

1 Pollution Control Agency

2

3 Adopted Permanent Rules Relating to Hazardous Waste Codification

4

5 Rules as Adopted

6 7001.0150 TERMS AND CONDITIONS OF PERMITS.

7 Subpart 1. [Unchanged.]

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

14 A. and B. [Unchanged.]

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

21 (1) and (2) [Unchanged.]

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

30 (4) if applicable, reports required by part  
31 7001.0720, subpart 2, item E; and

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

34 D. [Unchanged.]

35 Subp. 3. [Unchanged.]

APPROVED IN THE  
REVISION OF STATUTES  
OFFICE BY:

DSN

## 1 7001.0520 PERMIT REQUIREMENTS.

2 Subpart 1. and 2. [Unchanged.]

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

8 A. [Unchanged.]

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

11 (1) and (2) [Unchanged.]

12 (3) complies with parts 7045.0452, subpart 2;  
13 7045.0474; 7045.0476; 7045.0478, subparts 1, 2, and 3, items A  
14 to C; and 7045.0482, subparts 1, 2, and 3; and for National  
15 Pollutant Discharge Elimination System permits issued after  
16 November 8, 1984, part 7045.0485; and

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

21 C. and D. [Unchanged.]

22 Subp. 4. [Unchanged.]

23 7001.0590 PART B INFORMATION REQUIREMENTS FOR SURFACE  
24 IMPOUNDMENTS.

25 Except as otherwise provided in part 7045.0532, subpart 1,  
26 if the applicant proposes to store, treat, or dispose of  
27 hazardous waste in surface impoundment facilities, the applicant  
28 shall submit detailed plans and specifications accompanied by an  
29 engineering report which collectively includes the following  
30 information in addition to the information required by part  
31 7001.0560:

32 A. to K. [Unchanged.]

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

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

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

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

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

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

16 7001.0600 PART B INFORMATION REQUIREMENTS FOR WASTE PILES.

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

22 A. [Unchanged.]

23 B. If an exemption is sought to parts 7045.0534,  
24 subparts 2, items A and B, and 3; and 7045.0484 as provided by  
25 part 7045.0534, subpart 1, an explanation of compliance with  
26 part 7045.0534, subpart 1, items A to D or detailed plans and an  
27 engineering report describing how the requirements of part  
28 7045.0534, subpart 1, items A to D will be met.

29 C. to L. [Unchanged.]

30 M. A description of how each waste pile, including  
31 the liners and appurtenances for control of run-on and run-off  
32 will be inspected in order to meet the requirements of part  
33 7045.0534, subpart 6. This information shall be included in the  
34 inspection plan required by part 7001.0560, item E.

35 7001.0620 PART B INFORMATION REQUIREMENTS FOR LANDFILLS.

1 Except as otherwise provided by part 7045.0538, subpart 1,  
2 if the applicant proposes to dispose of hazardous waste in a  
3 landfill, the applicant shall furnish the information designated  
4 in items A to L in addition to the information required by part  
5 7001.0560:

6 A. to G. [Unchanged.]

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

13 I. and J. [Unchanged.]

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

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

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

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

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

31 7001.0650 INTERIM STATUS.

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

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

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

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

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

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

23 Subp. 2. to 6. [Unchanged.]

24 Subp. 7. **Termination of interim status.** Interim status  
25 terminates automatically when the agency has taken final  
26 administrative action on the permit application or when  
27 terminated by Code of Federal Regulations, title 40, section  
28 270.73(c). The following constitute justification for the  
29 director to commence proceedings to terminate interim status:

30 A. and B. [Unchanged.]

31 7001.0712 RESEARCH, DEVELOPMENT, AND DEMONSTRATION PERMITS.

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

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

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

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

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

21 The permit shall contain all applicable special and general  
22 conditions in parts 7001.0150 and 7001.0720 and conditions  
23 concerning financial responsibility under parts 7045.0498 to  
24 7045.0524, closure, and remedial action. The permit shall  
25 provide for the immediate termination of all operations at the  
26 facility at any time upon receipt of notification from the  
27 director that termination of operations is necessary to protect  
28 human health or the environment.

29 7001.0720 TERMS AND CONDITIONS OF HAZARDOUS WASTE FACILITY  
30 PERMITS.

31 Subpart 1. Term of permit. Except as provided in part  
32 7001.0712, subpart 3, a hazardous waste facility permit is  
33 effective for a fixed term not to exceed five years.

34 Subp. 2. [Unchanged.]

35 7045.0020 DEFINITIONS.

1 Subpart 1. to 55. [Unchanged.]

2 Subp. 55a. **Marketer.** "Marketer" means a person who, for  
3 the purpose of burning for energy recovery, processes, blends,  
4 or distributes waste oil, used oil, or hazardous waste.

5 "Marketer" includes a generator who processes, distributes, or  
6 blends such fuel directly to a person who burns it.

7 Subp. 56. to 102. [Unchanged.]

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

10 Subp. 103. to 108. [Unchanged.]

11 7045.0075 PETITIONS.

12 Subpart 1. [Unchanged.]

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

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

1 B. and C. [Unchanged.]

2 D. If the waste is listed with codes "I," "C," "R,"  
3 or "E" in part 7045.0135, the petitioner must show that the  
4 waste does not exhibit a relevant characteristic defined in part  
5 7045.0131 using any applicable methods prescribed in part  
6 7045.0131. The petitioner also must show that the waste does  
7 not exhibit any of the other characteristics in part 7045.0131  
8 using any applicable method prescribed in part 7045.0131. In  
9 determining whether to exclude a waste as requested by the  
10 petition, the agency must consider the factors considered at the  
11 time the waste was listed and, if the agency has reason to  
12 believe that other factors, including additional constituents,  
13 could also cause the waste to be hazardous, the agency must also  
14 consider these other factors. In order to exclude a waste as  
15 requested by the petition, the agency must determine that no  
16 factor exists that warrants retaining the classification of the  
17 waste as hazardous. A waste which is so excluded, however, may  
18 still be a hazardous waste by operation of part 7045.0131.

19 E. If the waste is listed with code "T" in part  
20 7045.0135, subitems (1) to (4) apply.

21 (1) The petitioner must demonstrate that the  
22 waste:

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

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

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



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

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

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

11 F. If the waste is listed with the code "H" in part  
12 7045.0135, the petitioner must demonstrate that the waste does  
13 not meet the criterion of part 7045.0129, subpart 1, item B.

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

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

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

28 G. [Unchanged.]

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

1 justifies a partial exclusion.

2 Subp. 3. and 4. [Unchanged.]

3 7045.0080 DATA AVAILABILITY.

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

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

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

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

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

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

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

1 appropriately examine a voluminous amount of separate and  
 2 distinct records which are demanded in a single request; or  
 3 (3) there is a need for consultation with another  
 4 agency having a substantial interest in the determination of the  
 5 request.

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

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

16 7045.0102 MIXTURES OF HAZARDOUS AND NONHAZARDOUS WASTES.

17 Except as provided in parts 7045.0125, subpart 10 and  
 18 7045.0665, subpart 5, mixtures of hazardous and nonhazardous  
 19 wastes are as follows:

20 A. to G. [Unchanged.]

21 7045.0120 EXEMPT WASTES.

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

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

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

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

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

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

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

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

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

25 ~~(b)-the-owner-or-operator-complies-with-the~~  
 26 ~~following-requirements-for-hazardous-waste-generators:--parts~~  
 27 ~~7045.0221, 7045.0261, 7045.0265, 7045.0270, 7045.0275,~~  
 28 ~~7045.0292, subpart 1, items B to G, 7045.0294, and 7045.0296;~~

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

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

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

1 ~~(4)-The-owner-or-operator-evaluates-the-ash-in~~  
 2 ~~accordance-with-the-procedures-in-part-7045-02147-subpart-2,-and~~  
 3 ~~the-solid-waste-permit-conditions-~~

4 B. to P. [Unchanged.]

5 7045.0125 MANAGEMENT OF WASTE BY USE, REUSE, RECYCLING, AND  
 6 RECLAMATION.

7 Subpart 1. to 9. [Unchanged.]

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

12 A. and B. [Unchanged.]

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

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

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

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

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

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

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

1 10, item D.

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

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

6 (2) the contaminants are removed; and

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

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

16 (1) contaminants are removed; and

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

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

28 7045.0135 LISTS OF HAZARDOUS WASTES.

29 Subpart 1. [Unchanged.]

30 Subp. 2. Hazardous wastes from nonspecific sources.

31 Hazardous wastes from nonspecific sources are listed as follows:

32 Hazardous 33 Waste No.	Hazardous Waste	Hazard Code
35 Generic:		
36 F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons;	(T)

- 1 all spent solvent mixtures/blends used in degreasing  
 2 containing, before use, a total of ten percent or more  
 3 by volume of one or more of the above halogenated  
 4 solvents or those solvents listed in F002, F004,  
 5 and F005; and still bottoms from the recovery of  
 6 these spent solvents and spent solvent mixtures.
- 7 F002 The following spent halogenated solvents: (T)  
 8 tetrachloroethylene, methylene chloride,  
 9 trichloroethylene, 1,1,1-trichloroethane,  
 10 chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane,  
 11 orthodichlorobenzene, trichlorofluoromethane,  
 12 and 1,1,2-trichloroethane; all spent  
 13 solvent mixtures/blends containing, before  
 14 use, a total of ten percent or more by volume of one  
 15 or more of the above halogenated solvents or those  
 16 solvents listed in F001, F004, and F005; and  
 17 the still bottoms from the recovery of these  
 18 spent solvents and spent solvent mixtures.
- 19 F003 The following spent nonhalogenated solvents: (I)  
 20 xylene, acetone, ethyl acetate, ethyl benzene,  
 21 ethyl ether, methyl isobutyl ketone, n-butyl  
 22 alcohol, cyclohexanone, and methanol;  
 23 all spent solvent mixtures/blends containing,  
 24 before use, only the above spent nonhalogenated  
 25 solvents; and all spent solvent mixtures/blends,  
 26 containing, before use, one or more of the above  
 27 nonhalogenated solvents and a total  
 28 of ten percent or more by volume  
 29 of one or more of those solvents listed in  
 30 F001, F002, F004, and F005; and the  
 31 still bottoms from the recovery of these spent  
 32 solvents and spent solvent mixtures.
- 33 F004 The following spent nonhalogenated solvents: (T)  
 34 cresols and cresylic acid, and nitrobenzene;  
 35 all spent solvent mixtures/blends containing,  
 36 before use, a total of ten percent or more by  
 37 volume of one or more of the above nonhalogenated  
 38 solvents or those solvents listed in F001, F002,  
 39 and F005; and the still bottoms from the recovery  
 40 of these spent solvents and spent solvent mixtures.
- 41 F005 The following spent nonhalogenated solvents: (I,T)  
 42 toluene, methyl ethyl ketone, carbon disulfide,  
 43 isobutanol, pyridine, benzene, 2-ethoxyethanol,  
 44 and 2-nitropropane; all spent solvent  
 45 mixtures/blends containing, before use, a total  
 46 of ten percent or more by volume of one or more  
 47 of the above nonhalogenated solvents or those  
 48 solvents listed in F001, F002, and F004; and the  
 49 still bottoms from the recovery of these spent  
 50 solvents and spent solvent mixtures.
- 51 F006 Wastewater treatment sludges from electroplating (T)  
 52 operations except from the following processes:  
 53 (1) sulfuric acid anodizing of aluminum,  
 54 (2) tin plating on carbon steel, (3) zinc plating  
 55 (segregated basis) on carbon steel, (4) aluminum  
 56 or zinc-aluminum plating on carbon steel,  
 57 (5) cleaning/stripping associated with tin, zinc  
 58 and aluminum plating on carbon steel, and  
 59 (6) chemical etching and milling of aluminum
- 60 F007 Spent cyanide plating bath solutions from (R,T)  
 61 electroplating operations
- 62 F008 Plating bath sludges from the bottom of plating (R,T)  
 63 baths from electroplating operations where  
 64 cyanides are used in the process
- 65 F009 Spent stripping and cleaning bath solutions (R,T)  
 66 from electroplating operations where cyanides  
 67 are used in the process
- 68 F010 Quenching bath residues from oil baths from (R,T)  
 69 metal heat-treating operations where cyanides  
 70 are used in the process
- 71 F011 Spent cyanide solutions from salt bath (R,T)

- 1 pot cleaning from metal heat-treating operations
- 2 F012 Quenching wastewater treatment sludges from (T)
- 3 metal heat-treating operations where cyanides
- 4 are used in the process
- 5 F019 Wastewater treatment sludges from the chemical (T)
- 6 conversion coating of aluminum
- 7 F020 Wastes, except wastewater and spent carbon from (H)
- 8 hydrogen chloride purification, from the production
- 9 or manufacturing use as a reactant, chemical
- 10 intermediate, or component in a formulating process
- 11 of tri- or tetrachlorophenol, or of intermediates used
- 12 to produce their pesticide derivatives. This
- 13 listing does not include wastes from the production
- 14 of hexachlorophene from highly purified 2,4,5-
- 15 tri-chlorophenol.
- 16 F021 Wastes, except wastewater and spent carbon from (H)
- 17 hydrogen chloride purification, from the production
- 18 or manufacturing use as a reactant, chemical
- 19 intermediate, or component in a formulating process
- 20 of pentachlorophenol, or of intermediates used to
- 21 produce its derivatives.
- 22 F022 Wastes, except wastewater and spent carbon from (H)
- 23 hydrogen chloride purification, from the
- 24 manufacturing use as a reactant, chemical
- 25 intermediate, or component in a formulating process
- 26 of tetra-, penta-, or hexachlorobenzenes under
- 27 alkaline conditions.
- 28 F023 Wastes, except wastewater and spent carbon from (H)
- 29 hydrogen chloride purification, from the production
- 30 of materials on equipment previously used for the
- 31 production or manufacturing use as a reactant,
- 32 chemical intermediate, or component in a formulating
- 33 process of tri- and tetrachlorophenols. This
- 34 listing does not include wastes from equipment used
- 35 only for the production or use of hexachlorophene
- 36 from highly purified 2,4,5-trichlorophenol.
- 37 F024 Wastes, including but not limited to, distillation (T)
- 38 residues, heavy ends, tars, and reactor cleanout wastes
- 39 from the production of chlorinated aliphatic
- 40 hydrocarbons, having carbon content from one to five,
- 41 utilizing free radical catalyzed processes. This does
- 42 not include light ends, spent filters and filter aids,
- 43 spent dessicants, wastewater, wastewater treatment
- 44 sludges, and spent catalysts.
- 45 F026 Wastes, except wastewater and spent carbon from (H)
- 46 hydrogen chloride purification, from the production
- 47 of materials on equipment previously used for the
- 48 manufacturing use as a reactant, chemical
- 49 intermediate, or component in a formulating process
- 50 of tetra-, penta-, or hexachlorobenzene under
- 51 alkaline conditions.
- 52 F027 Discarded unused formulations containing tri-, (H)
- 53 tetra-, or pentachlorophenol or discarded unused
- 54 formulations containing compounds derived from these
- 55 chlorophenols. This listing does not include
- 56 formulations containing hexachlorophene synthesized
- 57 from prepurified 2,4,5-trichlorophenol as the
- 58 sole component.
- 59 F028 Residues resulting from the incineration or thermal (T)
- 60 treatment of soil contaminated with hazardous
- 61 waste Nos. F020, F021, F022, F023, F026, and F027.

62  
63 Subp. 3. Hazardous waste from specific sources. Hazardous

64 wastes from specific sources are listed as follows:

65 Industry and		
66 Hazardous		Hazard
67 Waste No.	Hazardous Waste	Code
68		
69 Wood Preservation:		



1	K001	Bottom sediment sludge from the treatment of	(T)
2		wastewaters from wood preserving processes that	
3		use creosote and/or pentachlorophenol.	
4			
5		Inorganic Pigments:	
6	K002	Wastewater treatment sludge from the production	(T)
7		of chrome yellow and orange pigments	
8	K003	Wastewater treatment sludge from the production	(T)
9		of molybdate orange pigments	
10	K004	Wastewater treatment sludge from the production	(T)
11		of zinc yellow pigments	
12	K005	Wastewater treatment sludge from the production	(T)
13		of chrome green pigments	
14	K006	Wastewater treatment sludge from the production of	(T)
15		chrome oxide green pigments, anhydrous and hydrated	
16	K007	Wastewater treatment sludge from the production	(T)
17		of iron blue pigments	
18	K008	Oven residue from the production of chrome oxide	(T)
19		green pigments	
20			
21		Organic Chemicals:	
22	K009	Distillation bottoms from the production of	(T)
23		acetaldehyde from ethylene	
24	K010	Distillation side cuts from the production of	(T)
25		acetaldehyde from ethylene	
26	K011	Bottom stream from the wastewater stripper in	(R,T)
27		the production of acrylonitrile	
28	K013	Bottom stream from the acetonitrile column	(R,T)
29		in the production of acrylonitrile	
30	K014	Bottoms from the acetonitrile purification	(T)
31		column in the production of acrylonitrile	
32	K015	Still bottoms from the distillation of	(T)
33		benzyl chloride	
34	K016	Heavy ends or distillation residues from the	(T)
35		production of carbon tetrachloride	
36	K017	Heavy ends (still bottoms) from the purification	(T)
37		column in the production of epichlorohydrin	
38	K018	Heavy ends from the fractionation column in	(T)
39		ethyl chloride production	
40	K019	Heavy ends from the distillation of ethylene	(T)
41		dichloride in ethylene dichloride production	
42	K020	Heavy ends from the distillation of vinyl	(T)
43		chloride in vinyl chloride monomer production	
44	K021	Aqueous spent antimony catalyst waste from	(T)
45		fluoromethanes production	
46	K022	Distillation bottom tars from the production of	(T)
47		phenol/acetone from cumene	
48	K023	Distillation light ends from the production	(T)
49		of phthalic anhydride from naphthalene	
50	K024	Distillation bottoms from the production	(T)
51		of phthalic anhydride from naphthalene	
52	K093	Distillation light ends from the production	(T)
53		of phthalic anhydride from ortho-xylene	
54	K094	Distillation bottoms from the production	(T)
55		of phthalic anhydride from ortho-xylene	
56	K025	Distillation bottoms from the production	(T)
57		of nitrobenzene by the nitration of benzene	
58	K026	Stripping still tails from the production	(T)
59		of methyl ethyl pyridines	
60	K027	Centrifuge and distillation residues from	(R,T)
61		toluene diisocyanate production	
62	K028	Spent catalyst from the hydrochlorinator	(T)
63		reactor in the production of 1,1,1-trichloroethane	
64	K029	Waste from the product steam stripper in the	(T)
65		production of 1,1,1-trichloroethane	
66	K095	Distillation bottoms from the production	(T)
67		of 1,1,1-trichloroethane	
68	K096	Heavy ends from the heavy ends column from	(T)
69		the production of 1,1,1-trichloroethane	
70	K030	Column bottoms or heavy ends from the	(T)
71		combined production of trichloroethylene and	

1		perchloroethylene	
2	K083	Distillation bottoms from aniline production	(T)
3	K103	Process residues from aniline extraction	(T)
4		from the production of aniline	
5	K104	Combined wastewater streams generated from	(T)
6		nitrobenzene/aniline production	
7	K085	Distillation or fractionation column bottoms	(T)
8		from the production of chlorobenzenes	
9	K105	Separated aqueous stream from the reactor product	(T)
10		washing step in the production of chlorobenzenes	
11	K111	Product washwaters from the production of	(C,T)
12		dinitrotoluene via nitration of toluene	
13	K112	Reaction by-product water from the drying	(T)
14		column in the production of toluenediamine via	
15		hydrogenation of dinitrotoluene	
16	K113	Condensed liquid light ends from the	(T)
17		purification of toluenediamine in the	
18		production of toluenediamine via	
19		hydrogenation of dinitrotoluene	
20	K114	Vicinals from the purification of	(T)
21		toluenediamine in the production of	
22		toluenediamine via hydrogenation	
23		of dinitrotoluene	
24	K115	Heavy ends from the purification of	(T)
25		toluenediamine in the production of	
26		toluenediamine via hydrogenation	
27		of dinitrotoluene	
28	K116	Organic condensate from the solvent	(T)
29		recovery column in the production of	
30		toluene diisocyanate via phosgenation	
31		of toluenediamine	
32	K117	Wastewater from the reactor vent gas	(T)
33		scrubber in the production of ethylene	
34		dibromide via bromination of ethene	
35	K118	Spent adsorbent solids from purification	(T)
36		of ethylene dibromide in the production of	
37		ethylene dibromide via bromination of ethene	
38	K136	Still bottoms from the purification of	(T)
39		ethylene dibromide in the production of	
40		ethylene dibromide via bromination of ethene	
41			
42		Inorganic Chemicals:	
43	K071	Brine purification muds from the mercury cell	(T)
44		process in chlorine production, when separately	
45		pre-purified brine is not used	
46	K073	Chlorinated hydrocarbon waste from the	(T)
47		purification step of the diaphragm cell process	
48		using graphite anodes in chlorine production	
49	K106	Wastewater treatment sludge from the mercury	(T)
50		cell process in chlorine production	
51			
52		Pesticides:	
53	K031	By-product salts generated in the production	(T)
54		of monosodium methanearsonate (MSMA) and	
55		cacodylic acid	
56	K032	Wastewater treatment sludge from the	(T)
57		production of chlordane	
58	K033	Wastewater and scrub water from the chlorination	(T)
59		of cyclo-pentadiene in the production of chlordane	
60	K034	Filter solids from the filtration of hexachloro-	(T)
61		cyclopentadiene in the production of chlordane	
62	K097	Vacuum stripper discharge from the chlordane	(T)
63		chlorinator in the production of chlordane	
64	K035	Wastewater treatment sludges generated in	(T)
65		the production of creosote	
66	K036	Still bottoms from toluene reclamation	(T)
67		distillation in the production of disulfoton	
68	K037	Wastewater treatment sludges from the	(T)
69		production of disulfoton	
70	K038	Wastewater from the washing and stripping	(T)
71		of phorate production	

1	K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate	(T)
2			
3	K040	Wastewater treatment sludge from the production of phorate	(T)
4			
5	K041	Wastewater treatment sludge from the production of toxaphene	(T)
6			
7	K098	Untreated process wastewater from the production of toxaphene	(T)
8			
9	K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	(T)
10			
11			
12	K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
13			
14	K099	Untreated wastewater from the production of 2,4-D	(T)
15			
16	Explosives:		
17	K044	Wastewater treatment sludges from the manufacturing and processing of explosives	(R)
18			
19	K045	Spent carbon from the treatment of wastewater containing explosives	(R)
20			
21	K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds	(T)
22			
23			
24	K047	Pink/red water from operations involving 2,4,6-trinitro-toluene (TNT)	(R)
25			
26			
27	Petroleum Refining:		
28	K048	Dissolved air flotation (DAF) float from the petroleum refining industry	(T)
29			
30	K049	Slop oil emulsion solids from the petroleum refining industry	(T)
31			
32	K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
33			
34	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)
35			
36			
37			
38			
39			
40	K052	Tank bottoms (leaded) from the petroleum refinery industry	(T)
41			
42			
43	Iron and Steel:		
44	K061	Emission control dust or sludge from the primary production of steel in electric furnaces	(T)
45			
46	K062	Spent pickle liquor generated by steel finishing operations of plants that produce iron or steel	(C,T)
47			
48			
49			
50	Secondary Lead:		
51	K069	Emission control dust or sludge from secondary lead smelting	(T)
52			
53	K100	Waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting	(T)
54			
55			
56			
57	Veterinary Pharmaceuticals:		
58	K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
59			
60			
61	K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
62			
63			
64			
65	K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
66			
67			
68			
69			
70	Ink Formulation:		
71	K086	Solvent washes and sludges, caustic washes and	(T)

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

- 5  
 6 Coke:  
 7 K060 Ammonia still lime sludge from coking operations (T)  
 8 K087 Decanter tank tar sludge from coking operations (T)  
 9

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

19 A. to D. [Unchanged.]

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

31 Hazardous Wastes from Commercial Chemical Products

32 Hazardous		33 Hazard
33 Waste No.	34 Substance	35 Code
36 P023	Acetaldehyde, chloro-	
37 P002	Acetamide, N-(aminothioxomethyl)-	
38 P057	Acetamide, 2-fluoro-	
39 P058	Acetic acid, fluoro-, sodium salt	
40 P066	Acetimidic acid, N-[(methylcarbamoyl)oxy]	
41 P001	thio-, methyl ester	
42	3-(alpha-Acetylbenzyl)-4-hydroxycoumarin	
43	and salts when present at concentrations	
44	greater than 0.3 percent	
45 P002	1-Acetyl-2-thiourea	
46 P003	Acrolein	
47 P070	Aldicarb	
48 P004	Aldrin	
49 P005	Allyl alcohol	
	P006 Aluminum phosphide	(R,T)

1	P007	5-(Aminomethyl)-3-isoxazolol	
2	P008	4-Aminopyridine	
3	P009	Ammonium picrate	(R)
4	P119	Ammonium vanadate	
5	P010	Arsenic acid	
6	P012	Arsenic (III) oxide	
7	P011	Arsenic (V) oxide	
8	P011	Arsenic pentoxide	
9	P012	Arsenic trioxide	
10	P038	Arsine, diethyl-	
11	P054	Aziridine	
12	P013	Barium cyanide	
13	P024	Benzenamine, 4-chloro-	
14	P077	Benzenamine, 4-nitro-	
15	P028	Benzene, (chloromethyl)-	
16	P042	1,2-Benzenediol, 4-[1-hydroxy-2-(methyl-amino)ethyl]-	
17	P014	Benzenethiol	
18	P028	Benzyl chloride	
19	P015	Beryllium dust	
20	P016	Bis(chloromethyl) ether	
21	P017	Bromoacetone	
22	P018	Brucine	
23	P021	Calcium cyanide	
24	P123	Camphene, octachloro-	
25	P103	Carbamimidoseleonic acid	
26	P022	Carbon bisulfide	
27	P022	Carbon disulfide	
28	P095	Carbonyl chloride	
29	P033	Chlorine cyanide	
30	P023	Chloroacetaldehyde	
31	P024	p-Chloroaniline	
32	P026	1-(o-Chlorophenyl)thiourea	
33	P027	3-Chloropropionitrile	
34	P029	Copper cyanides	
35	P030	Cyanides (soluble cyanide salts), not elsewhere specified	
36			
37	P031	Cyanogen	
38	P033	Cyanogen chloride	
39	P036	Dichlorophenylarsine	
40	P037	Dieldrin	
41	P038	Diethylarsine	
42	P039	O,O-Diethyl S-[2-(ethylthio)ethyl] phosphorodithioate	
43	P041	Diethyl-p-nitrophenyl phosphate	
44	P040	O,O-Diethyl O-pyrazinyl phosphorothioate	
45	P043	Diisopropyl fluorophosphate	
46	P044	Dimethoate	
47	P045	3,3-Dimethyl-1-(methylthio)-2-butanone, O- [(methylamino)carbonyl] oxime	
48			
49	P071	O,O-Dimethyl O-p-nitrophenyl phosphorothioate	
50	P082	Dimethylnitrosamine	
51	P046	alpha, alpha-Dimethylphenethylamine	
52	P047	4,6-Dinitro-o-cresol and salts	
53	P034	4,6-Dinitro-o-cyclohexylphenol	
54	P048	2,4-Dinitrophenol	
55	P020	Dinoseb	
56	P085	Diphosphoramidate, octamethyl-	
57	P039	Disulfoton	
58	P049	2,4-Dithiobiuret	
59	P109	Dithiopyrophosphoric acid, tetraethyl ester	
60	P050	Endosulfan	
61	P088	Endothall	
62	P051	Endrin	
63	P042	Epinephrine	
64	P046	Ethanamine, 1,1-dimethyl-2-phenyl-	
65	P084	Ethenamine, N-methyl-N-nitroso-	
66	P101	Ethyl cyanide	
67	P054	Ethylenimine	
68	P097	Famphur	
69	P056	Fluorine	
70	P057	Fluoroacetamide	
71	P058	Fluoroacetic acid, sodium salt	

1	P065	Fulminic acid, mercury(II) salt	(R,T)
2	P059	Heptachlor	
3	P051	1,2,3,4,10,10-Hexachloro-6,7-epoxy-	
4		1,4,4a,5,6,7,8,8a-octahydro-endo,endo-	
5		1,4:5,8-dimethanonaphthalene	
6	P037	1,2,3,4,10,10-Hexachloro-6,7-epoxy-	
7		1,4,4a,5,6,7,8,8a-octahydro-endo,exo-	
8		1,4:5,8-dimethanonaphthalene	
9	P060	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-	
10		1,4:5,8-endo,endo-dimethanonaphthalene	
11	P004	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-	
12		1,4:5,8-endo,exo-dimethanonaphthalene	
13	P060	Hexachlorohexahydro-endo,endo-dimethanonaphthalene	
14	P062	Hexaethyl tetraphosphate	
15	P116	Hydrazinecarbothioamide	
16	P068	Hydrazine, methyl-	
17	P063	Hydrocyanic acid	
18	P063	Hydrogen cyanide	
19	P096	Hydrogen phosphide	
20	P064	Isocyanic acid, methyl ester	
21	P007	3(2H)-Isoxazolone, 5-(aminomethyl)-	
22	P092	Mercury, (acetato-O)phenyl-	
23	P065	Mercury fulminate	(R,T)
24	P016	Methane, oxybis(chloro)-	
25	P112	Methane, tetranitro-	(R)
26	P118	Methanethiol, trichloro-	
27	P059	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-hep-	
28		tachloro-3a,4,7,7a-tetrahydro-	
29	P066	Methomyl	
30	P067	2-Methylaziridine	
31	P068	Methyl hydrazine	
32	P064	Methyl isocyanate	
33	P069	2-Methylactonitrile	
34	P071	Methyl parathion	
35	P072	alpha-Naphthylthiourea	
36	P073	Nickel carbonyl	
37	P074	Nickel cyanide	
38	P074	Nickel(II) cyanide	
39	P073	Nickel tetracarbonyl	
40	P075	Nicotine and salts	
41	P076	Nitric oxide	
42	P077	p-Nitroaniline	
43	P078	Nitrogen dioxide	
44	P076	Nitrogen(II) oxide	
45	P078	Nitrogen(IV) oxide	
46	P081	Nitroglycerine	(R)
47	P082	N-Nitrosodimethylamine	
48	P084	N-Nitrosomethylvinylamine	
49	P050	5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-	
50		hexachloro, cyclic sulfite	
51	P085	Octamethylpyrophosphoramidate	
52	P087	Osmium oxide	
53	P087	Osmium tetroxide	
54	P088	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	
55	P089	Parathion	
56	P034	Phenol, 2-cyclohexyl-4,6-dinitro-	
57	P048	Phenol, 2,4-dinitro-	
58	P047	Phenol, 2,4-dinitro-6-methyl-, and salts	
59	P020	Phenol, 2,4-dinitro-6-(1-methylpropyl)-	
60	P009	Phenol, 2,4,6-trinitro-, ammonium salt	(R)
61	P036	Phenyl dichloroarsine	
62	P092	Phenylmercuric acetate	
63	P093	N-Phenylthiourea	
64	P094	Phorate	
65	P095	Phosgene	
66	P096	Phosphine	
67	P041	Phosphoric acid, diethyl p-nitrophenyl ester	
68	P044	Phosphorodithioic acid, O,O-dimethyl S-	
69		[2-(methylamino)-2-oxoethyl]ester	
70	P043	Phosphorofluoridic acid, bis(1-methylethyl) ester	
71	P094	Phosphorothioic acid, O,O-diethyl S-	

1		(ethylthio)methyl ester	
2	P089	Phosphorothioic acid, O,O-diethyl	
3		O-(p-nitrophenyl) ester	
4	P040	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	
5	P097	Phosphorothioic acid, O,O-dimethyl O-[p-	
6		((dimethylamino)-sulfonyl)phenyl]ester	
7	P110	Plumbane, tetraethyl-	
8	P098	Potassium cyanide	
9	P099	Potassium silver cyanide	
10	P070	Propanal, 2-methyl-2-(methylthio)-,	
11		O- [(methylamino)carbonyl]oxime	
12	P101	Propanenitrile	
13	P027	Propanenitrile, 3-chloro-	
14	P069	Propanenitrile, 2-hydroxy-2-methyl-	
15	P081	1,2,3-Propanetriol, trinitrate-	(R)
16	P017	2-Propanone, 1-bromo-	
17	P102	Propargyl alcohol	
18	P003	2-Propenal	
19	P005	2-Propen-1-ol	
20	P067	1,2-Propylenimine	
21	P102	2-Propyn-1-ol	
22	P008	4-Pyridinamine	
23	P075	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-,	
24		and salts	
25	P111	Pyrophosphoric acid, tetraethyl ester	
26	P103	Selenourea	
27	P104	Silver cyanide	
28	P105	Sodium azide	
29	P106	Sodium cyanide	
30	P107	Strontium sulfide	
31	P108	Strychnidin-10-one, and salts	
32	P018	Strychnidin-10-one, 2,3-dimethoxy-	
33	P108	Strychnine and salts	
34	P115	Sulfuric acid, thallium(I) salt	
35	P109	Tetraethyldithiopyrophosphate	
36	P110	Tetraethyl lead	
37	P111	Tetraethylpyrophosphate	
38	P112	Tetranitromethane	(R)
39	P062	Tetrphosphoric acid, hexaethyl ester	
40	P113	Thallic oxide	
41	P113	Thallium(III) oxide	
42	P114	Thallium(I) selenide	
43	P115	Thallium(I) sulfate	
44	P045	Thiofanox	
45	P049	Thioimidodicarbonic diamide	
46	P014	Thiophenol	
47	P116	Thiosemicarbazide	
48	P026	Thiourea, (2-chlorophenyl)-	
49	P072	Thiourea, 1-naphthalenyl-	
50	P093	Thiourea, phenyl-	
51	P123	Toxaphene	
52	P118	Trichloromethanethiol	
53	P119	Vanadic acid, ammonium salt	
54	P120	Vanadium pentoxide	
55	P120	Vanadium(V) oxide	
56	P001	Warfarin when present at concentrations	
57		greater than 0.3 percent	
58	P121	Zinc cyanide	
59	P122	Zinc phosphide when present at	
60		concentrations greater than 10 percent	(R,T)

61

62 F. The commercial chemical products or manufacturing

63 chemical intermediates, or off-specification commercial chemical

64 products referred to in items A to D, and listed in the

65 following table are identified as toxic wastes (T) unless

66 otherwise designated and are subject to the small quantity

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

8 Hazardous Wastes from Commercial Chemical Products

9 Hazardous		Hazard
10 Waste No.	Substance	Code
11		
12 U001	Acetaldehyde	(I)
13 U034	Acetaldehyde, trichloro-	
14 U187	Acetamide, N-(4-ethoxyphenyl)-	
15 U005	Acetamide, N-9H-fluoren-2-yl-	
16 U112	Acetic acid, ethyl ester	(I)
17 U144	Acetic acid, lead salt	
18 U214	Acetic acid, thallium(I) salt	
19 U002	Acetone	(I)
20 U003	Acetonitrile	(I,T)
21 U248	3-(alpha-Acetylbenzyl)-4-hydroxycoumarin	
22	and salts when present at concentrations of	
23	0.3 percent or less	
24 U004	Acetophenone	
25 U005	2-Acetylaminofluorene	
26 U006	Acetyl chloride	(C,R,T)
27 U007	Acrylamide	
28 U008	Acrylic acid	(I)
29 U009	Acrylonitrile	
30 U150	Alanine, 3-[p-bis(2-chloroethyl)amino] phenyl-,L-	
31 U011	Amitrole	
32 U328	2-Amino-1-methylbenzene	
33 U353	4-Amino-1-methylbenzene	
34 U012	Aniline	(I,T)
35 U014	Auramine	
36 U015	Azaserine	
37 U010	Azirino(2',3':3,4)pyrrolo(1,2-a)indole-4,	
38	7-dione, 6-amino-8-[(aminocarbonyl	
39	oxy)methyl]-1,1a,2,8,8a,8b-Hexahydro-	
40	8a-methoxy-5-methyl-,	
41 U157	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	
42 U016	Benz[c]acridine	
43 U016	3,4-Benzacridine	
44 U017	Benzal chloride	
45 U018	Benz[a]anthracene	
46 U018	1,2-Benzanthracene	
47 U094	1,2-Benzanthracene, 7,12-dimethyl-	
48 U012	Benzenamine	(I,T)
49 U014	Benzenamine, 4,4'-carbonimidoylbis	
50	(N,N-dimethyl)-	
51 U049	Benzenamine, 4-chloro-2-methyl-	
52 U093	Benzenamine, N,N'-dimethyl-4-phenylazo-	
53 U158	Benzenamine, 4,4'-methylenebis (2-chloro)-	
54 U222	Benzenamine, 2-methyl-, hydrochloride	
55 U181	Benzenamine, 2-methyl-5-nitro	
56 U019	Benzene	(I,T)
57 U038	Benzeneacetic acid, 4-chloro-alpha-	
58	(4-chlorophenyl)-alpha-hydroxy, ethyl ester	
59 U030	Benzene, 1-bromo-4-phenoxy-	
60 U037	Benzene, chloro-	
61 U190	1,2-Benzenedicarboxylic acid anhydride	
62 U028	1,2-Benzenedicarboxylic acid,	
63	[bis(2-ethyl-hexyl)] ester	



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	

1	U033	Carbonyl fluoride	(R,T)
2	U034	Chloral	
3	U035	Chlorambucil	
4	U036	Chlordane, technical	
5	U026	Chlornaphazine	
6	U037	Chlorobenzene	
7	U039	4-Chloro-m-cresol	
8	U041	1-Chloro-2,3-epoxypropane	
9	U042	2-Chloroethyl vinyl ether	
10	U044	Chloroform	
11	U046	Chloromethyl methyl ether	
12	U047	beta-Chloronaphthalene	
13	U048	o-Chlorophenol	
14	U049	4-Chloro-o-toluidine, hydrochloride	
15	U032	Chromic acid, calcium salt	
16	U050	Chrysene	
17	U051	Creosote	
18	U052	Cresols	
19	U052	Cresylic acid	
20	U053	Crotonaldehyde	
21	U055	Cumene	(I)
22	U246	Cyanogen bromide	
23	U197	1,4-Cyclohexadienedione	
24	U056	Cyclohexane	(I)
25	U057	Cyclohexanone	(I)
26	U130	1,3-Cyclopentadiene, 1,2,3,4,5, 5-hexachloro-	
27	U058	Cyclophosphamide	
28	U240	2,4-D, salts and esters	
29	U059	Daunomycin	
30	U060	DDD, 1,1-(2,2-dichloroethylidene)-bis-4-	
31		chlorobenzene	
32	U061	DDT, 1,1'-(2,2,2-trichloroethylidene)-bis	
33		-4-chlorobenzene	
34	U142	Decachlorooctahydro-1,3,4-metheno	
35		-2H-cyclobuta[c,d]-pentalen-2-one	
36	U062	Diallate	
37	U133	Diamine	(R,T)
38	U221	Diaminotoluene	
39	U063	Dibenz[a,h]anthracene	
40	U063	1,2:5,6-Dibenzanthracene	
41	U064	1,2:7,8-Dibenzopyrene	
42	U064	Dibenz[a,i]pyrene	
43	U066	1,2-Dibromo-3-chloropropane	
44	U069	Dibutyl phthalate	
45	U062	S-(2,3-Dichloroallyl) diisopropylthiocarbamate	
46	U070	o-Dichlorobenzene	
47	U071	m-Dichlorobenzene	
48	U072	p-Dichlorobenzene	
49	U073	3,3'-Dichlorobenzidine	
50	U074	1,4-Dichloro-2-butene	(I,T)
51	U075	Dichlorodifluoromethane	
52	U192	3,5-Dichloro-N-(1,1-dimethyl-2-	
53		propynyl) benzamide	
54	U060	Dichloro diphenyl dichloroethane	
55	U061	Dichloro diphenyl trichloroethane	
56	U078	1,1-Dichloroethylene	
57	U079	1,2-Dichloroethylene	
58	U025	Dichloroethyl ether	
59	U081	2,4-Dichlorophenol	
60	U082	2,6-Dichlorophenol	
61	U240	2,4-Dichlorophenoxyacetic acid, salts and esters	
62	U083	1,2-Dichloropropane	
63	U084	1,3-Dichloropropene	
64	U085	1,2:3,4-Diepoxybutane	(I,T)
65	U108	1,4-Diethylene dioxide	
66	U086	N,N-Diethylhydrazine	
67	U087	O,O-Diethyl-S-methyl-dithiophosphate	
68	U088	Diethyl phthalate	
69	U089	Diethylstilbestrol	
70	U148	1,2-Dihydro-3,6-pyridazinedione	
71	U090	Dihydrosafrole	

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	Dimethylcarbonyl 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-Ethanediylobiscarbamodithioic 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-3-nitrosoureido)-	
71			

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)

1	U138	Methyl iodide	
2	U161	Methyl isobutyl ketone	(I)
3	U162	Methyl methacrylate	(I,T)
4	U163	N-Methyl-N'-nitro-N-nitrosoquanidine	
5	U161	4-Methyl-2-pentanone	(I)
6	U164	Methylthiouracil	
7	U010	Mitomycin C	
8	U059	5,12-Naphthacenedione, (8S-cis)-8-acetyl-	
9		10-[(3-amino-2,3,6-trideoxy-alpha-L-	
10		lyxo-hexopyranosyl)oxyl]-7,8,9,10-	
11		tetrahydro-6,8,11-trihydroxy-1-methoxy-	
12	U165	Naphthalene	
13	U047	Naphthalene, 2-chloro-	
14	U166	1,4-Naphthalenedione	
15	U236	2,7-Naphthalenedisulfonic acid, 3,3'-[3,3'-	
16		dimethyl-(1,1'-biphenyl)-4,4'diyl]-bis	
17		(azo)bis(5-amino-4-hydroxy)-, tetrasodium salt	
18	U166	1,4 -Naphthoquinone	
19	U167	1-Naphthylamine	
20	U168	2-Naphthylamine	
21	U167	alpha-Naphthylamine	
22	U168	beta-Naphthylamine	
23	U026	2-Naphthylamine, N,N-bis(2-chloro-ethyl)-	
24	U169	Nitrobenzene	(I,T)
25	U170	p-Nitrophenol	
26	U171	2-Nitropropane	(I,T)
27	U172	N-Nitrosodi-n-butylamine	
28	U173	N-Nitrosodiethanolamine	
29	U174	N-Nitrosodiethylamine	
30	U111	N-Nitrosodi-N-propylamine	
31	U176	N-Nitroso-N-ethylurea	
32	U177	N-Nitroso-N-methylurea	
33	U178	N-Nitroso-N-methylurethane	
34	U179	N-Nitrosopiperidine	
35	U180	N-Nitrosopyrrolidine	
36	U181	5-Nitro-o-toluidine	
37	U193	1,2-Oxathiolane, 2,2-dioxide	
38	U058	2H-1,3,2-Oxazaphosphorine, 2 [bis(2-chloro-	
39		ethyl)amino]-tetrahydro-, 2-oxide	
40	U115	Oxirane	(I,T)
41	U041	Oxirane, 2-(chloromethyl)-	
42	U182	Paraldehyde	
43	U183	Pentachlorobenzene	
44	U184	Pentachloroethane	
45	U185	Pentachloronitrobenzene	
46	U186	1,3-Pentadiene	(I)
47	U187	Phenacetin	
48	U188	Phenol	
49	U048	Phenol, 2-chloro-	
50	U039	Phenol, 4-chloro-3-methyl-	
51	U081	Phenol, 2,4-dichloro-	
52	U082	Phenol, 2,6-dichloro-	
53	U101	Phenol, 2,4-dimethyl-	
54	U170	Phenol, 4-nitro-	
55	U137	1,10-(1,2-Phenylene)pyrene	
56	U145	Phosphoric acid, lead salt	
57	U087	Phosphorodithioic acid, O,O-diethyl S-methyl ester	
58	U189	Phosphorus sulfide	(R)
59	U190	Phthalic anhydride	
60	U191	2-Picoline	
61	U192	Pronamide	
62	U194	1-Propanamine	(I,T)
63	U110	1-Propanamine, N-propyl-	(I)
64	U066	Propane, 1,2-dibromo-3-chloro-	
65	U149	Propanedinitrile	
66	U171	Propane, 2-nitro-	(I,T)
67	U027	Propane, 2,2'oxybis[2-chloro]-	
68	U193	1,3-Propane sultone	
69	U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)	
70	U126	1-Propanol, 2,3-epoxy-	
71	U140	1-Propanol, 2-methyl-	(I,T)

1	U002	2-Propanone	(I)
2	U007	2-Propenamide	
3	U084	Propene, 1,3-dichloro-	
4	U243	1-Propene, 1,1,2,3,3,3-hexachloro-	
5	U009	2-Propenenitrile	
6	U152	2-Propenenitrile, 2-methyl-	(I,T)
7	U008	2-Propenoic acid	(I)
8	U113	2-Propenoic acid, ethyl ester	(I)
9	U118	2-Propenoic acid, 2-methyl-, ethyl ester	
10	U162	2-Propenoic acid, 2-methyl-, methyl ester,	(I,T)
11	U194	n-Propylamine	(I,T)
12	U083	Propylene dichloride	
13	U196	Pyridine	
14	U155	Pyridine, 2-[(2-dimethylamino)ethyl]-2-thenylamino-	
15	U179	Pyridine, hexahydro-N-nitroso-	
16	U191	Pyridine, 2-methyl-	
17	U164	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	
18	U180	Pyrrole, tetrahydro-N-nitroso-	
19	U200	Reserpine	
20	U201	Resorcinol	
21	U202	Saccharin and salts	
22	U203	Safrole	
23	U204	Selenious acid	
24	U204	Selenium dioxide	
25	U205	Selenium disulfide	(R,T)
26	U015	L-Serine, diazoacetate (ester)	
27	U089	4,4'-Stilbenediol, alpha,alpha'-diethyl-	
28	U206	Streptozotocin	
29	U135	Sulfur hydride	
30	U103	Sulfuric acid, dimethyl ester	
31	U189	Sulfur phosphide	(R)
32	U205	Sulfur selenide	(R,T)
33	U207	1,2,4,5-Tetrachlorobenzene	
34	U208	1,1,1,2-Tetrachloroethane	
35	U209	1,1,2,2-Tetrachloroethane	
36	U210	Tetrachloroethylene	
37	U213	Tetrahydrofuran	(I)
38	U214	Thallium(I) acetate	
39	U215	Thallium(I) carbonate	
40	U216	Thallium(I) chloride	
41	U217	Thallium(I) nitrate	
42	U218	Thioacetamide	
43	U153	Thiomethanol	(I,T)
44	U219	Thiourea	
45	U244	Thiram	
46	U220	Toluene	
47	U221	Toluenediamine	
48	U223	Toluene diisocyanate	(R,T)
49	U328	o-Toluidine	
50	U353	p-Toluidine	
51	U222	o-Toluidine hydrochloride	
52	U011	1H-1,2,4-Triazol-3-amine	
53	U226	1,1,1-Trichloroethane	
54	U227	1,1,2-Trichloroethane	
55	U228	Trichloroethene	
56	U228	Trichloroethylene	
57	U121	Trichloromonofluoromethane	
58	U234	sym-Trinitrobenzene	(R,T)
59	U182	1,3,5-Trioxane, 2,4,6-trimethyl-	
60	U235	Tris (2,3-dibromopropyl) phosphate	
61	U236	Trypan blue	
62	U237	Uracil, 5[bis(2-chloroethyl)amino]-	
63	U237	Uracil mustard	
64	U043	Vinyl chloride	
65	U248	Warfarin when present at concentrations	
66		of 0.3 percent or less	
67	U239	Xylene	(I)
68	U200	Yohimban-16-carboxylic acid, 11,	
69		17-di-methoxy-18-[(3,4,5-trimethoxy-	
70		benzoyl)oxy]-, methyl ester,	
71	U249	Zinc phosphide when present at	

1 concentrations of 10 percent or less

2

3 Subp. 5. [Unchanged.]

4 7045.0139 BASIS FOR LISTING HAZARDOUS WASTES.

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

11 Basis for Listing Hazardous Wastes

12 Hazardous	
13 Waste No.	Hazardous Constituents For Which Listed
14 F001	Tetrachloroethylene, methylene chloride, trichloro-
15	ethylene, 1,1,1-trichloroethane, carbon tetrachloride,
16	chlorinated fluorocarbons
17 F002	Tetrachloroethylene, methylene chloride, trichloro-
18	ethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane,
19	chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane,
20	o-dichlorobenzene, trichlorofluoromethane
21 F003	N.A.
22 F004	Cresols and cresylic acid, nitrobenzene
23 F005	Toluene, methyl ethyl ketone, carbon disulfide,
24	isobutanol, pyridine, 2-ethoxyethanol, benzene,
25	2-nitropropane
26 F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed)
27 F007	Cyanide (salts)
28 F008	Cyanide (salts)
29 F009	Cyanide (salts)
30 F010	Cyanide (salts)
31 F011	Cyanide (salts)
32 F012	Cyanide (complexed)
33 F019	Hexavalent chromium, cyanide (complexed)
34 F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra-
35	and pentachlorodibenzofurans; tri- and
36	tetrachlorophenols and their chlorophenoxy
37	derivative acids, esters, ethers, amine, and other
38	salts
39 F021	Penta- and hexachlorodibenzo-p-dioxins; penta- and
40	hexachlorodibenzofurans; pentachlorophenol and its
41	derivatives
42 F022	Tetra-, penta-, and hexachlorodibenzo-p-dioxins;
43	tetra-, penta-, and hexachlorodibenzofurans
44 F023	Tetra- and pentachlorodibenzo-p-dioxins; tetra-
45	and pentachlorodibenzofurans; tri- and
46	tetrachlorophenols and their chlorophenoxy
47	derivative acids, esters, ethers, amine, and other
48	salts
49 F024	Chloromethane, dichloromethane, trichloromethane,
50	carbon tetrachloride, chloroethylene,
51	1,1-dichloroethane, 1,2-dichloroethane,
52	trans-1,2-dichloroethylene, 1,1-dichloroethylene,
53	1,1,1-trichloroethane, 1,1,2-trichloroethane,
54	trichloroethylene, 1,1,1,2-tetrachloroethane,
55	1,1,2,2-tetrachloroethane, tetrachloroethylene,
56	pentachloroethane, hexachloroethane, allyl
57	chloride (3-chloropropene), dichloropropene,
58	dichloropropene, 2-chloro-1,3-butadiene,
59	hexachloro-1,3-butadiene, hexachlorocyclopenta-
60	diene, hexachlorocyclohexane, benzene,
61	

1 chlorobenzene, dichlorobenzenes,  
 2 1,2,4-trichlorobenzene, tetrachlorobenzene,  
 3 pentachlorobenzene, hexachlorobenzene, toluene,  
 4 naphthalene  
 5 F026 Tetra-, penta-, and hexachlorodibenzo-p-dioxins;  
 6 tetra-, penta-, and hexachlorodibenzofurans  
 7 F027 Tetra-, penta-, and hexachlorodibenzo-p-dioxins;  
 8 tetra-, penta-, and hexachlorodibenzofurans;  
 9 tri-, tetra-, and pentachlorophenols and their  
 10 chlorophenoxy derivative acids, esters, ethers,  
 11 amine, and other salts  
 12 F028 Tetra-, penta-, and hexachlorodibenzo-p-dioxins;  
 13 tetra-, penta-, and hexachlorodibenzofurans;  
 14 tri-, tetra-, and pentachlorophenols and their  
 15 chlorophenoxy derivative acids, esters, ethers,  
 16 amine, and other salts  
 17 K001 Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-  
 18 cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichloro-,  
 19 phenols, tetrachlorophenols, 2,4-dinitrophenol, cresosote,  
 20 chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene,  
 21 benzo(a)pyrene, indeno (1,2,3,cd)pyrene, benz(a)-  
 22 anthracene, dibenz(a)anthracene, acenaphthalene  
 23 K002 Hexavalent chromium, lead  
 24 K003 Hexavalent chromium, lead  
 25 K004 Hexavalent chromium  
 26 K005 Hexavalent chromium, lead  
 27 K006 Hexavalent chromium  
 28 K007 Cyanide (complexed), hexavalent chromium  
 29 K008 Hexavalent chromium  
 30 K009 Chloroform, formaldehyde, methylene chloride, methyl  
 31 chloride, paraldehyde, formic acid  
 32 K010 Chloroform, formaldehyde, methylene chloride, methyl  
 33 chloride, paraldehyde, formic acid, chloroacetaldehyde  
 34 K011 Acrylonitrile, acetonitrile, hydrocyanic acid  
 35 K013 Hydrocyanic acid, acrylonitrile, acetonitrile  
 36 K014 Acetonitrile, acrylamide  
 37 K015 Benzyl chloride, chlorobenzene, toluene, benzotrichloride  
 38 K016 Hexachlorobenzene, hexachlorobutadiene, carbon  
 39 tetrachloride, hexachloroethane, perchloroethylene  
 40 K017 Epichlorohydrin, chloroethers [bis (chloromethyl) ether  
 41 and bis (2-chloroethyl) ethers], trichloropropane,  
 42 dichloropropanols  
 43 K018 1,2-dichloroethane, trichloroethylene,  
 44 hexachlorobutadiene, hexachlorobenzene  
 45 K019 Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-  
 46 trichloroethane, tetrachloroethanes (1,1,2,2-  
 47 tetrachloroethane and 1,1,1,2-tetrachloroethane),  
 48 trichloroethylene, tetrachloroethylene, carbon tetra-  
 49 chloride, chloroform, vinyl chloride, vinylidene chloride  
 50 K020 Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-  
 51 trichloroethane, tetrachloroethanes (1,1,2,2-tetra-  
 52 chloroethane and 1,1,1,2-tetrachloroethane), trichloro-  
 53 ethylene, tetrachloroethylene, carbon tetrachloride,  
 54 chloroform, vinyl chloride, vinylidene chloride  
 55 K021 Antimony, carbon tetrachloride, chloroform  
 56 K022 Phenol, tars (polycyclic aromatic hydrocarbons  
 57 K023 Phthalic anhydride, maleic anhydride  
 58 K024 Phthalic anhydride, 1,4-naphthoquinone  
 59 K025 Meta-dinitrobenzene, 2,4-dinitrotoluene  
 60 K026 Paraldehyde, pyridines, 2-picoline  
 61 K027 Toluene diisocyanate, toluene-2, 4-diamine  
 62 K028 1,1,1-trichloroethane, vinyl chloride  
 63 K029 1,2-dichloroethane, 1,1,1-trichloroethane, vinyl  
 64 chloride, vinylidene chloride, chloroform  
 65 K030 Hexachlorobenzene, hexachlorobutadiene,  
 66 hexachloroethane, 1,1,1,2-tetrachloroethane,  
 67 1,1,2,2-tetrachloroethane, ethylene dichloride  
 68 K031 Arsenic  
 69 K032 Hexachlorocyclopentadiene  
 70 K033 Hexachlorocyclopentadiene  
 71 K034 Hexachlorocyclopentadiene



1	K035	Creosote, chrysene, naphthalene, fluoranthene, benzo-
2		(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene,
3		benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene
4	K036	Toluene, phosphorodithioic and phosphorothioic acid esters
5	K037	Toluene, phosphorodithioic and phosphorothioic acid esters
6	K038	Phorate, formaldehyde, phosphorodithioic and
7		phosphorothioic acid esters
8	K039	Phosphorodithioic and phosphorothioic acid esters
9	K040	Phorate, formaldehyde, phosphorodithioic and
10		phosphorothioic acid esters
11	K041	Toxaphene
12	K042	Hexachlorobenzene, ortho-dichlorobenzene
13	K043	2,4-dichlorophenol, 2,6-dichlorophenol,
14		2,4,6-trichlorophenol
15	K044	N.A.
16	K045	N.A.
17	K046	Lead
18	K047	N.A.
19	K048	Hexavalent chromium, lead
20	K049	Hexavalent chromium, lead
21	K050	Hexavalent chromium
22	K051	Hexavalent chromium, lead
23	K052	Lead
24	K060	Cyanide, naphthalene, phenolic compounds, arsenic
25	K061	Hexavalent chromium, lead, cadmium
26	K062	Hexavalent chromium, lead
27	K069	Hexavalent chromium, lead, cadmium
28	K071	Mercury
29	K073	Chloroform, carbon tetrachloride, hexachloroethane,
30		trichloroethane, tetrachloroethylene, dichloro-
31		ethylene, 1,1,2,2-tetrachloroethane
32	K083	Aniline, diphenylamine, nitrobenzene, phenylenediamine
33	K084	Arsenic
34	K085	Benzene, dichlorobenzenes, trichlorobenzenes, tetra-
35		chlorobenzenes, pentachlorobenzene, hexachlorobenzene,
36		benzyl chloride
37	K086	Lead, hexavalent chromium
38	K087	Phenol, naphthalene
39	K093	Phthalic anhydride, maleic anhydride
40	K094	Phthalic anhydride
41	K095	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane,
42		1,1,2,2-tetrachloroethane
43	K096	1,2-dichloroethane, 1,1,1-trichloroethane,
44		1,1,2-trichloroethane
45	K097	Chlordane, heptachlor
46	K098	Toxaphene
47	K099	2,4-dichlorophenol, 2,4,6-trichlorophenol
48	K100	Hexavalent chromium, lead, cadmium
49	K101	Arsenic
50	K102	Arsenic
51	K103	Aniline, nitrobenzene, phenylenediamine
52	K104	Aniline, benzene, diphenylamine, nitrobenzene,
53		phenylenediamine
54	K105	Benzene, monochlorobenzene, dichlorobenzenes,
55		2,4,6-trichlorophenol
56	K106	Mercury
57	K111	2,4-Dinitrotoluene
58	K112	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline
59	K113	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline
60	K114	2,4-Toluenediamine, o-toluidine, p-toluidine
61	K115	2,4-Toluenediamine
62	K116	Carbon tetrachloride, tetrachloroethylene,
63		chloroform, phosgene
64	K117	Ethylene dibromide
65	K118	Ethylene dibromide
66	K136	Ethylene dibromide

67 7045.0141 HAZARDOUS CONSTITUENTS.

68 Hazardous constituents are as follows:

- 1 Acetonitrile
- 2 Acetophenone
- 3 3-(alpha-Acetylbenzyl)-4-hydroxycoumarin and salts
- 4 2-Acetylaminofluorene
- 5 Acetyl chloride
- 6 1-Acetyl-2-thiourea
- 7 Acrolein
- 8 Acrylamide
- 9 Acrylonitrile
- 10 Aflatoxins
- 11 Aldrin
- 12 Allyl alcohol
- 13 Aluminum phosphide
- 14 4-Aminobiphenyl
- 15 6-Amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)-8a-methoxy-5-
- 16 methylcarbamate azirino(2',3':3,4) pyrrolo(1,2-a)indole-4,7-
- 17 dione, (ester), (Mitomycin C)
- 18 5-(Aminomethyl)-3-isoxazolol
- 19 Amitrole
- 20 Aniline
- 21 Antimony and compounds not otherwise specified in this list
- 22 Aramite
- 23 Arsenic and compounds not otherwise specified in this list
- 24 Arsenic acid
- 25 Arsenic pentoxide
- 26 Arsenic trioxide
- 27 Auramine
- 28 Azaserine
- 29 Barium and compounds not otherwise specified in this list
- 30 Barium cyanide
- 31 Benz[c]acridine
- 32 Benz[a]anthracene
- 33 Benzene
- 34 Benzene, 2-amino-1-methyl (o-Toluidine)
- 35 Benzene, 4-amino-1-methyl (p-Toluidine)
- 36 Benzenearsonic acid
- 37 Benzene, dichloromethyl-
- 38 Benzenethiol
- 39 Benzidine
- 40 Benzo[b]fluoranthene
- 41 Benzo[j]fluoranthene
- 42 Benzo[a]pyrene
- 43 p-Benzoquinone
- 44 Benzotrichloride
- 45 Benzyl chloride
- 46 Beryllium and compounds not otherwise specified in this list
- 47 Bis(2-chloroethoxy)methane
- 48 Bis(2-chloroethyl) ether
- 49 N,N-Bis(2-chloroethyl)-2-naphthylamine
- 50 Bis(2-chloroisopropyl) ether
- 51 Bis(chloromethyl) ether
- 52 Bis(2-ethylhexyl) phthalate
- 53 Bromoacetone
- 54 Bromomethane
- 55 4-Bromophenyl phenyl ether
- 56 Brucine
- 57 2-Butanone peroxide
- 58 Butyl benzyl phthalate
- 59 2-sec-Butyl-4,6-dinitrophenol (DNBP)
- 60 Cadmium and compounds not otherwise specified in this list
- 61 Calcium chromate
- 62 Calcium cyanide
- 63 Carbon disulfide
- 64 Carbon oxyfluoride
- 65 Chloral
- 66 Chlorambucil
- 67 Chlordane (alpha and gamma isomers)
- 68 Chlorinated benzenes not otherwise specified in this list
- 69 Chlorinated ethane not otherwise specified in this list
- 70 Chlorinated fluorocarbons not otherwise specified in this list
- 71 Chlorinated naphthalene not otherwise specified in this list

- 1 Chlorinated phenol not otherwise specified in this list
- 2 Chloroacetaldehyde
- 3 Chloroalkyl ethers not otherwise specified in this list
- 4 p-Chloroaniline
- 5 Chlorobenzene
- 6 Chlorobenzilate
- 7 2-Chloro-1,3-butadiene (chloroprene)
- 8 p-Chloro-m-cresol
- 9 1-Chloro-2,3-epoxybutane
- 10 1-Chloro-2,3-epoxypropane
- 11 2-Chloroethyl vinyl ether
- 12 Chloroform
- 13 Chloromethane
- 14 Chloromethyl methyl ether
- 15 2-Chloronaphthalene
- 16 2-Chlorophenol
- 17 1-(o-Chlorophenyl)thiourea
- 18 3-Chloropropene (allyl chloride)
- 19 3-Chloropropionitrile
- 20 Chromium and compounds not otherwise specified in this list
- 21 Chrysene
- 22 Citrus red No. 2
- 23 Coal Tars
- 24 Copper cyanide
- 25 Creosote
- 26 Cresols
- 27 Crotonaldehyde
- 28 Cyanides (soluble salts and complexes) not otherwise specified  
29 in this list
- 30 Cyanogen
- 31 Cyanogen bromide
- 32 Cyanogen chloride
- 33 Cycasin
- 34 2-Cyclohexyl-4,6-dinitrophenol
- 35 Cyclophosphamide
- 36 Daunomycin
- 37 DDD (1,1-(2,2-dichloroethylidene)-bis-4-chlorobenzene)
- 38 DDE (Ethylene, 1,1-dichloro-2,2-bis(4-chlorophenyl)-)
- 39 DDT (1,1'-(2,2,2-trichloroethylidene)-bis-4-chlorobenzene)
- 40 Diallate
- 41 Dibenz[a,h]acridine
- 42 Dibenz[a,j]acridine
- 43 Dibenz[a,h]anthracene
- 44 7H-Dibenzo[c,g]carbazole
- 45 Dibenzo[a,e]pyrene
- 46 Dibenzo[a,h]pyrene
- 47 Dibenzo[a,i]pyrene
- 48 1,2-Dibromo-3-chloropropane
- 49 1,2-Dibromoethane
- 50 Dibromomethane
- 51 Di-n-butyl phthalate
- 52 o-Dichlorobenzene
- 53 m-Dichlorobenzene
- 54 p-Dichlorobenzene
- 55 Dichlorobenzene not otherwise specified in this list
- 56 3,3'-Dichlorobenzidine
- 57 1,4-Dichloro-2-butene
- 58 Dichlorodifluoromethane
- 59 1,1-Dichloroethane
- 60 1,2-Dichloroethane
- 61 trans-1,2-Dichloroethene
- 62 Dichloroethylene not otherwise specified in this list
- 63 1,1-Dichloroethylene
- 64 Dichloromethane
- 65 2,4-Dichlorophenol
- 66 2,6-Dichlorophenol
- 67 2,4-Dichlorophenoxyacetic acid, salts and esters (2,4-D)
- 68 Dichlorophenylarsine
- 69 Dichloropropane not otherwise specified in this list
- 70 1,2-Dichloropropane
- 71 Dichloropropanol not otherwise specified in this list

- 1 Dichloropropene not otherwise specified in this list
- 2 1,3-Dichloropropene
- 3 Dieldrin
- 4 1,2:3,4-Diepoxybutane
- 5 Diethylarsine
- 6 N,N-Diethylhydrazine
- 7 O,O-Diethyl-S-methyl ester of phosphorodithioic acid
- 8 O,O-Diethylphosphoric acid, O-p-nitrophenyl ester
- 9 Diethyl phthalate
- 10 O,O-Diethyl-O-(2-pyrazinyl)phosphorothioate
- 11 Diethylstilbestrol
- 12 Dihydrosafrole
- 13 3,4-Dihydroxy-alpha-(methylamino)methyl benzyl alcohol
- 14 Di-isopropylfluorophosphate (DFP)
- 15 Dimethoate
- 16 3,3'-Dimethoxybenzidine
- 17 p-Dimethylaminoazobenzene
- 18 7,12-Dimethylbenz[a]anthracene
- 19 3,3'-Dimethylbenzidine
- 20 Dimethylcarbamoyl chloride
- 21 1,1-Dimethylhydrazine
- 22 1,2-Dimethylhydrazine
- 23 3,3-Dimethyl-1-(methylthio)-2-butanone-O-[(methylamino) carbonyl]
- 24 oxime
- 25 alpha, alpha-Dimethylphenethylamine
- 26 2,4-Dimethylphenol
- 27 Dimethyl phthalate
- 28 Dimethyl sulfate
- 29 Dinitrobenzene not otherwise specified in this list
- 30 4,6-Dinitro-o-cresol and salts
- 31 2,4-Dinitrophenol
- 32 2,4-Dinitrotoluene
- 33 2,6-Dinitrotoluene
- 34 Di-n-octyl phthalate
- 35 1,4-Dioxane
- 36 Diphenylamine
- 37 1,2-Diphenylhydrazine
- 38 Di-n-propylnitrosamine
- 39 Disulfoton
- 40 2,4-Dithiobiuret
- 41 Endosulfan
- 42 Endrin and metabolites
- 43 Ethyl carbamate
- 44 Ethyl cyanide
- 45 Ethylenebisdithiocarbamic acid, salts and esters
- 46 Ethylene glycol monoethyl ether (Ethanol, 2-ethoxy)
- 47 Ethyleneimine
- 48 Ethylene oxide
- 49 Ethylenethiourea
- 50 Ethyl methacrylate
- 51 Ethyl methanesulfonate
- 52 Fluoranthene
- 53 Fluorine
- 54 2-Fluoroacetamide
- 55 Fluoroacetic acid, sodium salt
- 56 Formaldehyde
- 57 Formic acid
- 58 Glycidylaldehyde
- 59 Halomethane not otherwise specified in this list
- 60 Heptachlor
- 61 Heptachlor epoxide (alpha, beta, and gamma isomers)
- 62 Hexachlorobenzene
- 63 Hexachlorobutadiene
- 64 Hexachlorocyclohexane (all isomers)
- 65 Hexachlorocyclopentadiene
- 66 Hexachlorodibenzo-p-dioxins
- 67 Hexachlorodibenzofurans
- 68 Hexachloroethane
- 69 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,
- 70 endo-dimethanonaphthalene
- 71 Hexachlorophene

- 1 Hexachloropropene
- 2 Hexaethyl tetraphosphate
- 3 Hydrazine
- 4 Hydrocyanic acid
- 5 Hydrofluoric acid
- 6 Hydrogen sulfide
- 7 Hydroxydimethylarsine oxide
- 8 Indeno(1,2,3-cd)pyrene
- 9 Iodomethane
- 10 Iron dextran
- 11 Isocyanic acid, methyl ester
- 12 Isobutyl alcohol
- 13 Isosafrole
- 14 Kepone
- 15 Lasiocarpine
- 16 Lead and compounds not otherwise specified in this list
- 17 Lead acetate
- 18 Lead phosphate
- 19 Lead subacetate
- 20 Maleic anhydride
- 21 Maleic hydrazide
- 22 Malononitrile
- 23 Melphalan
- 24 Mercury fulminate
- 25 Mercury and compounds not otherwise specified in this list
- 26 Methacrylonitrile
- 27 Methanethiol
- 28 Methapyrilene
- 29 Methomyl
- 30 Methoxychlor
- 31 2-Methylaziridine
- 32 3-Methylcholanthrene
- 33 Methyl chlorocarbonate
- 34 4,4'-Methylene-bis-(2-chloroaniline)
- 35 Methyl ethyl ketone (MEK)
- 36 Methyl hydrazine
- 37 2-Methylactonitrile
- 38 Methyl methacrylate
- 39 Methyl methanesulfonate
- 40 2-Methyl-2-(methylthio)propionaldehyde-o-(methylcarbonyl) oxime
- 41 N-Methyl-N'-nitro-N-nitrosoguanidine
- 42 Methyl parathion
- 43 Methylthiouracil
- 44 Mustard gas
- 45 Naphthalene
- 46 1,4-Naphthoquinone
- 47 1-Naphthylamine
- 48 2-Naphthylamine
- 49 1-Naphthyl-2-thiourea
- 50 Nickel and compounds not otherwise specified in this list
- 51 Nickel carbonyl
- 52 Nickel cyanide
- 53 Nicotine and salts
- 54 Nitric oxide
- 55 p-Nitroaniline
- 56 Nitrobenzene
- 57 Nitrogen dioxide
- 58 Nitrogen mustard and hydrochloride salt
- 59 Nitrogen mustard N-oxide and hydrochloride salt
- 60 Nitroglycerine
- 61 4-Nitrophenol
- 62 2-Nitropropane (Propane, 2-nitro)
- 63 4-Nitroquinoline-1-oxide
- 64 Nitrosamine not otherwise specified in this list
- 65 N-Nitrosodi-N-butylamine
- 66 N-Nitrosodiethanolamine
- 67 N-Nitrosodiethylamine
- 68 N-Nitrosodimethylamine
- 69 N-Nitroso-N-ethylurea
- 70 N-Nitrosomethylethylamine
- 71 N-Nitroso-N-methylurea

- 1 N-Nitroso-N-methylurethane
- 2 N-Nitrosomethylvinylamine
- 3 N-Nitrosomorpholine
- 4 N-Nitrosornicotine
- 5 N-Nitrosopiperidine
- 6 N-Nitrosopyrrolidine
- 7 N-Nitrososarcosine
- 8 5-Nitro-o-toluidine
- 9 Octamethylpyrophosphoramidate
- 10 Osmium tetroxide
- 11 7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
- 12 Paraldehyde
- 13 Parathion
- 14 Pentachlorobenzene
- 15 Pentachlorodibenzo-p-dioxins
- 16 Pentachlorodibenzofurans
- 17 Pentachloroethane
- 18 Pentachloronitrobenzene (PCNB)
- 19 Pentachlorophenol
- 20 Phenacetin
- 21 Phenol
- 22 Phenylenediamine
- 23 Phenylmercury acetate
- 24 N-Phenylthiourea
- 25 Phosgene
- 26 Phosphine
- 27 Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl]ester
- 28 (Phorate)
- 29 Phosphorothioic acid, O,O-dimethyl O-[p-(dimethylamino-
- 30 sulfonyl)phenyl] ester
- 31 Phthalic acid esters not otherwise specified in this list
- 32 Phthalic anhydride
- 33 2-Picoline
- 34 Polychlorinated biphenyl not otherwise specified in this list
- 35 Potassium cyanide
- 36 Potassium silver cyanide
- 37 Pronamide
- 38 1,3-Propane sultone
- 39 n-Propylamine
- 40 Propylthiouracil
- 41 2-Propyn-1-ol
- 42 Pyridine
- 43 Reserpine
- 44 Recorcinol
- 45 Saccharin and salts
- 46 Safrole
- 47 Selenious acid
- 48 Selenium and compounds not otherwise specified in this list
- 49 Selenium sulfide
- 50 Selenourea
- 51 Silver and compounds not otherwise specified in this list
- 52 Silver cyanide
- 53 Sodium cyanide
- 54 Streptozotocin
- 55 Strontium sulfide
- 56 Strychnine and salts
- 57 1,2,4,5-Tetrachlorobenzene
- 58 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
- 59 Tetrachlorodibenzo-p-dioxins not otherwise specified in this list
- 60 Tetrachlorodibenzofurans
- 61 Tetrachloroethane not otherwise specified in this list
- 62 1,1,1,2-Tetrachloroethane
- 63 1,1,2,2-Tetrachloroethane
- 64 Tetrachloroethylene
- 65 Tetrachloromethane
- 66 2,3,4,6-Tetrachlorophenol
- 67 Tetraethyldithiopyrophosphate
- 68 Tetraethyl lead
- 69 Tetraethylpyrophosphate
- 70 Tetranitromethane
- 71 Thallium and compounds not otherwise specified in this list

- 1 Thallic oxide
  - 2 Thallium (I) acetate
  - 3 Thallium (I) carbonate
  - 4 Thallium (I) chloride
  - 5 Thallium (I) nitrate
  - 6 Thallium selenide
  - 7 Thallium (I) sulfate
  - 8 Thioacetamide
  - 9 Thiosemicarbazide
  - 10 Thiourea
  - 11 Thiuram
  - 12 Toluene
  - 13 Toluenediamine, N.O.S.
  - 14 2,4-Toluenediamine
  - 15 2,6-Toluenediamine
  - 16 3,4-Toluenediamine
  - 17 o-Toluidine hydrochloride
  - 18 Tolylene diisocyanate
  - 19 Toxaphene
  - 20 Tribromomethane
  - 21 1,2,4-Trichlorobenzene
  - 22 1,1,1-Trichloroethane
  - 23 1,1,2-Trichloroethane
  - 24 Trichloroethene
  - 25 Trichloromethanethiol
  - 26 Trichloromonofluoromethane
  - 27 2,4,5-Trichlorophenol
  - 28 2,4,6-Trichlorophenol
  - 29 2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)
  - 30 2,4,5-Trichlorophenoxypropionic acid (2,4,5-TP) (Silvex)
  - 31 Trichloropropane not otherwise specified in this list
  - 32 1,2,3-Trichloropropane
  - 33 0,0,0-Triethyl phosphorothioate
  - 34 sym-Trinitrobenzene
  - 35 Tris(1-azridinyl)phosphine sulfide
  - 36 Tris(2,3-dibromopropyl) phosphate
  - 37 Trypan blue
  - 38 Uracil mustard
  - 39 Vanadic acid, ammonium salt
  - 40 Vanadium pentoxide
  - 41 Vinyl chloride
  - 42 Zinc cyanide
  - 43 Zinc phosphide
- 44 7045.0214 EVALUATION OF WASTES.
- 45 Subpart 1. and 2. [Unchanged.]
- 46 Subp. 3. Wastes generated by treatment, storage, or
- 47 disposal. Wastes generated by treatment, storage, or disposal
- 48 of hazardous waste are as follows:
- 49 A. [Unchanged.]
- 50 B. Waste pickle liquor sludge generated by lime
- 51 stabilization of spent pickle liquor from iron and steel
- 52 industry facilities which are classified as number 331 or 332
- 53 facilities under the Office of Management and Budget Standard
- 54 Industrial Classification Manual, is not a hazardous waste
- 55 unless it exhibits one or more characteristics of hazardous
- 56 waste under part 7045.0131.
- 57 C. [Unchanged.]

1 7045.0261 MANIFEST DOCUMENT; GENERAL REQUIREMENTS.

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

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

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

18 C. [Unchanged.]

19 Subp. 2. to 6. [Unchanged.]

20 Subp. 7. Manifest information. The Minnesota manifest is  
21 based on the Uniform National Manifest that is required under  
22 United States Department of Transportation and United States  
23 Environmental Protection Agency regulations, as contained in  
24 Code of Federal Regulations, title 40, part 262, and Code of  
25 Federal Regulations, title 49, part 172. Manifest information  
26 requirements include those required by United States Department  
27 of Transportation and United States Environmental Protection  
28 Agency regulations and consist of the numbered items on the  
29 manifest set forth in the Appendix to Code of Federal  
30 Regulations, title 40, part 262. Additional state information  
31 requirements consist of the telephone number of the designated  
32 facility and the hazardous waste numbers specified in parts  
33 7045.0100 to 7045.0141 for each hazardous waste specified on the  
34 manifest. Manifests must include the information specified in  
35 this subpart and in the instructions on the manifest.



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

5           Subp. 9. **Number of copies.** The manifest must consist of  
6 at least the number of copies which will provide the generator,  
7 each transporter, and the owner or operator of the designated  
8 facility with one copy each for their records, another copy to  
9 be returned to the generator by the facility, and the required  
10 copies to be returned to the director, pursuant to parts  
11 7045.0265; 7045.0474, subpart 2, item D; and 7045.0580, subpart  
12 2, item D, and any additional copies required by the generator's  
13 or designated facility's state, if other than Minnesota. Copies  
14 to be returned to the director shall be sent to: Minnesota  
15 Pollution Control Agency, Solid and Hazardous Waste Division,  
16 520 Lafayette Road, Saint Paul, Minnesota 55155, Attention:  
17 HWIMS.

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

1 with applicable consignment state requirements.

2 7045.0275 PROPER HAZARDOUS WASTE MANAGEMENT.

3 Subpart 1. [Unchanged.]

4 Subp. 2. Spills; duty to report. Any person in control of  
5 a hazardous waste that spills, leaks, or otherwise escapes from  
6 a container, tank, or other containment system, including its  
7 associated piping, shall immediately notify the agency if the  
8 hazardous waste may cause pollution of the air, land resources,  
9 or waters of the state. The person shall use the agency's  
10 24-hour telephone number, (612) 296-8100.

11 Subp. 3. [Unchanged.]

12 7045.0296 ANNUAL REPORTING.

13 Subpart 1. [Unchanged.]

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

17 A. to E. [Unchanged.]

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

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

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

26 Subp. 3. to 5. [Unchanged.]

27 7045.0302 INTERNATIONAL SHIPMENTS; SPECIAL CONDITIONS.

28 Subpart 1. [Unchanged.]

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

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

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

10 B. and C. [Unchanged.]

11 D. use a Minnesota manifest.

12 Subp. 3. [Unchanged.]

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

16 A. and B. [Unchanged.]

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

25 7045.0395 HAZARDOUS WASTE DISCHARGES.

26 Subpart 1. and 2. [Unchanged.]

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

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

33 B. to D. [Unchanged.]

34 Subp. 4. and 5. [Unchanged.]

35 7045.0458 WASTE ANALYSIS REQUIREMENTS.

1 Subpart 1. [Unchanged.]

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

7 A. to E. [Unchanged.]

8 F. where applicable, the methods which will be used  
9 to meet the additional waste analysis requirements for specific  
10 waste management methods as specified in parts 7045.0456;  
11 7045.0538, subpart 10; and 7045.0542, subpart 2; and

12 G. [Unchanged.]

13 7045.0460 LOCATION STANDARDS.

14 Subpart 1. and 2. [Unchanged.]

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

19 7045.0468 EMERGENCY PROCEDURES.

20 Subpart 1. to 4. [Unchanged.]

21 Subp. 5. Report on released material. If the emergency  
22 coordinator determines that the facility has had a release,  
23 fire, or explosion which could threaten human health or the  
24 environment outside the facility, the findings must be reported  
25 as provided in items A and B.

26 A. [Unchanged.]

27 B. The agency's emergency response unit must be  
28 immediately notified at the 24-hour telephone number, (612)  
29 296-8100, and notification must also be given to either the  
30 governmental official designated as the on-scene coordinator for  
31 that geographical area in the applicable regional contingency  
32 plan under Code of Federal Regulations, title 40, part 1510  
33 (1983) or to the National Response Center using their 24-hour  
34 toll free telephone number, (800) 424-8802. The report must  
35 include:

1 (1) to (6) [Unchanged.]

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

7 Subp. 7. and 8. [Unchanged.]

8 7045.0476 MANIFEST DISCREPANCIES.

9 Subpart 1. [Unchanged.]

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

12 A. [Unchanged.]

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

19 Subp. 3. [Unchanged.]

20 7045.0478 OPERATING RECORD.

21 Subpart 1. and 2. [Unchanged.]

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

25 A. to D. [Unchanged.]

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

29 F. to J. [Unchanged.]

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

1 and future threat to human health and the environment.

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

4 7045.0482 REQUIRED REPORTS.

5 Subpart 1. [Unchanged.]

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

13 A. to E. [Unchanged.]

14 F. the most recent closure cost estimate under part  
15 7045.0502 and, for disposal facilities, the most recent  
16 post-closure cost estimates under part 7045.0506;

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

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

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

28 Subp. 3. and 4. [Unchanged.]

29 7045.0484 GROUND WATER PROTECTION.

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

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

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

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

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

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

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

14 (1) the owner or operator is exempted under part  
15 7045.0450;

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

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

30 C. and D. [Unchanged.]

31 Subp. 2. to 11. [Unchanged.]

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

35 A. to D. [Unchanged.]

36 E. The owner or operator of waste piles, land

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

6 (1) and (2) [Unchanged.]

7 F. to K. [Unchanged.]

8 Subp. 13. and 14. [Unchanged.]

9 7045.0485 CORRECTIVE ACTION FOR SOLID AND HAZARDOUS WASTE  
10 MANAGEMENT UNITS.

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

18 Subp. 2. **Conditions.** Corrective action as required under  
19 subpart 1 must be specified in the permit. The permit must  
20 contain schedules of compliance for corrective action and  
21 assurances of financial responsibility for completing corrective  
22 action. Assurance of financial responsibility must be provided  
23 in addition to the applicable requirements of parts 7045.0498 to  
24 7045.0524.

25 7045.0538 LANDFILLS.

26 Subpart 1. to 9. [Unchanged.]

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

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

32 B. [Unchanged.]

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



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

3 Subp. 11. to 13. [Unchanged.]

4 7045.0552 FACILITIES GOVERNED BY INTERIM STATUS.

5 Subpart 1. [Unchanged.]

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

18 Subp. 2. to 4. [Unchanged.]

19 7045.0556 GENERAL FACILITY STANDARDS.

20 Subpart 1. to 6. [Unchanged.]

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

24 7045.0564 WASTE ANALYSIS REQUIREMENTS.

25 Subpart 1. [Unchanged.]

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

31 A. to E. [Unchanged.]

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

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

4 G. [Unchanged.]

5 7045.0584 OPERATING RECORD.

6 Subpart 1. and 2. [Unchanged.]

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

10 A. to D. [Unchanged.]

11 E. Records and results of waste analysis and trial  
12 tests performed as specified in parts 7045.0564; 7045.0628,  
13 subpart 3; 7045.0630, subpart 4; 7045.0632, subpart 3;  
14 7045.0634, subpart 3; 7045.0638, subpart 7; 7045.0640, subpart  
15 2; and 7045.0642, subpart 3.

16 F. to I. [Unchanged.]

17 7045.0588 REQUIRED REPORTS.

18 Subpart 1. [Unchanged.]

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

26 A. to F. [Unchanged.]

27 G. the most recent closure cost estimate under part  
28 7045.0610 and for disposal facilities, the most recent  
29 post-closure cost estimate under part 7045.0614;

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

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

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

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

6 Subp. 3. and 4. [Unchanged.]

7 7045.0638 LANDFILLS.

8 Subpart 1. [Unchanged.]

9 Subp. 2. **General operating requirements.** The owner or  
10 operator shall design, construct, operate, and maintain a run-on  
11 control system capable of preventing flow onto the active  
12 portion of the landfill during peak discharge from at least a  
13 25-year storm.

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

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

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

29 Subp. 3. to 6. [Unchanged.]

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

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

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

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

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

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

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

17 Subp. 8. and 9. [Unchanged.]

18

19 REPEALER. Minnesota Rules, part 7045.0534, subparts 4 and  
20 5 are repealed.