
Fluoranthene
Fluorine
2-Fluoroacetamide
Fluoroacetic acid, sodium salt
Formaldehyde
Formic acid
Glycidylaldehyde
Halomethane not otherwise specified in this list
Heptachlor
Heptachlor epoxide (alpha, beta, and gamma isomers)
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclohexane (all isomers)
Hexachlorocyclopentadiene
Hexachlorodibenzo-p-dioxins
Hexachlorodibenzofurans
Hexachloroethane
1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo, endo-dimethanonaphthalene
Hexachlorophene
Hexachloropropene
Hexaethyl tetraphosphate
Hydrazine
Hydrocyanic acid

Hydrofluoric acid
Hydrogen sulfide
Hydroxydimethylarsine oxide
Indeno(1,2,3-cd)pyrene
Iodomethane
Iron dextran
Isocyanic acid, methyl ester
Isobutyl alcohol
Isosafrole
Kepone
Lasiocarpine
Lead and compounds not otherwise specified in this list
Lead acetate
Lead phosphate
Lead subacetate
Maleic anhydride
Maleic hydrazide
Malononitrile
Melphalan
Mercury fulminate
Mercury and compounds not otherwise specified in this list
Methacrylonitrile
Methanethiol
Methapyrilene
Methomyl
Methoxychlor
2-Methylaziridine
3-Methylcholanthrene
Methyl chlorocarbonate
4,4'-Methylene-bis-(2-chloroaniline)
Methyl ethyl ketone (MEK)
Methyl hydrazine
2-Methyllactonitrile
Methyl methacrylate
Methyl methanesulfonate
2-Methyl-2-(methylthio)propionaldehyde-o-(methylcarbonyl) oxime
N-Methyl-N'-nitro-N-nitrosoguanidine
Methyl parathion
Methylthiouracil
Mustard gas
Naphthalene
1,4-Naphthoquinone
1-Naphthylamine
2-Naphthylamine
1-Naphthyl-2-thiourea
Nickel and compounds not otherwise specified in this list
Nickel carbonyl
Nickel cyanide
Nicotine and salts
Nitric oxide
p-Nitroaniline

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Nitrobenzene
Nitrogen dioxide
Nitrogen mustard and hydrochloride salt
Nitrogen mustard N-oxide and hydrochloride salt
Nitroglycerine
4-Nitrophenol
2-Nitropropane (Propane, 2-nitro)
4-Nitroquinoline-1-oxide
Nitrosamine not otherwise specified in this list
N-Nitrosodi-N-butylamine
N-Nitrosodiethanolamine
N-Nitrosodiethylamine
N-Nitrosodimethylamine
N-Nitroso-N-ethylurea
N-Nitrosomethylethylamine
N-Nitroso-N-methylurea
N-Nitroso-N-methylurethane
N-Nitrosomethylvinylamine
N-Nitrosomorpholine
N-Nitrosonornicotine
N-Nitrosopiperidine
N-Nitrosopyrrolidine
N-Nitrososarcosine
5-Nitro-o-toluidine
Octamethylpyrophosphoramide
Osmium tetroxide
7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
Paraldehyde
Parathion
Pentachlorobenzene
Pentachlorodibenzo-p-dioxins
Pentachlorodibenzofurans
Pentachloroethane
Pentachloronitrobenzene (PCNB)
Pentachlorophenol
Phenacetin
Phenol
Phenylenediamine
Phenylmercury acetate
N-Phenylthiourea
Phosgene
Phosphine
Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl]ester (Phorate)
Phosphorothioic acid, O,O-dimethyl O-[p-(dimethylamino-sulfonyl)phenyl] ester
Phthalic acid esters not otherwise specified in this list
Phthalic anhydride
2-Picoline
Polychlorinated biphenyl not otherwise specified in this list
Potassium cyanide
Potassium silver cyanide
Pronamide
1,3-Propane sultone
n-Propylamine
Propylthiouracil
2-Propyn-1-ol
Pyridine
Reserpine

Recorcinol
Saccharin and salts
Safrole
Selenious acid
Selenium and compounds not otherwise specified in this list
Selenium sulfide
Selenourea
Silver and compounds not otherwise specified in this list
Silver cyanide
Sodium cyanide
Streptozotocin
Strontium sulfide
Strychnine and salts
1,2,4,5-Tetrachlorobenzene
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
Tetrachlorodibenzo-p-dioxins not otherwise specified in this list
Tetrachlorodibenzofurans
Tetrachloroethane not otherwise specified in this list
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrachloroethylene
Tetrachloromethane
2,3,4,6-Tetrachlorophenol
Tetraethyldithiopyrophosphate
Tetraethyl lead
Tetraethylpyrophosphate
Tetranitromethane
Thallium and compounds not otherwise specified in this list
Thallic oxide
Thallium (I) acetate
Thallium (I) carbonate
Thallium (I) chloride
Thallium (I) nitrate
Thallium selenide
Thallium (I) sulfate
Thioacetamide
Thiosemicarbazide
Thiourea
Thiuram
Toluene
Toluenediamine, N.O.S.
2,4-Toluenediamine
2,6-Toluenediamine
3,4-Toluenediamine
o-Toluidine hydrochloride
Tolylene diisocyanate
Toxaphene
Tribromomethane
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
1,1,2-Trichloroethane

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Trichloroethene
Trichloromethanethiol
Trichloromonofluoromethane
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)
2,4,5-Trichlorophenoxypropionic acid (2,4,5-TP) (Silvex)
Trichloropropane not otherwise specified in this list
1,2,3-Trichloropropane
0,0,0-Triethyl phosphorothioate
sym-Trinitrobenzene
Tris(1-azridinyl)phosphine sulfide
Tris(2,3-dibromopropyl) phosphate
Trypan blue
Uracil mustard
Vanadic acid, ammonium salt
Vanadium pentoxide
Vinyl chloride
Zinc cyanide
Zinc phosphide

7045.0214 EVALUATION OF WASTES.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Wastes generated by treatment, storage, or disposal.** Wastes generated by treatment, storage, or disposal of hazardous waste are as follows:

A. [Unchanged.]

B. Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from ~~the~~ iron and steel industry~~, standard industrial classification codes 331 and 332~~ facilities which are classified as number 331 or 332 facilities under the Office of Management and Budget Standard Industrial Classification Manual, is not a hazardous waste unless it exhibits one or more characteristics of hazardous waste under part 7045.0131.

C. [Unchanged.]

7045.0261 MANIFEST DOCUMENT; GENERAL REQUIREMENTS.

Subpart 1. **When required.** A generator who transports or offers for transportation hazardous waste for off-site treatment, storage, or disposal must prepare a manifest before transporting the waste off-site. Generators shall use manifests in accordance with the requirements of items A to C and shall complete the manifest in accordance with the instructions on the manifest.

A. For shipments from either in-state or out-of-state to a facility located in Minnesota, the generator shall use a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~ and, if necessary, continuation sheets as provided in subpart 10.

B. For shipments from Minnesota to a facility located in a state (consignment state) that neither supplies nor requires the use of a manifest which is specific for that state, the generator shall use a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~ and, if necessary, continuation sheets as provided in subpart 10.

C. [Unchanged.]

Subp. 2. to 6. [Unchanged.]

Subp. 7. **Manifest information.** The Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~ is based on the Uniform National Manifest ~~(EPA Form 8700-22)~~ that is required under United States Department of Transportation and United States Environmental Protection Agency regulations, as contained in Code of Federal Regulations, title 40, part 262, and Code of Federal Regulations, title 49, part 172. Manifest information requirements include those required by United States Department of Transportation and United States Environmental Protection Agency regulations and consist of the numbered items on the manifest set forth in the Appendix to Code of Federal Regulations, title 40, part 262. Additional state information requirements consist of the telephone number of the designated facility and the hazardous waste numbers specified in parts 7045.0100 to 7045.0141 for each hazardous waste specified on the manifest. Manifests must include the information specified in this subpart and in the instructions on the manifest.

Subp. 8. **Availability of manifests.** Minnesota manifests ~~(Minnesota Form PQ-00371-01)~~ are available from the agency or the documents section of the Minnesota Department of Administration, 117 University Avenue, St. Paul, Minnesota 55155.

Subp. 9. **Number of copies.** The manifest must 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, another copy to be returned to the generator by the facility, and the required copies to be returned to the director, pursuant to parts 7045.0265; 7045.0474, subpart 2, item D; and 7045.0580, subpart 2, item D, and any additional copies required by the generator's or designated facility's state, if other than Minnesota. Copies to be returned to the director shall be sent to: Minnesota Pollution Control Agency, Solid and Hazardous Waste Division, ~~1935 West County Road B2, Roseville~~ 520 Lafayette Road, Saint Paul, Minnesota ~~55113~~ 55155. Attention: HWIMS.

Subp. 10. **Continuation sheets.** A generator using a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~ shall use a continuation sheet to the manifest if more than two transporters are to be used to transport the waste. A generator using a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~ shall use either a continuation sheet to the manifest or an additional manifest which is completed in its entirety, if more space is required for the United States Department of Transportation description and related information on the manifest. Any United States Environmental Protection Agency approved continuation sheet may be used if it is completed and copies are distributed in accordance with this part and United States Environmental Protection Agency regulations as contained in Code of Federal Regulations, title 40, part 262. A generator using a continuation sheet to a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~ shall enter the preprinted State Manifest Document Number of the manifest into the appropriate space on the continuation sheet, and shall attach the sheet to the manifest. Continuation sheets are not provided by the state. For shipments not requiring a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~, generators shall use continuation sheets in accordance with applicable consignment state requirements.

7045.0275 PROPER HAZARDOUS WASTE MANAGEMENT.

Subpart 1. [Unchanged.]

Subp. 2. **Spills; duty to report.** Any person in control of a hazardous waste that spills, leaks, or otherwise escapes from a container, tank, or other containment system, including its associated piping, shall immediately notify the agency if the hazardous waste may cause pollution of the air, land resources, or waters of the state. The person shall use the agency's 24-hour telephone number, (612) ~~296-7373~~ 296-8100.

Subp. 3. [Unchanged.]

7045.0296 ANNUAL REPORTING.

Subpart 1. [Unchanged.]

Subp. 2. **Required information.** The annual report must contain the following information related for each hazardous waste or wastes produced during the preceding calendar year:

A. to E. [Unchanged.]

F. a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated;

G. a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent the information is available before 1984; and

H. the certification signed by the generator or authorized representative.

Subp. 3. to 5. [Unchanged.]

7045.0302 INTERNATIONAL SHIPMENTS; SPECIAL CONDITIONS.

Subpart 1. [Unchanged.]

Subp. 2. **Procedures.** When shipping hazardous waste outside the state of Minnesota to a foreign country the generator must:

A. notify the administrator of the Environmental Protection Agency and the director in writing four weeks before the initial shipment of hazardous waste to each country in each calendar year. The waste must be identified by its hazardous waste identification number and its United States Department of Transportation shipping description and the name and address of the foreign consignee must be included in this notice. These notices must be sent to: "Office of International Activities (A-106)," United States Environmental Protection Agency, Washington, D.C. 20460; and Minnesota Pollution Control Agency, Division of Solid and Hazardous Waste, ~~1935 West County Road B2, Roseville~~ 520 Lafayette Road, Saint Paul, Minnesota ~~55113~~ 55155;

B. and C. [Unchanged.]

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D. use a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~.

Subp. 3. [Unchanged.]

Subp. 4. **Manifest.** When importing hazardous waste, a person must use a Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~ and meet all requirements of parts 7045.0261 and 7045.0265 for the manifest except that:

A. and B. [Unchanged.]

Subp. 5. **Annual report.** Any person exporting hazardous waste identified or listed under this chapter shall file with the agency and the United States Environmental Protection Agency at the Office of International Activities (A-106) United States Environmental Protection Agency, Washington, D.C. 20460 no later than March 1 of each year, a report summarizing the types, quantities, frequency, and ultimate destination of all the hazardous waste exported during the previous calendar year.

7045.0395 HAZARDOUS WASTE DISCHARGES.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Notification.** An air, rail, highway, or water transporter who has discharged hazardous waste must:

A. Immediately notify the agency if the hazardous waste may cause pollution of the air, land, or waters of the state. The person shall use the agency's 24-hour telephone notification service (612) ~~296-7373~~ 296-8100;

B. to D. [Unchanged.]

Subp. 4. and 5. [Unchanged.]

7045.0458 WASTE ANALYSIS REQUIREMENTS.

Subpart 1. [Unchanged.]

Subp. 2. **Waste analysis plan.** The owner or operator shall develop and follow a written waste analysis plan which describes the procedures which he or she will carry out to comply with subpart 1. The owner or operator shall keep this plan at the facility. The plan must specify:

A. to E. [Unchanged.]

F. where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in parts 7045.0456; 7045.0538, subpart 10; and 7045.0542, subpart 2; and

G. [Unchanged.]

7045.0460 LOCATION STANDARDS.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Underground mines and caves.** The placement of any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, or underground mine or cave is prohibited.

7045.0468 EMERGENCY PROCEDURES.

Subpart 1. to 4. [Unchanged.]

Subp. 5. **Report on released material.** 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 findings must be reported as provided in items A and B.

A. [Unchanged.]

B. The agency's emergency response unit must be immediately notified at the 24-hour telephone number, (612) ~~296-7373~~ 296-8100, and notification must also be given to either the governmental official designated as the on-scene coordinator for that geographical area in the applicable regional contingency plan under Code of Federal Regulations, title 40, part 1510 (1983) or to the National Response Center using their 24-hour toll free telephone number, (800) 424-8802. The report must include:

(1) to (6) [Unchanged.]

Subp. 6. **Duty to notify.** The hazardous waste coordinator shall immediately notify the agency if the released hazardous waste may cause pollution of the air, land resources, or waters of the state. The emergency coordinator shall use the agency's 24-hour telephone number (612) ~~296-7373~~ 296-8100.

Subp. 7. and 8. [Unchanged.]

7045.0476 MANIFEST DISCREPANCIES.

Subpart 1. [Unchanged.]

Subp. 2. **Definition of a discrepancy.** Manifest discrepancies are defined as significant or minor as follows:

A. [Unchanged.]

B. Minor discrepancies are all other discrepancies including, but not limited to, manifests other than the required Minnesota manifest ~~(Minnesota Form PQ-00371-01)~~, incomplete manifests or shipping papers, manifests or shipping papers which are inconsistent, and a container or portable tank containing hazardous waste which is not properly labeled.

Subp. 3. [Unchanged.]

7045.0478 OPERATING RECORD.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Record information.** All of the following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

A. to D. [Unchanged.]

E. Records and results of waste analysis performed as specified in parts 7045.0456, 7045.0458, 7045.0538, subpart 10, and 7045.0542, subpart 2.

F. to J. [Unchanged.]

K. A certification that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that the permittee generates to the degree determined by the permittee to be economically practicable; and the method of treatment, storage, or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment.

L. The certification signed by the owner or operator of the facility or an authorized representative.

7045.0482 REQUIRED REPORTS.

Subpart 1. [Unchanged.]

Subp. 2. **Annual report.** The owner or operator shall prepare and submit a single copy of an annual report to the director no later than March 1 for the preceding calendar year. The report form and instructions to be used may be obtained from the director. The annual report must cover facility activities during the previous calendar year and must include the following information:

A. to E. [Unchanged.]

F. the most recent closure cost estimate under part 7045.0502 and, for disposal facilities, the most recent post-closure cost estimates under part 7045.0506; ~~and~~

G. for generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of the waste generated;

H. for generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years before 1984; and

I. the certification signed by the owner or operator of the facility or ~~his~~ an authorized representative.

Subp. 3. and 4. [Unchanged.]

7045.0484 GROUND WATER PROTECTION.

Subpart 1. **Scope.** This part applies as follows:

A. Except as provided in item B, the requirements of ~~subparts 2 to 14 apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in surface impoundments, waste piles, land treatment units, or landfills. The owner or operator shall satisfy the requirements of subparts 2 to 14 for all wastes or waste constituents contained in a waste management unit at a facility that receives hazardous waste after the effective date of subparts 2 to 14. This type of waste management unit is hereinafter referred to as a "regulated unit." Owners and operators of closed facilities that have treated, stored, or disposed of hazardous waste in surface impoundments, waste piles, land treatment units, or landfills between January 26, 1983, and July 16, 1984 shall comply with Code of Federal Regulations, title 40 (1983). A waste or a waste constituent migrating beyond the waste management~~

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~~area under subpart 9 is assumed to originate from a regulated unit unless the director finds that the waste or waste constituent originated from another source~~ this part apply to owners or operators of facilities that treat, store, or dispose of hazardous waste. The owner or operator must comply with the requirements in subitems (1) to (3) for all wastes or waste constituents contained in solid or hazardous waste management units at the facility regardless of the time the waste was placed in such units:

(1) all solid waste management units must comply with part 7045.0485;

(2) a surface impoundment, waste pile, land treatment unit, or landfill that receives hazardous waste after July 26, 1982, is a regulated unit and must comply with the requirements of subparts 2 to 14 for detecting, characterizing, and responding to releases; and

(3) the financial responsibility requirements of part 7045.0485 apply to regulated units.

B. The owner or operator is not subject to subparts 2 to 14 if the criteria in subitem (1), (2), or (3) are met:

(1) ~~he or she~~ the owner or operator is exempted under part 7045.0450;

(2) ~~he or she~~ the owner or operator designs and operates a waste pile in compliance with part 7045.0534, subpart 1 ~~or 5~~; or

(3) the director finds, under part 7045.0536, subpart 8, item D, that the treatment zone of a land treatment unit that qualifies as a regulated unit does not contain levels of hazardous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of part 7045.0536, subpart 6, has not shown a statistically significant increase in hazardous constituents below the treatment zone during the operating life of the unit. An exemption can only relieve an owner or operator of responsibility to meet the requirements of subparts 2 to 14 during the post-closure care period.

C. and D. [Unchanged.]

Subp. 2. to 11. [Unchanged.]

Subp. 12. **Detection monitoring program.** An owner or operator required to establish a detection monitoring program under this part shall perform the following:

A. to D. [Unchanged.]

E. The owner or operator of ~~single lined~~ waste piles, land treatment units that have detected a significant increase in hazardous constituents or monitoring parameters below the treatment zone, and double lined surface impoundments~~, waste piles,~~ and landfills where liquids have been detected in the leak detection system, shall comply with subitems (1) and (2):

(1) and (2) [Unchanged.]

F. to K. [Unchanged.]

Subp. 13. and 14. [Unchanged.]

7045.0485 CORRECTIVE ACTION FOR SOLID AND HAZARDOUS WASTE MANAGEMENT UNITS.

Subpart 1. **Applicability.** The owner or operator of a facility seeking a permit for the treatment, storage, or disposal of hazardous waste must institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any hazardous or solid waste management unit at the facility, regardless of the time at which waste was placed in the unit.

Subp. 2. **Conditions.** Corrective action as required under subpart 1 must be specified in the permit. The permit must contain schedules of compliance for corrective action and assurances of financial responsibility for completing corrective action. Assurance of financial responsibility must be provided in addition to the applicable requirements of parts 7045.0498 to 7045.0524.

7045.0538 LANDFILLS.

Subpart 1. to 9. [Unchanged.]

Subp. 10. **Special requirements for liquid waste.** Special requirements for liquid waste are as follows:

A. ~~Bulk or noncontainerized liquid waste or waste containing free liquids must not be placed in a landfill unless, before disposal, the liquid waste or waste containing free liquids is treated or stabilized, chemically or physically, such as by mixing with an absorbent solid, so that free liquids are no longer present~~ The placement of bulk or noncontainerized liquid hazardous waste or waste containing free liquids, whether or not absorbents have been added, is prohibited.

B. [Unchanged.]

C. The presence or absence of free liquids in containerized or bulk waste must be demonstrated using the Paint Filter

Liquids Test, Method 9095 as described in Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, EPA publication number SW 846.

Subp. 11. to 13. [Unchanged.]

7045.0552 FACILITIES GOVERNED BY INTERIM STATUS.

Subpart 1. [Unchanged.]

Subp. 1a. **Applicability for owners and operators of facilities not regulated as hazardous waste facilities by federal regulation.** Owners and operators of hazardous waste facilities that are not federally regulated as hazardous waste facilities that are, for example, regulated as facilities by state rule only, are subject to the applicable requirements of parts 7045.0552 to 7045.0642 on the effective date of any rules that make the facility subject to regulation. The facility shall submit a Part B application for a hazardous waste facility permit to the director within one year of the effective date of any rules that first make the facility subject to the requirement to obtain a hazardous waste facility permit.

Subp. 2. to 4. [Unchanged.]

7045.0556 GENERAL FACILITY STANDARDS.

Subpart 1. to 6. [Unchanged.]

Subp. 7. **Prohibition.** Placement of a hazardous waste in a salt dome, salt bed formation, underground mine, or cave is prohibited.

7045.0564 WASTE ANALYSIS REQUIREMENTS.

Subpart 1. [Unchanged.]

Subp. 2. **Waste analysis plan.** The owner or operator shall develop and follow a written waste analysis plan which describes the procedures ~~which he~~ the owner or operator will carry out to comply with subpart 1. ~~He or she~~ The owner or operator shall keep this plan at the facility. The plan must specify:

A. to E. [Unchanged.]

F. Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in parts 7045.0628, subpart 3; 7045.0630, subpart 4; 7045.0632, subpart 3; 7045.0634, subpart 3; 7045.0638, subpart 7; 7045.0640, subpart 2; and 7045.0642, subpart 3.

G. [Unchanged.]

7045.0584 OPERATING RECORD.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Record information.** The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

A. to D. [Unchanged.]

E. Records and results of waste analysis and trial tests performed as specified in parts 7045.0564; 7045.0628, subpart 3; 7045.0630, subpart 4; 7045.0632, subpart 3; 7045.0634, subpart 3; 7045.0638, subpart 7; 7045.0640, subpart 2; and 7045.0642, subpart 3.

F. to I. [Unchanged.]

7045.0588 REQUIRED REPORTS.

Subpart 1. [Unchanged.]

Subp. 2. **Annual report.** The owner or operator shall prepare and submit a single copy of an annual report to the director, no later than March 1 for the preceding calendar year. The report form and instructions to be used may be obtained from the director. The annual report must cover facility activities during the previous calendar year and must include the following information:

A. to F. [Unchanged.]

G. the most recent closure cost estimate under part 7045.0610 and for disposal facilities, the most recent post-closure cost estimate under part 7045.0614; ~~and~~

KEY: PROPOSED RULES SECTION — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material." ADOPTED RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language.

H. for generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of the waste generated;

I. for generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984; and

J. the certification signed by the owner or operator of the facility or ~~the~~ an authorized representative.

Subp. 3. and 4. [Unchanged.]

7045.0638 LANDFILLS.

Subpart 1. [Unchanged.]

Subp. 2. **General operating requirements.** The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

The owner or operator shall design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

Collecting and holding facilities, such as tanks or basins, associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

The owner or operator of a landfill containing hazardous waste which is subject to dispersal by wind shall cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled. As required by part 7045.0564, the waste analysis plan must include analyses needed to comply with subparts 5 ~~and~~, 6, and 7. As required by part 7045.0584, the owner or operator shall place the results of these analyses in the operating record of the facility.

Subp. 3. to 6. [Unchanged.]

Subp. 7. **Special requirements for liquid waste.** Bulk or noncontainerized liquid waste or waste containing free liquids, whether or not absorbents have been added, must not be placed in a landfill.

A. A container holding liquid waste or waste containing free liquids must not be placed in a landfill, unless:

~~A.~~ (1) all free-standing liquid has been removed by decanting, or other methods; has been mixed with absorbent or solidified so that free-standing liquid is no longer observed; or has been otherwise eliminated;

~~B.~~ (2) the container is a laboratory pack as defined in subpart 9 and is disposed of in accordance with subpart 9;

~~C.~~ (3) the container is designed to hold liquids or free liquids for a use other than storage, such as a battery or capacitor; or

~~D.~~ (4) the container is very small, such as an ampule.

B. The presence or absence of free liquids in containerized or bulk waste must be demonstrated using the Paint Filter Liquids Test, Method 9095 as described in Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, publication number SW 846.

Subp. 8. and 9. [Unchanged.]

REPEALER. Minnesota Rules, part 7045.0534, subparts 4 and 5 are repealed.

3. PLANS AND SPECIFICATIONS

Copies of bidding documents for preparation of bids will be available for inspection at the offices of Associated Architects and Engineers, Inc., 241 South Cleveland Avenue, St. Paul, Minnesota 55105, at the Builders Exchanges in St. Paul, Minneapolis, St. Cloud, and Duluth, Minnesota, and at the F. W. Dodge Corporation Plan Room, Edina, Minnesota. In addition, upon request to the Architect, interested contractors will each be given one complete set of bidding documents for a deposit of $25.00. Sets requested to be mailed will be mailed "collect."

4. CONDITIONS OF BIDS

The Minnesota Historical Society reserves the right to accept or reject any or all bids and to waive any irregularities therein. No bid may be withdrawn within thirty (30) days after the scheduled closing time for the receipt of bids.

SUPREME COURT DECISIONS

Decisions Filed Friday 5 December 1986

Compiled by Wayne O. Tschimperle, Clerk

C2-86-756 Sandra Kurowski v. Kittson Memorial Hospital and St. Paul Companies, Relators. Workers' Compensation Court of Appeals.

Rehabilitation review panels do not have jurisdiction to determine primary liability or medical causation.

There are insufficient findings on medical causation and, thus, this case is remanded to a workers' compensation judge for such findings.

Affirmed in part and reversed in part. Yetka, J.

C4-86-516 State of Minnesota v. Jeffrey L. Anderson, Appellant. Hennepin County.

The trial court did not err in admitting *Spriegl* evidence.

The convictions of aggravated robbery and first-degree (felony) murder are amply sustained by the evidence.

Affirmed. Simonett, J.

C0-85-2091 Garold Eugene Hoven, et al. v. Rice Memorial Hospital and E. Miller, petitioners, Appellants, Gordon J. Bos, C. Knapper and J. E. Krause, petitioners, Appellants. Court of Appeals.

Claimant, in a suit alleging medical negligence on the part of a hospital and surgical team, is not entitled to have the case submitted to the jury on a *res ipsa loquitur* theory when he has failed to establish the injuries sustained would not normally occur in the absence of negligence of the defendants.

Reversed and remanded for reinstatement of the trial court judgment. Kelley, J.

C9-79-50289 In the Matter of the Application for the Discipline of Irving Shaw, an Attorney at Law of the State of Minnesota. Supreme Court.

This court adopts the referee's recommendation that respondent be indefinitely suspended from the practice of law; permission to apply for reinstatement is delayed for 1 year.

Indefinitely suspended. Per Curiam.

ERRATA

Minnesota Pollution Control Agency

Proposed Permanent Rules Relating to Hazardous Waste Codification

Notice of Intent to Adopt a Rule Without a Public Hearing

The Notice that appeared in Volume 11, Number 21, page 916 (11 S.R. 916) pertaining to the public comment period for amendments to the hazardous waste rules is hereby modified to extend the closing date of the comment period from December 23, 1986 to December 24, 1986.

CERTIFICATE OF AGENCY'S RESOLUTION ADOPTING RULES

I, Thomas J. Kalitowski, do hereby certify that I am the Executive Director of the Minnesota Pollution Control Agency, an agency duly authorized under the laws of the State of Minnesota, and that the following is a true, complete, and correct copy of a resolution adopted at a meeting of the Minnesota Pollution Control Agency duly and properly called and held on the 27th day of January, 1987, that a quorum was present at said meeting, that a majority of those present voted for the resolution and that said resolution will be set forth in the minutes of said meeting and has not been rescinded or modified:

BE IT RESOLVED, that the Minnesota Pollution Control Agency (Agency) withdraws its proposal to adopt amendments to Minn. Rules pt. 7045.0120 item A;

BE IT FURTHER RESOLVED, that the MPCA hereby approves and adopts the amendments to the MPCA's hazardous waste rules governing the management, storage, treatment, and disposal of hazardous waste, Minn. Rules Pts. 7045.0020, 7045.0075, 7045.0080, 7045.0102, 7045.0125, 7045.0135, 7045.0139, 7045.0141, 7045.0214, 7045.0261, 7045.0275, 7045.0296, 7045.0302, 7045.0395, 7045.0458, 7045.0460, 7045.0468, 7045.0476, 7045.0478, 7045.0482, 7045.0484, 7045.0485, 7045.0534, 7045.0538, 7045.0552, 7045.0556, 7045.0564, 7045.0584, 7045.0588, 7045.0638, 7001.0150, 7001.0520, 7001.0590, 7001.0600, 7001.0620, 7001.0650, 7001.0712 and 7001.0720, pursuant to the authority vested in the MPCA by Minn. Stat. § 116.07, subd. 4 (1986).

BE IT FURTHER RESOLVED, that prior to publishing the rules as adopted in the State Register, the Executive Director is authorized to make any form changes in the rules that the Revisor of Statutes requires the MPCA to make in order to obtain the revisor's certification as required by Minn. Stat. § 14.07, subd. 2 (1986).

BE IT FURTHER RESOLVED, that the MPCA adopts the attached Findings of Fact and Conclusions and attached Order Adopting Rule Amendments and that the Chairperson and the Executive Director are hereby authorized to execute the above-mentioned documents on behalf of the MPCA.

IN WITNESS WHEREOF, I have hereunto subscribed my name this 2nd day of March, 1987.

Thomas Kalitowski

THOMAS J. KALITOWSKI
Executive Director

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed
Amendment of Rules Governing
the Management, Storage,
Treatment, and Disposal of
Hazardous Waste, Minn. Rules Pts.
7045.0020, 7045.0075, 7045,0080,
7045.0102, 7045.0125, 7045.0135,
7045.0139, 7045.0141, 7045.0214,
7045.0261, 7045.0275, 7045.0296,
7045.0302, 7045.0395, 7045.0458,
7045.0460, 7045.0468, 7045.0476,
7045.0478, 7045.0482, 7045.0484,
7045.0485, 7045.0534, 7045.0538,
7045.0552, 7045.0556, 7045.0564,
7045.0584, 7045.0588, 7045.0638,
7001.0150, 7001.0520, 7001.0590,
7001.0600, 7001.0620, 7001.0650,
7001.0712 and 7001.0720

FINDINGS OF FACT
AND CONCLUSIONS

The above-entitled matter came on for decision before the Minnesota Pollution Control Agency (MPCA) on the 27th day of January 1987. After affording all interested persons the opportunity to present written and oral data, statements and arguments to the MPCA, in accordance with statutory requirements regarding the adoption of noncontroversial rules, after considering the Statement of Need and Reasonableness, after considering all of the evidence adduced upon the records, files and proceedings herein, the MPCA, being fully advised in the premises, hereby adopts the following Findings of Fact and Conclusions.

FINDINGS OF FACT

1. The MPCA published its notice of intent to adopt the above-captioned rule amendments, together with the proposed rule amendments, in the State

Register on November 24, 1986 (11 SR 916).

2. On November 20, 1986, the MPCA gave the same notice by mail to all persons who have registered their names with the MPCA pursuant to Minn. Stat. § 14.14 (1986).

3. The notice of the MPCA's intent to amend the rules afforded all interested persons 30 days to submit data and views on the proposed rules. The notice was in all respects in compliance with the requirements of Minn. Stat. § 14.22 (1986).

4. The MPCA prepared a Statement of Need and Reasonableness and made it available to the public upon the date of mailing of the notice of intent to adopt the rule amendments.

5. The 30-day comment period, as set out in the notice, expired on December 24, 1986.

6. During the comment period, the MPCA received one written comment. This comment, dated December 22, 1986 requests that the proposal to amend Minn. Rules pt. 7045.0120, item A be withdrawn. The basis for this comment is the concern that additional consideration should be given to regulatory requirements relating to the collection of household hazardous waste. The MPCA finds this request to be reasonable and hereby withdraws its proposal to amend Minn. Rules pt. 7045.0120 A.

7. The MPCA amends the Statement of Need and Reasonableness by deleting the discussion of the proposed amendment to Minn. Rules pt. 7045.0120, item A and adopting the remaining portions of the Statement of Need and Reasonableness, in its entirety, as the factual basis for the amendments to the rules. The MPCA

hereby incorporates the amended Statement of Need and Reasonableness into these findings.

CONCLUSIONS

1. The MPCA duly acquired and has jurisdiction over this proceeding.

2. The MPCA published and served due, timely and adequate notice of the intent to adopt amendments to the rules without a public hearing.

3. All relevant legal and procedural requirements of statute and rule have been complied with.

MINNESOTA POLLUTION CONTROL AGENCY

Duane A. Dahlberg

Duane Dahlberg
Chairperson

for Barbara Lindsay Sims

Thomas J. Kalitowski
Executive Director

Dated: January 27, 1987

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed
Amendment of Rules Governing
the Management, Storage,
Treatment, and Disposal of
Hazardous Waste, Minn. Rules Pts.
7045.0020, 7045.0075, 7045,0080,
7045.0102, 7045.0125, 7045.0135,
7045.0139, 7045.0141, 7045.0214,
7045.0261, 7045.0275, 7045.0296,
7045.0302, 7045.0395, 7045.0458,
7045.0460, 7045.0468, 7045.0476,
7045.0478, 7045.0482, 7045.0484,
7045.0485, 7045.0534, 7045.0538,
7045.0552, 7045.0556, 7045.0564,
7045.0584, 7045.0588, 7045.0638,
7001.0150, 7001.0520, 7001.0590,
7001.0600, 7001.0620, 7001.0650,
7001.0712 and 7001.0720

ORDER ADOPTING RULES

Notice of the Minnesota Pollution Control Agency's (MPCA's) intent to adopt the above-entitled rule amendments without a public hearing was published in the State Register on November 24, 1986 (11 SR 916) and was sent by mail to all persons on the list maintained by the MPCA pursuant to Minn. Stat. § 14.14 (1986) on November 20, 1986. After affording interested and affected persons an opportunity to submit comments for 30 days after Notice; having received one comment during the comment period requesting withdrawal of the proposed amendments to Minn. Rules pt. 7045.0120, item A to allow for further study in light of possible changes to Minnesota's household hazardous waste program; and after determining the need for and reasonableness of the above-captioned rule amendments,

NOW THEREFORE, IT IS ORDERED, that the attached amendments to Minn. Rules pts. 7045.0020, 7045.0075, 7045,0080 7045.0102, 7045.0125, 7045.0135, 7045.0139,

7045.0141 7045.0214, 7045.0261, 7045.0275, 7045.0296, 7045.0302, 7045.0395, 7045.0458, 7045.0460, 7045.0468, 7045.0476, 7045.0478, 7045.0482, 7045.0484, 7045.0485, 7045.0534, 7045.0538, 7045.0552, 7045.0556, 7045.0564, 7045.0584, 7045.0588, 7045.0638, 7001.0150, 7001.0520, 7001.0590, 7001.0600, 7001.0620, 7001.0650, 7001.0712 and 7001.0720, governing the management, storage, treatment and disposal of hazardous waste, are adopted as proposed pursuant to the authority vested in the MPCA by Minn. Stat. § 116.07, subd. 4 (1986) except that the proposed amendment to Minn. Rules pt. 7045.0120, item A is hereby withdrawn.

Duane A Dahlberg

Duane Dahlberg
Chairperson

for Barbara Lindsay Sims

Thomas J. Kalitowski
Executive Director

Dated: January 27, 1987

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed
Amendment of Rules Governing
the Management, Storage,
Treatment, and Disposal of
Hazardous Waste, Minn. Rules Pts.
7045.0020, 7045.0075, 7045,0080,
7045.0102, 7045.0125, 7045.0135,
7045.0139, 7045.0141, 7045.0214,
7045.0261, 7045.0275, 7045.0296,
7045.0302, 7045.0395, 7045.0458,
7045.0460, 7045.0468, 7045.0476,
7045.0478, 7045.0482, 7045.0484,
7045.0485, 7045.0534, 7045.0538,
7045.0552, 7045.0556, 7045.0564,
7045.0584, 7045.0588, 7045.0638,
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7001.0712 and 7001.0720

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NOW THEREFORE, IT IS ORDERED, that the attached amendments to Minn. Rules pts. 7045.0020, 7045.0075, 7045,0080 7045.0102, 7045.0125, 7045.0135, 7045.0139,

7045.0141 7045.0214, 7045.0261, 7045.0275, 7045.0296, 7045.0302, 7045.0395, 7045.0458, 7045.0460, 7045.0468, 7045.0476, 7045.0478, 7045.0482, 7045.0484, 7045.0485, 7045.0534, 7045.0538, 7045.0552, 7045.0556, 7045.0564, 7045.0584, 7045.0588, 7045.0638, 7001.0150, 7001.0520, 7001.0590, 7001.0600, 7001.0620, 7001.0650, 7001.0712 and 7001.0720, governing the management, storage, treatment and disposal of hazardous waste, are adopted as proposed pursuant to the authority vested in the MPCA by Minn. Stat. § 116.07, subd. 4 (1986) except that the proposed amendment to Minn. Rules pt. 7045.0120, item A is hereby withdrawn.

Duane A. Dahlberg

Duane Dahlberg
Chairperson

for Barbara Lindsay Sims

Thomas J. Kalitowski
Executive Director

Dated: January 27, 1987

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rules
Governing the Management, Storage,
Treatment, and Disposal of Hazardous
Waste, Minn. Rules Pts. 7045.0020,
7045.0075, 7045.0080, 7045.0102,
7045.0125, 7045.0135, 7045.0139,
7045.0141, 7045.0214, 7045.0261,
7045.0275, 7045.0296, 7045.0302,
7045.0395, 7045.0458, 7045.0460,
7045.0468, 7045.0476, 7045.0478,
7045.0482, 7045.0484, 7045.0485,
7045.0534, 7045.0538, 7045.0552,
7045.0556, 7045.0564, 7045.0584,
7045.0588, 7045.0638, 7001.0150,
7001.0520, 7001.0590, 7001.0600,
7001.0620, 7001.0650, 7001.0712
and 7001.0720

DECLARATION OF COUNSEL

I, Mamie S. Segall, Special Assistant Attorney General, do hereby declare that I have examined the above-captioned rules and the supporting rulemaking record, and that, based on my examination, the Administrative Procedure Act and Minnesota Rules ch. 2010 have been followed. For Attorney General billing purposes, the four-digit docket client code is 0696.

Mamie S. Segall

MAMIE S. SEGALL
Special Assistant
Attorney General

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rules Governing the Management, Storage, Treatment, and Disposal of Hazardous Waste, Minn. Rules Pts. 7045.0020, 7045.0075, 7045.0080, 7045.0102, 7045.0125, 7045.0135, 7045.0139, 7045.0141, 7045.0214, 7045.0261, 7045.0275, 7045.0296, 7045.0302, 7045.0395, 7045.0458, 7045.0460, 7045.0468, 7045.0476, 7045.0478, 7045.0482, 7045.0484, 7045.0485, 7045.0534, 7045.0538, 7045.0552, 7045.0556, 7045.0564, 7045.0584, 7045.0588, 7045.0638, 7001.0150, 7001.0520, 7001.0590, 7001.0600, 7001.0620, 7001.0650, 7001.0712 and 7001.0720

AFFIDAVIT REGARDING COMMENTS RECEIVED PURSUANT TO NOTICE OF INTENT TO SOLICIT OUTSIDE OPINION

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Carol Nankivel, being duly sworn on oath deposes and says:

1. That she is the person responsible for receiving comments in place of the person named in the Notice of Intent to Solicit Outside Opinion (10 S.R. 657, September 16, 1985) as the person to receive comments on the Agency's intent to adopt rules concerning the above-entitled subject.

2. That the comment period set forth in the notice terminated at 4:30 p.m. on October 10, 1985.

3. That during the public comment period no comments were received by the Agency.

Carol R Nankivel

Subscribed and sworn to before me
this 12 day of March, 1987.

Mary Ann Hammer
Notary Public

MARY ANN HAMMER
NOTARY PUBLIC-MINNESOTA
RAMSEY COUNTY
MY COMMISSION EXPIRES DECEMBER 10, 1991

Need: Revisor's Certificate on Proposed Rule - Coming

Notice of Intent:

We have 2 notice of Intents (#7 + #10)
#7 was published in the State Register
#10 was mailed to persons on mailing list.

The ~~dif~~ only difference is, #10 lists 6 areas the proposed rule relates to, + #7 does not.

~~#~~ Rule

p1 lines 12-13 "and any conditions the agency determines to be necessary."

p2 line 31 "reasonably ascertainable"

p3 line 4 "reasonably foreseeable"

p4 line 15 "reasonably ascertainable"

~~ascertainable~~

p4 line 19 "reasonably foreseeable"

p6 lines 15-21 (the Director has been given grants of authority)

SF-00006-03

STATE OF MINNESOTA

DEPARTMENT MN POLLUTION CONTROL AGENCY

Office Memorandum

RECEIVED
DEC 22 1986
MPCA, SOLID & HAZ
WASTE DIVISION

TO: Gordon Meyer
Chief, Program Development Section
Solid and Hazardous Waste Division

DATE: December 19,1986

FROM: Steve Lee, Supervisor SJL 12-19-86
Hazardous Waste Disclosure Unit
Hazardous Waste Section

PHONE: 297-1779

SUBJECT: HAZARDOUS WASTE RULE 7045.0120 EXEMPT WASTES

We have recently become aware of a conflict between the proposed Rule Revision for 7045.0120 Exempt Wastes, and the legislation on household hazardous waste which we will be introducing this year. Briefly, the proposed household hazardous waste statute states that collected household hazardous waste must be managed as a hazardous waste, while the new hazardous waste rule would exempt such wastes. We believe that this issue needs to be rethought, and the language carefully crafted. The December 23 deadline for comments will not allow sufficient time to adequately address these concerns. Therefore, we request that you temporarily withdraw the section 7045.0120 from final codification.