

Minnesota Attorney General: Administrative Rules Proceedings

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Version 3
August 20, 2018

Our File No. 217

05-0009 — 0706

RULE REVIEW CHECKLIST

DATE RULE RECEIVED 10-25
DATE FOR REVIEW 11-4
DATE DUE 11-8

Adopted w/a hearing
Adopted w/o hearing ✓
Temporary rule

Approved 11-5-85 mjc Disapproved _____ Returned to Agency _____

Resubmitted _____ Due _____
Approved _____ Disapproved _____ Returned to Agency _____

Date filed w/Secretary of State _____ Revisor approved 10/25/85 disapproved _____

✓ Rule as Adopted

✓ Rule as Proposed

✓ Order Adopting 10.22.85 Date

✓ Notice of Intent to Solicit Outside Opinion SR. 4.22.85
Affidavit of No Comments "received"

✓ Order for rulemaking
N/A date of Hearing

✓ Certificate of Board's Authorizing Resolution

✓ Notice of rulemaking
✓ Sufficiency contains small biz statement

✓ Affidavit of Mailing Notice or rulemaking
8.16.85 At least 30 days prior to ~~hearing~~/adoption

✓ Mailing list Certificate

✓ Publication in State Register
8.19.85 At least 30/20 days prior to hearing/adoption

N/A Hearing Examiner's Report

✓ Chief Hearing Examiner's Report(s)
_____ Approving H.E.'s Report
_____ Approving agency action

✓ Agency's Findings of Fact

N/A LCRAR Report or agency Affidavit

✓ Certificate of Board's Resolution Adopting Rules

N/A Order Approving Incorporation by Reference

✓ Statement of Need and Reasonableness

N/A Petition for Adoption of a Rule

✓ Record (includes transcript or tape, exhibits, comments received by agency, requests for a hearing, and other relevant materials)
Affidavit of No comment Received

✓ Certificate of Compliance w/Rulemaking Procedures

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

N/A Notice of Submission to the Attorney General

SF-00006-03

STATE OF MINNESOTA

DEPARTMENT ATTORNEY GENERAL

Office Memorandum

TO: DUANE DAHLBERG, Chairperson
Pollution Control Agency

DATE: 11/5/85

ATTN: JOCELYN F. OLSON
Special Assistant Attorney General

FROM: MARTHA J. CASSERLY
Special Assistant Attorney General

PHONE: 296-4692

SUBJECT:

In the Matter of the Proposed Amendment of Hazardous Waste Rules Governing the Lists of Hazardous Wastes and the Management and Permitting of Hazardous Waste Facilities

The above-referenced rule has been approved as to its legality by the Attorney General on November 5, 1985.

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

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

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

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

MJC:pmf

Enclosures

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

Duane Harves
Chief Administrative Law Judge
Office of Administrative Hearings

HUBERT H. HUMPHREY, III
ATTORNEY GENERAL

STATE OF MINNESOTA

OFFICE OF THE ATTORNEY GENERAL

ST. PAUL 55155

ADDRESS REPLY TO:
ATTORNEY GENERAL'S OFFICE
POLLUTION CONTROL DIVISION
1935 WEST COUNTY ROAD B-2
ROSEVILLE, MN 55113
TELEPHONE: (612) 296-7342

October 23, 1985

Mr. Mike Miles
Assistant Attorney General
Office of the Attorney General
Administration Building
St. Paul, MN 55155

Re: Proposed Amendment of Rules Governing Lists of Hazardous Wastes and the Management and Permitting of Hazardous Waste Facilities, Minn. Rules Pts. 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045,0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7001.0560, 7001.0580, 7001,0590, 7001.0600, 7001.0610, and 7001.0620.

Dear Mr. Miles:

On October 22, 1985, the Minnesota Pollution Control Agency adopted amendments to the above-captioned rules governing lists of hazardous wastes and management and permitting of hazardous waste facilities. Enclosed for your review are the following:

1. Rules as adopted (original and three copies).

2. Order Adopting Rules (two copies).

3. Certificate of Agency's Resolution Adopting Rules.

4. Notice of intent to solicit outside opinion (9 S.R. 2385, April 22, 1985).

5. Affidavit Regarding Comments Received Pursuant to Notice of Intent to Solicit Outside Opinion.

6. Order for Notice of Intent to Adopt Amendments to Rules Without a Public Hearing.

7. Certificate of Agency's Authorizing Resolution.

8. Notice of Intent to Amend Rules Without A Public Hearing and rule amendments as proposed (10 S.R. 460, August 19, 1985).

9. Affidavit Regarding Comments Received Pursuant to Notice of Intent to Adopt Rule Without a Public Hearing.

10. Notice of Intent to Amend Rules Without a Public Hearing, as mailed.

11. Affidavit of Mailing, mailing list, and Certificate concerning mailing list.

12. Rule amendments as proposed.

13. Findings of Fact and Conclusions.

14. Statement of Need and Reasonableness.

15. Statement of Compliance with Rulemaking Procedures.

16. Affidavit Regarding Requests for Notification as to Submission of Rules to the Attorney General.

Very truly yours,

Jocelyn F. Olson

JOCELYN F. OLSON
Special Assistant
Attorney General

AG copy

Minnesota Pollution Control Agency

Adopted Rules Relating to Hazardous Waste, Dioxins and Aliphates

Rules as Adopted

7001.0560 GENERAL INFORMATION REQUIREMENTS FOR PART B OF APPLICATION.

Part B of the application must contain the following information:

A. to F. [Unchanged.]

G. A copy of the contingency plan required by part 7045.0466, including, if applicable, the specific information in parts 7045.0528, subpart 9 and 7045.0532, subpart 6.

H. to U. [Unchanged.]

7001.0580 PART B INFORMATION REQUIREMENTS FOR STORAGE OR TREATMENT TANKS.

Except as otherwise provided in part 7045.0528, subpart 1, if the applicant proposes to use tanks to store or treat hazardous waste, the applicant shall furnish the information designated in items A and B in addition to the information required by part 7001.0560:

A. [Unchanged.]

B. A description of the system to be used to contain the tank and any spills or releases of hazardous waste from the tank, demonstrating compliance with part 7045.0528, subpart 5, and where applicable, subpart 9, including at a minimum the following:

(1) to (3) [Unchanged.]

(4) provisions for preventing or managing run-on;

(5) the manner in which accumulated liquids can be removed to prevent overflow and can be analyzed to determine proper management of the removed liquids; and

(6) for tanks holding hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, a description of the system to detect

leaks and spills and how precipitation and run-on will be prevented from entering the detection system.

7001.0590 PART B INFORMATION REQUIREMENTS FOR SURFACE IMPOUNDMENTS.

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

A. to J. [Unchanged.]

K. A waste management plan for hazardous waste F028 and treatment residues and soil contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, describing how the surface impoundment is or will be designed, constructed, operated, and maintained to meet the requirements of part 7045.0532, subpart 10. This plan must address the following items as specified in part 7045.0532, subpart 10:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

7001.0600 PART B INFORMATION REQUIREMENTS FOR WASTE PILES.

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

by part 7001.0560:

A. to K. [Unchanged.]

L. A waste management plan for hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, describing how a waste pile that is not enclosed is or will be designed, constructed, operated, and maintained to meet the requirements of part 7045.0534, subpart 10. This submission must address the following items as specified in part 7045.0534, subpart 10:

(1) the volume, physical, and chemical characteristics of the wastes to be disposed in the waste pile, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

7001.0610 PART B INFORMATION REQUIREMENTS FOR LAND TREATMENT.

Except as otherwise provided by part 7045.0536, subpart 1, if the applicant proposes to use land treatment to dispose of hazardous waste, the applicant shall furnish the information designated in items A to I in addition to the information required by part 7001.0560:

A. to H. [Unchanged.]

I. A waste management plan for hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, describing how a land treatment facility is or will be designed, constructed, operated, and maintained to meet the requirements of part 7045.0536, subpart 11. This plan must address the following items as specified in part 7045.0536, subpart 11:

(1) the volume, physical, and chemical

characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

7001.0620 PART B INFORMATION REQUIREMENTS FOR LANDFILLS.

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

A. to I. [Unchanged.]

J. A waste management plan for hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, describing how a landfill is or will be designed, constructed, operated, and maintained to meet the requirements of part 7045.0538, supbart 13. This plan must address the following items as specified in part 7045.0538, subpart 13:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

7045.0127 RESIDUES IN EMPTY CONTAINERS AND EMPTY INNER LINERS.

Subpart 1. [Unchanged.]

Subp. 2. **Empty containers or inner liners; definition.** A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste in part 7045.0135, subpart 2, 3, or 4, item E, is empty if:

A. to D. [Unchanged.]

Subp. 3. **Other empty containers or inner liners.** A container or inner liner that has held an acute hazardous waste identified in part 7045.0135, subpart 2, 3, or 4, item E is empty if:

A. to C. [Unchanged.]

Subp. 4. [Unchanged.]

7045.0135 LISTS OF HAZARDOUS WASTES.

Subpart 1. **General.** A waste is a hazardous waste if it is listed under subparts 2 to 5 unless it has been excluded from the list under part 7045.0075, subpart 2.

The basis for listing the classes or types of wastes listed in subparts 2 to 5 is indicated by employing one or more of the following hazard codes:

A. ignitable waste, (I);

B. corrosive waste, (C);

C. reactive waste, (R);

D. EP toxic waste, (E);

E. acute hazardous waste, (H); and

F. toxic waste, (T).

The constituent which caused the agency to list the waste as an EP toxic waste (E) or toxic waste (T) in subparts 2 and 3 is identified in part 7045.0139.

Each listed hazardous waste is assigned a hazardous waste number which precedes the name of the waste. This number must be used in complying with the disclosure requirements of parts 7045.0205 to 7045.0304 and certain record keeping and reporting requirements under parts 7045.0205 to 7045.1030 and the agency's permitting procedures in chapter 7001.

The following hazardous wastes listed in subparts 2 and 3

are subject to the exclusion limits for acutely hazardous wastes established in part 7045.0219: Hazardous Waste Numbers F020, F021, F022, F023, F026, and F027.

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

Hazardous Waste No.	Hazardous Waste	Hazard Code
Generic:		
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons, and sludges from the recovery of these solvents in degreasing operations	(T)
F002 to F006	[Unchanged.]	
F007 to F012	[Unchanged.]	
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum	(T)
F020	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-tri-chlorophenol.	(H)
F021	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- and tetrachlorophenols. This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol.	(H)
F024	Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor cleanout wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five,	(T)

utilizing free radical catalyzed processes. This does not include light ends, spent filters and filter aids, spent dessicants, wastewater, wastewater treatment sludges, and spent catalysts.

F026 Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzene under alkaline conditions. (H)

F027 Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component. (H)

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

Subp. 3. [Unchanged.]

Subp. 4. **Discarded commercial chemical products, off-specification species, containers, and spill residues.** The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded:

A. to E. [Unchanged.]

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

Hazardous Wastes from Commercial Chemical Products

Hazardous Waste No.	Substance	Hazard Code
U001	Acetaldehyde	(I)
to	[Unchanged.]	
U185	Pentachloronitrobenzene	
U186	1,3-Pentadiene	(I)
to	[Unchanged.]	
U170	Phenol, 4-nitro-	

U137	1,10-(1,2-Phenylene)pyrene		
to	[Unchanged.]		
U162	2-Propenoic acid, 2-methyl-, methyl ester,		(I,T)
U194	n-Propylamine		(I,T)
to	[Unchanged.]		
U015	L-Serine, diazoacetate (ester)		
U089	4,4'-Stilbenediol, alpha,alpha'-diethyl-		
to	[Unchanged.]		
U205	Sulfur selenide		(R,T)
U207	1,2,4,5-Tetrachlorobenzene		
U208	1,1,1,2-Tetrachloroethane		
U209	1,1,2,2-Tetrachloroethane		
U210	Tetrachloroethylene		
U213	Tetrahydrofuran		(I)
to	[Unchanged.]		
U121	Trichloromonofluoromethane		
U234	sym-Trinitrobenzene		(R,T)
to	[Unchanged.]		
U200	Yohimban-16-carboxylic acid, 11, 17-di-methoxy-18-[(3,4,5-trimethoxy-benzoyl)oxy]-, methyl ester,		
U249	Zinc phosphide when present at concentrations of ten percent or less		

Subp. 5. [Unchanged.]

7045.0139 BASIS FOR LISTING HAZARDOUS WASTES.

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

Basis for Listing Hazardous Wastes

Hazardous Waste No.	Hazardous Constituents For Which Listed
F001	Tetrachloroethylene, methylene chloride, trichloro-ethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons
to	[Unchanged.]
F019	Hexavalent chromium, cyanide (complexed)
F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
F021	Penta- and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives
F022	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans
F023	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts

F024 Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1,2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorobenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, napthalene

F026 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans

F027 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts

F028 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts

K001 Pentachlorophenol, phenol, 2-chlorophenol, p-chlo phenols, tetrachlorophe chrysene, naphthalene, fluoranthene, benzo(b)fluoranth benzo(a)pyrene, indeno (1,2,3,cd)pyrene, benz(a)-anthracene, dibenz(a)anthracene, acenaphthalene

to [Unchanged.]

K106 Mercury

7045.0141 HAZARDOUS CONSTITUENTS.

Hazardous constituents are as follows:

Acetonitrile
to [Unchanged.]
Chlorobenzilate
2-Chloro-1,3-butadiene (chloroprene)
p-Chloro-m-cresol
to [Unchanged.]
1-(o-Chlorophenyl)thiourea
3-Chloropropene (allyl chloride)
3-Chloropropionitrile
to [Unchanged.]
Hexachlorocyclopentadiene
Hexachlorodibenzo-p-dioxins
Hexachlorodibenzofurans
Hexachloroethane
to [Unchanged.]
Pentachlorobenzene
Pentachlorodibenzo-p-dioxins
Pentachlorodibenzofurans
Pentachloroethane
to [Unchanged.]
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
Tetrachlorodibenzo-p-dioxins not otherwise specified in this list
Tetrachlorodibenzofurans
Tetrachloroethane not otherwise specified in this list
to [Unchanged.]

Zinc phosphide

7045.0219 SPECIAL REQUIREMENTS FOR SMALL QUANTITY GENERATORS OF HAZARDOUS WASTE.

Subpart 1. **Applicability; quantities.** A generator is a small quantity generator subject to the requirements of subparts 2 to 6 if, in a calendar month, he generates less than:

A. a total of 1,000 kilograms of hazardous waste not listed as acute hazardous waste in part 7045.0135, subpart 2, 3, or 4, item E; and

B. a total of one kilogram of acute hazardous waste listed in part 7045.0135, subpart 2, 3, or 4, item E; and

C. a total of 100 kilograms of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in part 7045.0135, subpart 2, 3, or 4, item E.

Subp. 2. to 6. [Unchanged.]

7045.0526 USE AND MANAGEMENT OF CONTAINERS.

Subpart 1. to 5. [Unchanged.]

Subp. 6. **Containment.** Requirements for containment systems are as follows:

A. to C. [Unchanged.]

D. Except as provided by item E, storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by item A if:

(1) the storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation; or

(2) the containers are elevated or are otherwise protected from contact with accumulated liquid.

E. Storage areas that store containers holding wastes F020, F021, F022, F023, F026, F027, and F028 from part 7045.0135, subpart 2 that do not contain free liquids must have a containment system defined by item A.

Subp. 7. to 9. [Unchanged.]

7045.0528 TANKS.

Subpart 1. to 3. [Unchanged.]

Subp. 4. **Inspections.** The following apply to inspections:

A. and B. [Unchanged.]

C. As part of the contingency plan required under parts 7045.0464 to 7045.0470, the owner or operator must specify:

(1) the procedures he or she intends to use to respond to tank spills or leakage, including procedures and timing for expeditious removal of leaked or spilled waste and repair of the tank. As required in part 7045.0452, subpart 5, item D, the owner or operator shall remedy any leak, crack, or wall thinning in violation of subpart 2, or equipment or process malfunction in violation of subpart 3, which he or she discovers during inspection; and

(2) for tanks holding wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, the contingency plan must also include the procedures for responding to a spill or leak of these wastes from tanks into the containment system. These procedures shall include measures for immediate removal of the waste from the system and replacement or repair of the leaking tank.

Subp. 5. to 8. [Unchanged.]

Subp. 9. **Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028.** In addition to the other requirements of subparts 1 to 8, the following requirements apply to tanks storing or treating hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2:

A. Tanks must have systems designed and operated to detect and adequately contain spills or leaks that reflect consideration of all relevant factors, including:

(1) the capacity of the tank;

(2) the volumes and characteristics of wastes stored or treated in the tank;

(3) the method of collection of spills or leaks;

(4) the design and construction materials of the

tank and containment system; and

(5) the need to prevent precipitation and run-on from entering into the system.

B. As part of the contingency plan required under parts 7045.0464 to 7045.0470, the owner or operator must specify those procedures for responding to a spill or leak from the tank into the containment system that may be necessary to protect human health and the environment, including measures for immediate removal of the waste from the system and replacement or repair of the leaking tank.

7045.0532 SURFACE IMPOUNDMENTS.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste, except as part 7045.0450 provides otherwise.

Subp. 2. to 9. [Unchanged.]

Subp. 10. **Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028.** The following requirements apply to the hazardous wastes indicated:

A. Hazardous waste F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must not be placed in a surface impoundment.

B. Hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, must not be placed in surface impoundments unless the owner or operator operates the surface impoundment in accordance with all applicable requirements of this part and in accordance with a management plan that is approved by the director considering the following factors:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

C. The director shall impose additional design, operating, and monitoring requirements if the director finds that additional requirements are necessary for surface impoundments used to treat, store, or dispose of hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

7045.0534 WASTE PILES.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that store or treat hazardous waste in piles, except as part 7045.0450 provides or as otherwise provided in this subpart.

The requirements of this part do not apply to owners or operators of waste piles that are closed with wastes left in place. Such waste piles are subject to regulation under part 7045.0538.

The owner or operator of a waste pile that is inside or under a structure that provides protection from precipitation so that neither run-off nor leachate is generated is not subject to subparts 2, items A and B; 3; or part 7045.0484 if:

A. to D. [Unchanged.]

Subp. 2. to 9. [Unchanged.]

Subp. 10. **Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028.** The following requirements apply to the hazardous wastes indicated:

A. Hazardous wastes F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must not be placed in waste piles.

B. Hazardous waste F028 and treatment residues and

soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, must not be placed in waste piles that are not enclosed as provided by subpart 1, unless the owner or operator operates the waste pile in accordance with all applicable requirements of this part and in accordance with a management plan for these wastes that is approved by the director considering the following factors:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

C. The director shall impose additional design, operating, and monitoring requirements if the director determines that the additional requirements are necessary for piles used to store or treat hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

7045.0536 LAND TREATMENT.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that treat or dispose of hazardous waste in land treatment units except as part 7045.0450 provides otherwise.

Subp. 2. to 10. [Unchanged.]

Subp. 11. **Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028.** The following requirements apply to the hazardous wastes indicated:

A. Hazardous wastes F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must not be placed in a land treatment unit.

B. Hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 must not be managed at land treatment units unless the owner or operator operates the land treatment unit in accordance with all applicable requirements of this part and in accordance with a management plan that is approved by the director considering the following factors:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

C. The director shall impose additional design, operating, and monitoring requirements if the director finds that the additional requirements are necessary for land treatment facilities used to treat or dispose of hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

7045.0538 LANDFILLS.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that dispose of hazardous waste in landfills, except as part 7045.0450 provides otherwise.

Subp. 2. to 12. [Unchanged.]

Subp. 13. **Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028.** The following requirements apply to the hazardous wastes indicated:

A. Hazardous wastes F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must not be placed in a landfill.

B. Hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, must not be managed at landfills unless the owner or operator operates the landfill in accordance with all applicable requirements of this part and in accordance with a management plan that is approved by the director considering the following factors:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

C. The director shall impose additional design, operating, and monitoring requirements if the director finds that the additional requirements are necessary for landfills used to dispose of hazardous waste F028 and treatment residues and soil contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

7045.0542 THERMAL TREATMENT.

Subpart 1. to 3. [Unchanged.]

Subp. 4. **Performance standards.** A thermal treatment

facility thermally treating hazardous waste must be designed, constructed, and maintained so that, when operated in accordance with operating requirements specified under subpart 6 it will comply with all federal and state air quality rules and regulations and will meet the performance standards of items A to E, whichever are applicable:

A. Except as provided in item E, a thermal treatment facility thermally treating hazardous waste must achieve a destruction and removal efficiency of 99.99 percent for each principal organic hazardous constituent designated in its permit for each waste feed. The destruction and removal efficiency (DRE) is determined for each principal organic hazardous constituent from the following equation:

$$DRE = \frac{(Win - Wout)}{Win} \times 100\%$$

where:

Win = Mass feed rate of one principal organic hazardous constituent in the waste stream feeding the thermal treatment process, and

Wout = Mass emission rate of the same principal organic hazardous constituent present in exhaust emissions prior to release to the atmosphere.

B. to D. [Unchanged.]

E. A thermal treatment facility thermally treating hazardous wastes F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must achieve a destruction and removal efficiency ("DRE") of 99.9999 percent for each principal organic hazardous constituent designated in its permit. This performance must be demonstrated on principal organic hazardous constituents that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each principal organic hazardous constituent from the equation in item A. In addition, the owner or operator of the thermal treatment facility must notify the director of the intent to burn waste F020, F021, F022, F023, F026, or F027.

Subp. 5. to 9. [Unchanged.]

7045.0552 FACILITIES GOVERNED BY INTERIM STATUS.

Subpart 1. to 3. [Unchanged.]

Subp. 4. **Restrictions.** Hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 must not be managed at facilities governed by interim status unless:

A. the wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;

B. the waste is stored in tanks or containers; or

C. the waste is stored or treated in waste piles that are enclosed in accordance with part 7045.0534, subpart 1 and comply with all other provisions of part 7045.0534.

STATE OF MINNESOTA
DEPARTMENT OF STATE
FILED
NOV 5 1985
Joan Anderson Growe
Secretary of State
10:30AM

APPROVED AS TO FORM AND LEGALITY
November 5 1985
HUBERT H. HUMPHREY, III
ATTORNEY GENERAL
BY M J Cassedy
SPECIAL ASSISTANT ATTORNEY GENERAL

Rules as Proposed

7001.0560 GENERAL INFORMATION REQUIREMENTS FOR PART B OF APPLICATION.

Part B of the application must contain the following information:

A. to F. [Unchanged.]

G. A copy of the contingency plan required by part 7045.0466, including, if applicable, the specific information ~~set forth~~ in ~~part~~ parts 7045.0528, subpart 9 and 7045.0532, subpart 6.

H. to U. [Unchanged.]

7001.0580 PART B INFORMATION REQUIREMENTS FOR STORAGE OR TREATMENT TANKS.

Except as otherwise provided in part 7045.0528, subpart 1, if the applicant proposes to use tanks to store or treat hazardous waste, the applicant shall furnish the information designated in items A and B in addition to the information required by part 7001.0560:

A. [Unchanged.]

B. A description of the system to be used to contain the tank and any spills or releases of hazardous waste from the tank, demonstrating compliance with part 7045.0528, subpart 5, and where applicable, subpart 9, including at a minimum the following:

(1) to (3) [Unchanged.]

(4) provisions for preventing or managing run-on; ~~and~~

(5) the manner in which accumulated liquids can be removed to prevent overflow and can be analyzed to determine proper management of the removed liquids; and

(6) for tanks holding hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, a description of the system to detect leaks and spills and how precipitation and run-on will be prevented from entering the detection system.

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7001.0590 PART B INFORMATION REQUIREMENTS FOR SURFACE IMPOUNDMENTS.

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

A. to J. [Unchanged.]

K. A waste management plan for hazardous waste F028 and treatment residues and soil contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, describing how the surface impoundment is or will be designed, constructed, operated, and maintained to meet the requirements of part 7045.0532, subpart 10. This plan must address the following items as specified in part 7045.0532, subpart 10:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

7001.0600 PART B INFORMATION REQUIREMENTS FOR WASTE PILES.

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

A. to K. [Unchanged.]

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L. A waste management plan for hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, describing how a waste pile that is not enclosed is or will be designed, constructed, operated, and maintained to meet the requirements of part 7045.0534, subpart 10. This submission must address the following items as specified in part 7045.0534, subpart 10:

(1) the volume, physical, and chemical characteristics of the wastes to be disposed in the waste pile, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

7001.0610 PART B INFORMATION REQUIREMENTS FOR LAND TREATMENT.

Except as otherwise provided by part 7045.0536, subpart 1, if the applicant proposes to use land treatment to dispose of hazardous waste, the applicant shall furnish the information designated in items A to H I in addition to the information required by part 7001.0560:

A. to H. [Unchanged.]

I. A waste management plan for hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, describing how a land treatment facility is or will be designed, constructed, operated, and maintained to meet the requirements of part 7045.0536, subpart 11. This plan must address the following items as specified in part 7045.0536, subpart 11:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the

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atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

7001.0620 PART B INFORMATION REQUIREMENTS FOR LANDFILLS.

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

A. to I. [Unchanged.]

J. A waste management plan for hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, describing how a landfill is or will be designed, constructed, operated, and maintained to meet the requirements of part 7045.0538, supbart 13. This plan must address the following items as specified in part 7045.0538, subpart 13:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

7045.0127 RESIDUES IN EMPTY CONTAINERS AND EMPTY INNER LINERS.

Subpart 1. [Unchanged.]

Subp. 2. Empty containers or inner liners; definition. A

container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste in part 7045.0135, subpart 2, 3, or 4, item ~~E~~ E, is empty if:

A. to D. [Unchanged.]

Subp. 3. **Other empty containers or inner liners.** A container or inner liner that has held a an acute hazardous waste identified in part 7045.0135, subpart 2, 3, or 4, item E is empty if:

A. to C. [Unchanged.]

Subp. 4. [Unchanged.]

7045.0135 LISTS OF HAZARDOUS WASTES.

Subpart 1. **General.** A waste is a hazardous waste if it is listed under subparts 2 to 5 unless it has been excluded from the list under part 7045.0075, subpart 2.

The basis for listing the classes or types of wastes listed in subparts 2 to 5 is indicated by employing one or more of the following hazard codes:

A. ignitable waste, (I);

B. corrosive waste, (C);

C. reactive waste, (R);

D. EP toxic waste, (E);

E. acute hazardous waste, (H); and

F. toxic waste, (T).

The constituent which caused the agency to list the waste as an EP toxic waste (E) or toxic waste (T) in subparts 2 and 3 is identified in part 7045.0139.

Each listed hazardous waste is assigned a hazardous waste number which precedes the name of the waste. This number must be used in complying with the disclosure requirements of parts 7045.0205 to 7045.0304 and certain record keeping and reporting requirements under parts 7045.0205 to 7045.1030 and the agency's permitting procedures in chapter 7001.

The following hazardous wastes listed in subparts 2 and 3 are subject to the exclusion limits for acutely hazardous wastes established in part 7045.0219: Hazardous Waste Numbers F020,

F021, F022, F023, F026, and F027.

Subp. 2. **Hazardous wastes from nonspecific sources.**

Hazardous wastes from nonspecific sources are listed as follows:

Hazardous Waste No.	Hazardous Waste	Hazard Code
Generic:		
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons, and sludges from the recovery of these solvents in degreasing operations	(T)
F002 to F006	[Unchanged.]	
~~F019~~	~~Wastewater treatment sludges from the chemical conversion coating of aluminum~~	~~(T)~~
F007 to F012	[Unchanged.]	
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum	(T)
F020	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-tri-chlorophenol.	(H)
F021	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- and tetrachlorophenols. This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol.	(H)
F024	Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor cleanout wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. This does	(T)

not include light ends, spent filters and filter aids, spent dessicants, wastewater, wastewater treatment sludges, and spent catalysts.

F026 Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzene under alkaline conditions. (H)

F027 Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component. (H)

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

Subp. 3. [Unchanged.]

Subp. 4. **Discarded commercial chemical products, off-specification species, containers, and spill residues.** The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded:

A. to E. [Unchanged.]

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

Hazardous Wastes from Commercial Chemical Products

Hazardous Waste No.	Substance	Hazard Code
U001	Acetaldehyde	(I)
to	[Unchanged.]	
U185	Pentachloronitrobenzene	
~~U242~~	~~Pentachlorophenol~~	
U186	1,3-Pentadiene	(I)
to	[Unchanged.]	
U170	Phenol, 4-nitro-	

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~~U242~~	~~Phenol, pentachloro-~~		
~~U212~~	~~Phenol, 2,3,4,6-tetrachloro-~~		
~~U230~~	~~Phenol, 2,4,5-trichloro-~~		
~~U231~~	~~Phenol, 2,4,6-trichloro-~~		
U137	1,10-(1,2-Phenylene)pyrene		
to	[Unchanged.]		
U162	2-Propenoic acid, 2-methyl-, methyl ester,		(I,T)
~~U233~~	~~Propionic acid, 2-(2,4,5-trichlorophenoxy)-~~		(I,T)
U194	n-Propylamine		
to	[Unchanged.]		
U015	L-Serine, diazoacetate (ester)		
~~U233~~	~~Silvex~~		
U089	4,4'-Stilbenediol, alpha,alpha'-diethyl-		
to	[Unchanged.]		
U205	Sulfur selenide		(R,T)
~~U232~~	~~2,4,5-T~~		
U207	1,2,4,5-Tetrachlorobenzene		
U208	1,1,1,2-Tetrachloroethane		
U209	1,1,2,2-Tetrachloroethane		
U210	Tetrachloroethylene		
~~U212~~	~~2,3,4,6-Tetrachlorophenol~~		(I)
U213	Tetrahydrofuran		
to	[Unchanged.]		
U121	Trichloromonofluoromethane		
~~U230~~	~~2,4,5-Trichlorophenol~~		
~~U231~~	~~2,4,6-Trichlorophenol~~		
~~U232~~	~~2,4,5-Trichlorophenoxyacetic acid~~		
U234	sym-Trinitrobenzene		(R,T)
to	[Unchanged.]		
U200	Yohimban-16-carboxylic acid, 11, 17-di-methoxy-18-[(3,4,5-trimethoxy-benzoyl)oxy]-, methyl ester,		
U249	Zinc phosphide when present at concentrations of ten percent or less		

Subp. 5. [Unchanged.]

7045.0139 BASIS FOR LISTING HAZARDOUS WASTES.

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

Basis for Listing Hazardous Wastes

Hazardous Waste No.	Hazardous Constituents For Which Listed
F001	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons
to	[Unchanged.]
F019	Hexavalent chromium, cyanide (complexed)
F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
F021	Penta- and hexachlorodibenzo-p-dioxins; penta- and

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hexachlorodibenzofurans; pentachlorophenol and its derivatives

F022 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans

F023 Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts

F024 Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1,2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorobenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, napthalene

F026 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans

F027 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts

F028 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts

K001 Pentachlorophenol, phenol, 2-chlorophenol, p-chlo
phenols, tetrachlorophe chrysene,
naphthalene, fluoranthene, benzo(b)fluoranth
benzo(a)pyrene, indeno (1,2,3,cd)pyrene, benz(a)-
anthracene, dibenz(a)anthracene, acenaphthalene

to [Unchanged.]

K106 Mercury

7045.0141 HAZARDOUS CONSTITUENTS.

Hazardous constituents are as follows:

Acetonitrile
to [Unchanged.]
Chlorobenzilate
2-Chloro-1,3-butadiene (chloroprene)
p-Chloro-m-cresol
to [Unchanged.]
1-(o-Chlorophenyl)thiourea
3-Chloropropene (allyl chloride)
3-Chloropropionitrile
to [Unchanged.]
Hexachlorocyclopentadiene
Hexachlorodibenzo-p-dioxins
Hexachlorodibenzofurans
Hexachloroethane

to [Unchanged.]
Pentachlorobenzene
Pentachlorodibenzo-p-dioxins
Pentachlorodibenzofurans
Pentachloroethane
to [Unchanged.]
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
Tetrachlorodibenzo-p-dioxins not otherwise specified in this list
Tetrachlorodibenzofurans
Tetrachloroethane not otherwise specified in this list
to [Unchanged.]
Zinc phosphide

7045.0219 SPECIAL REQUIREMENTS FOR SMALL QUANTITY GENERATORS OF HAZARDOUS WASTE.

Subpart 1. **Applicability; quantities.** A generator is a small quantity generator subject to the requirements of subparts 2 to 6 if, in a calendar month, he generates less than:

A. a total of 1,000 kilograms of hazardous waste not listed as acute hazardous waste in part 7045.0135, subpart 2, 3, or 4, item E; and

B. a total of one kilogram of ~~commercial chemical products and manufacturing chemical intermediates having the generic names~~ acute hazardous waste listed in part 7045.0135, subpart 2, 3, or 4, item E ~~and off specification commercial chemical products and manufacturing chemical intermediates which, if they met specification, would have the generic names listed in part 7045.0135, subpart 4, item E~~; and

C. a total of 100 kilograms of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any ~~commercial chemical products or manufacturing chemical intermediates having the generic names~~ acute hazardous waste listed in part 7045.0135, subpart 2, 3, or 4, item E~~, or any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any off specification commercial chemical products or manufacturing chemical intermediates which, if they met specification would have the generic names listed in part 7045.0135, subpart 4, item E~~.

Subp. 2. to 6. [Unchanged.]

7045.0526 USE AND MANAGEMENT OF CONTAINERS.

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Subpart 1. to 5. [Unchanged.]

Subp. 6. **Containment.** Requirements for containment systems are as follows:

A. to C. [Unchanged.]

D. Except as provided by item E, storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by item A if:

(1) the storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation; or

(2) the containers are elevated or are otherwise protected from contact with accumulated liquid.

E. Storage areas that store containers holding wastes F020, F021, F022, F023, F026, F027, and F028 from part 7045.0135, subpart 2 that do not contain free liquids must have a containment system defined by item A.

Subp. 7. to 9. [Unchanged.]

7045.0528 TANKS.

Subpart 1. to 3. [Unchanged.]

Subp. 4. **Inspections.** The following apply to inspections:

A. and B. [Unchanged.]

C. As part of the contingency plan required under parts 7045.0464 to 7045.0470, the owner or operator must specify:

(1) the procedures he or she intends to use to respond to tank spills or leakage, including procedures and timing for expeditious removal of leaked or spilled waste and repair of the tank. As required in part 7045.0452, subpart 5, item D, the owner or operator shall remedy any leak, crack, or wall thinning in violation of subpart 2, or equipment or process malfunction in violation of subpart 3, which he or she discovers during inspection; and

(2) for tanks holding wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, the contingency plan must also include the procedures for responding to a spill or leak of these wastes from tanks into the containment system. These procedures shall include measures

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for immediate removal of the waste from the system and replacement or repair of the leaking tank.

Subp. 5. to 8. [Unchanged.]

Subp. 9. **Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028.** In addition to the other requirements of subparts 1 to 8, the following requirements apply to tanks storing or treating hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2:

A. Tanks must have systems designed and operated to detect and adequately contain spills or leaks that reflect consideration of all relevant factors, including:

(1) the capacity of the tank;

(2) the volumes and characteristics of wastes stored or treated in the tank;

(3) the method of collection of spills or leaks;

(4) the design and construction materials of the tank and containment system; and

(5) the need to prevent precipitation and run-on from entering into the system.

B. As part of the contingency plan required under parts 7045.0464 to 7045.0470, the owner or operator must specify those procedures for responding to a spill or leak from the tank into the containment system that may be necessary to protect human health and the environment, including measures for immediate removal of the waste from the system and replacement or repair of the leaking tank.

7045.0532 SURFACE IMPOUNDMENTS.

Subpart 1. **Scope.** ~~The requirements of subparts 2 to 9~~ apply This part applies to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste, except as part 7045.0450 provides otherwise.

Subp. 2. to 9. [Unchanged.]

Subp. 10. **Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028.** The following requirements apply to the hazardous wastes indicated:

APPROVED IN THE REVISOR OF STATUTES OFFICE BY:

A. Hazardous waste F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must not be placed in a surface impoundment.

B. Hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, must not be placed in surface impoundments unless the owner or operator operates the surface impoundment in accordance with all applicable requirements of this part and in accordance with a management plan that is approved by the director considering the following factors:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

C. The director shall impose additional design, operating, and monitoring requirements if the director finds that additional requirements are necessary for surface impoundments used to treat, store, or dispose of hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

7045.0534 WASTE PILES.

Subpart 1. **Scope.** ~~The requirements of subparts 2 to 9~~ ~~apply~~ This part applies to owners and operators of facilities that store or treat hazardous waste in piles, except as part 7045.0450 provides or as otherwise provided in this subpart.

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The requirements of ~~subparts 2 to 9~~ this part do not apply to owners or operators of waste piles that are closed with wastes left in place. Such waste piles are subject to regulation under part 7045.0538.

The owner or operator of a waste pile that is inside or under a structure that provides protection from precipitation so that neither run-off nor leachate is generated is not subject to subparts 2, items A and B; 3; or part 7045.0484 if:

A. to D. [Unchanged.]

Subp. 2. to 9. [Unchanged.]

Subp. 10. **Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028.** The following requirements apply to the hazardous wastes indicated:

A. Hazardous wastes F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must not be placed in waste piles.

B. Hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, must not be placed in waste piles that are not enclosed as provided by subpart 1, unless the owner or operator operates the waste pile in accordance with all applicable requirements of this part and in accordance with a management plan for these wastes that is approved by the director considering the following factors:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

C. The director shall impose additional design, operating,

and monitoring requirements if the director determines that the additional requirements are necessary for piles used to store or treat hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

7045.0536 LAND TREATMENT.

Subpart 1. **Scope.** ~~The requirements of subparts 2 to 10 apply~~ This part applies to owners and operators of facilities that treat or dispose of hazardous waste in land treatment units except as part 7045.0450 provides otherwise.

Subp. 2. to 10. [Unchanged.]

Subp. 11. **Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028.** The following requirements apply to the hazardous wastes indicated:

A. Hazardous wastes F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must not be placed in a land treatment unit.

B. Hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 must not be managed at land treatment units unless the owner or operator operates the land treatment unit in accordance with all applicable requirements of this part and in accordance with a management plan that is approved by the director considering the following factors:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

C. The director shall impose additional design, operating, and monitoring requirements if the director finds that the additional requirements are necessary for land treatment facilities used to treat or dispose of hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

7045.0538 LANDFILLS.

Subpart 1. **Scope.** ~~The requirements of subparts 2 to 12 apply~~ This part applies to owners and operators of facilities that dispose of hazardous waste in landfills, except as part 7045.0450 provides otherwise.

Subp. 2. to 12. [Unchanged.]

Subp. 13. **Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028.** The following requirements apply to the hazardous wastes indicated:

A. Hazardous wastes F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must not be placed in a landfill.

B. Hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, must not be managed at landfills unless the owner or operator operates the landfill in accordance with all applicable requirements of this part and in accordance with a management plan that is approved by the director considering the following factors:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

APPROVED IN THE REVISOR OF STATUTES OFFICE BY:

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

C. The director shall impose additional design, operating, and monitoring requirements if the director finds that the additional requirements are necessary for landfills used to dispose of hazardous waste F028 and treatment residues and soil contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

7045.0542 THERMAL TREATMENT.

Subpart 1. to 3. [Unchanged.]

Subp. 4. **Performance standards.** A thermal treatment facility thermally treating hazardous waste must be designed, constructed, and maintained so that, when operated in accordance with operating requirements specified under subpart 6 it will comply with all federal and state air quality rules and regulations and will meet the performance standards of items A, B, ~~C, and D~~ to E, whichever are applicable:

A. Except as provided in item E, a thermal treatment facility thermally treating hazardous waste must achieve a destruction and removal efficiency of 99.99 percent for each principal organic hazardous constituent designated in its permit for each waste feed. The destruction and removal efficiency (DRE) is determined for each principal organic hazardous constituent from the following equation:

$$DRE = \frac{(Win - Wout)}{Win} \times 100\%$$

where:

Win = Mass feed rate of one principal organic hazardous constituent in the waste stream feeding the thermal treatment

APPROVED BY THE REVISOR OF STATUTES OFFICE BY:

process, and

Wout = Mass emission rate of the same principal organic hazardous constituent present in exhaust emissions prior to release to the atmosphere.

B. to D. [Unchanged.]

E. A thermal treatment facility thermally treating hazardous wastes F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must achieve a destruction and removal efficiency ("DRE") of 99.9999 percent for each principal organic hazardous constituent designated in its permit. This performance must be demonstrated on principal organic hazardous constituents that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each principal organic hazardous constituent from the equation in item A. In addition, the owner or operator of the thermal treatment facility must notify the director of the intent to burn waste F020, F021, F022, F023, F026, or F027.

Subp. 5. to 9. [Unchanged.]

7045.0552 FACILITIES GOVERNED BY INTERIM STATUS.

Subpart 1. to 3. [Unchanged.]

Subp. 4. **Restrictions.** Hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 must not be managed at facilities governed by interim status unless:

A. the wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;

B. the waste is stored in tanks or containers; or

C. the waste is stored or treated in waste piles that are enclosed in accordance with part 7045.0534, subpart 1 and comply with all other provisions of part 7045.0534.

OFFICE OF THE REVISOR OF STATUTES

Proposed Rule

RD761

Agency: Minnesota Pollution Control Agency

Division:

Agency Contact: Carol Rogers

Minnesota Rules: Parts 7001.0560; 7001.0580; 7001.0590; 7001.0600; 7001.0610; 7001.0620; 7045.0127; 7045.0135; 7045.0139; 7045.0219; 7045.0526; 7045.0528; 7045.0532; 7045.0534; 7045.0536; 7045.0538; 7045.0542; 7045.0552

Title: Proposed Rules Relating to Hazardous Waste, Dioxins and Aliphates

Type of Rules: Permanent

Incorporations by Reference: None

Steven C. Cross
Revisor of Statutes

David S. Niss
Assistant Revisor
Phone: 297-2948

Date: July 31, 1985

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Amendment of Hazardous Waste Rules Governing the Lists of Hazardous Wastes and the Management and Permitting of Hazardous Waste Facilities, Minn. Rules Pts. 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045.0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7001.0560, 7001.0580, 7001.0590, 7001.0600, 7001.0610, and 7001.0620

ORDER ADOPTING RULE AMENDMENTS

Notice of the Minnesota Pollution Control Agency's intent to adopt the above-entitled rule amendments without a public hearing was published in the State Register on August 19, 1985, (10 S.R. 460) and was sent by mail to all persons on the list maintained by the Agency pursuant to Minn. Stat. §14.14 (1984) on August 16, 1985. After affording interested and affected persons an opportunity to submit comments for 30 days after Notice, having received no comments during the comment period, and after determining the need for and reasonableness of the above-captioned rule amendments,

NOW, THEREFORE, IT IS ORDERED, that the attached amendments to Minnesota Rules Parts 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045,0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7001.0560, 7001.0580, 7001,0590, 7001.0600, 7001.0610, and 7001.0620, governing the lists of hazardous wastes and the management and permitting of hazardous waste facilities, are adopted pursuant to the authority

vested in the Minnesota Pollution Control Agency by Minn. Stat. 116.07, subd. 4 (1984).

Dated: October 22, 1985

DUANE DAHLBERG
Chairperson

THOMAS J. KALITOWSKI
Executive Director

rules. Interested or affected persons or groups may submit statements of information or comment in writing. Written statements should be addressed to:

Building Codes & Standards Division
408 Metro Square Building
7th & Robert Sts.
St. Paul, MN 55101

All statements of information and comments shall be accepted until June 1, 1985 at 4:30 p.m. Any written material received by the State Building Codes and Standards Division shall become part of the record in the event the rules are promulgated.

Richard A. Brooks, Director

Minnesota Pollution Control Agency
Solid and Hazardous Waste Division

Outside Opinion Sought Concerning Amendments to Minnesota Rules Chapter 7045 Governing Hazardous Waste

Notice is hereby given that the Minnesota Pollution Control Agency (MPCA) is seeking information and opinions from sources outside the MPCA regarding possible amendments to Minnesota Rules, Chapter 7045 governing hazardous waste.

Consideration is being given to the addition of dioxins, dibenzofurans and chlorinated aliphatic hydrocarbons to the lists of hazardous wastes and to the addition of special management requirements for the treatment, storage or disposal of dioxins and dibenzofurans. These amendments are considered in response to similar amendments to the federal hazardous waste regulations.

The MPCA requests information and comments concerning the subject matter of the proposed amendments. Written or oral information or comments will be accepted until May 15, 1985. Written statements should be addressed to: Karen A. Ryss, Minnesota Pollution Control Agency, Solid and Hazardous Waste Division, 1935 West County Road B2, Roseville, Minnesota, 55113. Oral statements will be received during regular business hours at 612/297-1793.

April 12, 1985

Thomas J. Kalitowski
Executive Director

Board of Vocational Technical Education

Notice of Public Hearing

A Public Hearing pursuant to M.S. 136C.28, Subd. 3, will be held for the purpose of post-secondary vocational aid allocations for F.Y. '85-'86. The hearing will be held on May 13, 1985, Radisson St. Paul Hotel, 11 East Kellogg Boulevard, St. Paul, Minnesota, at 9:00 a.m. For more information, contact Ronald Dreyer, 559 Capitol Square Building, 550 Cedar Street, St. Paul, Minnesota 55101, phone (612) 297-1477.

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Amendment of Hazardous Waste Rules Governing the Lists of Hazardous Wastes and the Management and Permitting of Hazardous Waste Facilities, Minn. Rules Pts. 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045,0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7001.0560, 7001.0580, 7001,0590, 7001.0600, 7001.0610, and 7001.0620

AFFIDAVIT REGARDING COMMENTS RECEIVED PURSUANT TO NOTICE OF INTENT TO SOLICIT OUTSIDE OPINION

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Karen Ryss, being duly sworn on oath deposes and says:

1. That she is the person named in the notice of intent to solicit outside opinion (9 S.R. 2385, April 22, 1985) as the person to receive information and comments on the Agency's intent to amend rules concerning the above-entitled subject.

3. That no comments were by the Agency pursuant to the notice of intent to solicit outside opinion.

Karen A. Ryss

Subscribed and sworn to before me
this 11th day of October, 1985.

Mary Ann Hammer
Notary Public

MARY ANN HAMMER
NOTARY PUBLIC - MINNESOTA
RAMSEY COUNTY
My Commission Expires Dec. 11, 1985

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Amendment of Hazardous Waste Rules Governing the Lists of Hazardous Wastes and the Management and Permitting of Hazardous Waste Facilities, Minn. Rules Pts. 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045,0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7045.0560, 7001.0580, 7001,0590, 7001.0600, 7001.0610, and 7001.0620

ORDER FOR NOTICE OF INTENT TO ADOPT AMENDMENTS TO RULES WITHOUT A PUBLIC HEARING

It is hereby ordered this 23rd day of July, 1985, that Notice of Intent to Adopt Amendments to Rules Without a Public Hearing in the above-entitled matter be given to all persons who have registered their names with the Minnesota Pollution Control Agency for that purpose and be published in the State Register.

Thomas Kalitowski

THOMAS J. KALITOWSKI
Executive Director

CERTIFICATE OF AGENCY'S AUTHORIZING RESOLUTION

I, Thomas J. Kalitowski, do hereby certify that I am the Executive Director of the Minnesota Pollution Control Agency, an agency duly authorized under the laws of the State of Minnesota, and that the following is a true, complete and correct copy of a resolution adopted at a meeting of the Minnesota Pollution Control Agency duly and properly called and held on the 23rd day of July, 1985, that a quorum was present at said meeting, that a majority of those present voted for the resolution and that said resolution will be set forth in the minutes of said meeting and has not been rescinded or modified.

BE IT RESOLVED, that the Executive Director of the Minnesota Pollution Control Agency (MPCA) is hereby granted the authority to sign an order of the MPCA directing that notice be given of the MPCA's intent to adopt, without a public hearing, the attached amendments to the MPCA's hazardous waste rules governing dioxin, dibenzofuran, and chlorinated aliphatic hydrocarbon wastes, Minn. Rules pts. 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045,0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, and 7045.0560, and the attached amendments to the MPCA permit rules, Minn. Rules pts. 7001.0580, 7001,0590, 7001.0600, 7001.0610, and 7001.0620, to sign the Notice thereof, and to perform any acts incidental thereto, including making any form changes in the rules that the Revisor of Statutes requires the MPCA to make in order to obtain the revisor's certification as required by Minn. Stat. Section 14.07, subd. 2 (1984).

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

IN WITNESS WHEREOF, I have hereunto subscribed my name this 23rd day of July, 1985.

Thomas Kalitowski

THOMAS J. KALITOWSKI
Executive Director

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Amendment of Hazardous Waste Rules Governing the Lists of Hazardous Wastes and the Management and Permitting of Hazardous Waste Facilities, Minn. Rules Pts. 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045.0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7001.0560, 7001.0580, 7001.0590, 7001.0600, 7001.0610, and 7001.0620

NOTICE OF INTENT TO ADOPT AMENDMENTS TO RULES WITHOUT A PUBLIC HEARING

Notice is hereby given that the Minnesota Pollution Control Agency (Agency) intends to adopt without a public hearing, in accordance with the provisions of Minn. Stat. §§14.22 - 14.28 (1984), amendments to Minn. Rules Parts 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045.0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7001.0560, 7001.0580, 7001.0590, 7001.0600, 7001.0610, and 7001.0620, rules governing lists of hazardous wastes and the management and permitting of hazardous waste facilities.

The proposed amendments, if adopted, will add dioxin and dibenzofuran to the lists of hazardous wastes and specify additional management requirements for these wastes. Processing of dioxin and dibenzofuran containing wastes prior to disposal will be required and the management of dioxin and dibenzofuran containing wastes at interim status thermal treatment facilities will be prohibited. A classification of wastes containing chlorinated aliphatic hydrocarbons is also being added to the lists of hazardous wastes. The proposed amendments are based on recent amendments to U.S. Environmental Protection Agency hazardous waste regulations. The proposed rule amendments are authorized by Minn. Stat. §116.07, subd. 4 (1984). One free copy of the rule amendments is available on request from the Agency. Please contact the person whose name and address appears below.

The Agency has prepared a Statement of Need and Reasonableness that describes the need for and reasonableness of each provision of the proposed rule amendments and identifies the data and information relied upon by the Agency to support the proposed amendments. Copies of the Statement of Need and Reasonableness and of the proposed amendments are available and may be obtained by contacting:

Karen Ryss
Minnesota Pollution Control Agency
1935 West County Road B-2
Roseville, Minnesota 55113
Telephone: (612) 297-1793

Interested persons have until 4:30 p.m. on September 20, 1985, to submit comments on the proposed rule amendments. Comments should be submitted to Karen Ryss at the address stated above. The proposed rule amendments may be modified if the data and views received by the Agency before the end of the comment period warrant modification and the modification does not result in a substantial change in the proposed amendments.

Unless the Agency receives twenty-five written requests for a public hearing on the proposed rule amendments during the comment period, a public hearing will not be held. In the event that a public hearing is required, the Agency will proceed according to the provisions of Minn. Stat. §§14.131 - 14.20 (1984), as amended by Minn. Laws 1985, First Special Session, ch. 10, §38. If a person desires to request a public hearing, the Agency requests that the person identify the particular provisions objected to, the suggested modifications to the proposed language, and the reasons and data relied on to support the suggested modifications.

Upon adoption of the amendments by the Agency Board, the rules as proposed, this notice, the Statement of Need and Reasonableness, all written comments received, and the final rule amendments as adopted will be sent to the Attorney General for review as to form and legality, including the issue of substantial change. Persons who wish to be advised of the submission of this material to the Attorney General, or who wish to receive a copy of the final amendments as adopted, should submit a written statement of such request to Karen Ryss at the address previously stated.

You are hereby advised, pursuant to Minn. Stat. §14.115 (1984), "Small business considerations in rulemaking," that the proposed amendments will affect those small businesses that generate hazardous waste containing dioxin or dibenzofuran or operate facilities for the treatment, storage, or disposal of hazardous waste containing dioxin or dibenzofuran. The amendments will require additional management of these wastes because of their potential for adverse effects on human health and the environment. These additional requirements will increase the cost to generators and facility operators due to the need to treat wastes before disposal or to transport wastes to facilities where they can be acceptably managed.



THOMAS J. KALITOWSKI
Executive Director

Dated: August 15, 1985

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Amendment of Hazardous Waste Rules Governing the Lists of Hazardous Wastes and the Management and Permitting of Hazardous Waste Facilities, Minn. Rules Pts. 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045.0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7001.0560, 7001.0580, 7001.0590, 7001.0600, 7001.0610, and 7001.0620

AFFIDAVIT OF MAILING

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Penny Nickles, being duly sworn, deposes and says:

That on the 16 day of August, 1985, at the City of Roseville, County of Ramsey, State of Minnesota, s/he served the attached Notice of Intent to Adopt Amendments to Rules Without a Public Hearing by depositing in the State of Minnesota Central Mail System or in the United States mail for first class mailing at said City of Roseville, a copy thereof, properly enveloped, with postage prepaid, on all persons and associations who have requested that their names be placed on file with the Pollution Control Agency for the purpose of receiving notice of the proposed adoption of rules by the Pollution Control Agency.

Penny Nickles

Subscribed and sworn to before me this 20th day of August, 1985.

Margaret Frank
Notary Public

MARGARET FRANK
NOTARY PUBLIC - MINNESOTA
RAMSEY COUNTY
My Commission Expires Sept 26, 1985

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Amendment of Hazardous Waste Rules Governing the Lists of Hazardous Wastes and the Management and Permitting of Hazardous Waste Facilities, Minn. Rules Pts. 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045.0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7001.0560, 7001.0580, 7001.0590, 7001.0600, 7001.0610, and 7001.0620

CERTIFICATE

I hereby certify that the list of persons, associations and other interested groups who have requested, pursuant to Minn. Stat. §14.14 (1984), that their names be placed on file with the the Minnesota Pollution Control Agency (Agency) for the purpose of receiving notice of the proposed adoption of rules by the Agency is accurate and complete as of 3:00 p.m., this 16th day of Aug., 1985.

Paul W. Hoff

A T & T
1 South Wacker Drive, Room 13J
Chicago, IL 60606
Attn: B. Durkin

A. J. Vetsch, Inc.
3919 Marion Road
Rochester, MN 55904
Attn: Allen Vetsch

Advance Circuit Inc.
15102 Minnetonka Ind. Rd.
Minnetonka, MN 55345
Attn: D. J. Berg

Advance Circuits Inc.
560 - 16th Avenue South
Hopkins, MN 55454

Advance Circuits, Inc.
1633 Terrace Drive
Roseville, MN 55113

Advance Circuits, Inc.
1633 Terrace Drive
Roseville, MN 55113
Attn: Farook Meeh

Alan Shilepsky Consulting
19 South First Street, Suite B2507
Minneapolis, MN 55401
Attn: Alan Shilepsky

Albert, Lee
Post Office Box 64355
St. Paul, MN 55164

American Chemical Service
Post Office Box 190
Griffith, IN 46319
Attn: W. S. Wagoner Jr.

American Insurance Association
Stolpestad, Brown and Smith, P.A.
2000 N. Central Life Tower, 445 MN St.
St. Paul, MN 55101
Jeffrey A. Redmon

Anchor Glass Container Corporation
4108 Valley Ind. Blvd. N.
P.O. Box 69
Shakopee, MN 55379
Attn: B. K. Meierbachtol

Ashland Petroleum Company
Post Office Box 391
Ashland, KY 41114
Attn: Bruce Churton

Atwater McMillian Inc.
445 Minnesota Street, Suite 900
St. Paul, MN 55101
Attn: Kae Scott

Auto Body Supply
2841 Anthony Lane
Minneapolis, MN 55418
Attn: Tony Kramer

Badger Foundry Company
Post Office Box 1306
Winona, MN 55987
Attn: Barry Owen

Barth, Carole Ann
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Berg Oil
Post Office Box 333
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Attn: Conrad Berg

Big Dipper Enterprises, Inc.
1016 - 11th Avenue South
Wahpeton, ND 58075
Attn: John Beardmore

Briggs and Morgan
2200 First National Bank Building
St. Paul, MN 55101
Attn: Ann Huntrods

Bureau of Engraving, Inc.
3311 Broadway, Northeast
Minneapolis, MN 55413
Attn: Kenneth Ische/Steve Meyers

C. W. Olson, Inc.
Post Office Box 231
Minneapolis, MN 55440
Attn: John Mackenzie

California Dept. of Health Services
744 P Street
Sacramento, CA 95814
Attn: Eric Workman

Capsule Environmental Engineering
4765 Kent Street
Shoreview, MN 55112
Attn: David Cushman

Chemlawn
6300 Shingle Creek Parkway, #125
Brooklyn Center, MN 55430
Attn: John Peckham

Circuit Chemistry Corp.
1570 Halgren Road
Maple Plain, MN 55359
Attn: Jim Czaja

Circuit Service, Corp.
9805 Hamilton Road
Eden Prairie, MN 55344
Attn: John Foster

City of Bloomington
2215 West Old Shakopee Road
Bloomington, MN 55431
Attn: J. K. Nelson

City of Fridley
6431 University Avenue Northeast
Fridley, MN 55432
Attn: John Flora

City of Redwood Falls
404 East Wyoming
Redwood Falls, MN 56283
Attn: Neil Ruddy

Commercial Pumping and Incineration
9948 Express Drive
Highland, IN 46322
Attn: Allice Erskine

Conklin Company, Inc.
551 Valley Park Drive
Shakopee, MN 55379
Attn: Lawrence Bass

Consolidated Container Corporation
735 North 3rd Street
Minneapolis, MN 55401
Attn: Jon Stein

Continental Machines, Inc.
5505 West 123rd Street
Savage, MN 55378
Attn: Jack Hosford

Control Data Corporation
Post Office Box 0
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Attn: Bob Kaiser HQN7KX

Dakota County
1600 Highway 55
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DeZurik Corporation
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Attn: Lee Walz

Dorsey and Whitney
2200 First Bank Place East
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E. A. Hickok and Associates
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Wayzata, MN 55391
Attn: John Lichter

E/M Lubricants, Inc.
Post Office Box 2200
W. Lafayette, IN 47906
Attn: Gregory Keough

Earth Energy Systems, Inc.
225 South Cordova Avenue
LeCenter, MN 56057
Attn: Joe Appelhof

Eaton, Corporation
Hydraulics Division
15151 Highway 5
Eden Prairie, MN 55344
Attn: Marvin Miller

Economics Laboratory, Inc.
Osborn Building
St. Paul, MN 55102
Attn: Charles McDuff

Economics Laboratory, Inc.
Osborn Building
St. Paul, MN 55102
Attn: John Keenan

Electric Equipment Service Corp.
7281 Commerce Circle West
Fridley, MN 55432
Attn: Brian Sjoberg

Electro Mold Corporation
616 Industrial Boulevard
Minneapolis, MN 55413
Attn: Ken Dutton

Envirite Corporation
Bluebell, PA 19422
Attn: Bill Howard

Envirite Corporation
16435 South Center Avenue
Harvey, IL 60426
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Environmental Engineering and Management, Ltd.
7400 Metro Boulevard, #400
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Environmental Research Group, Inc.
135 State Street
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Environmental Transportation Services
Post Office Box 36118
Oklahoma City, OK 73136
Attn: Scarlett Perkins

Etchit, Inc.
643-13th Avenue South
Hopkins, MN 55343
Attn: Richard Dunn

Ex-Cell-O Corporation
2855 Coolidge
Troy, MI 48084
Attn: Terence Filipiak

Federal Cartridge Corporation
9th and Tyler
Anoka MN 55303
Attn: Luke Davich

Federal Cartridge Corporation
9th and Tyler
Anoka, MN 55303
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Finishing Equipment, Inc.
3640 Kennebec Drive
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Attn: Win Sabatka

FMC Corp., Northern Ordinance
4800 East River Road
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Attn: William Warren

FMC Corp., Northern Ordinance
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Ford Motor Company
15201 Century Drive
Dearborn, MI 48120
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Fort McCoy
Commander, AFZR-DEH-E
Sparta, WI 54656
Attn: Robert Starck

Franklin Manufacturing
701 33rd Avenue North
St. Cloud, MN 56301
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G.S.X. Services Inc.
Post Office Box 370
Laurel, MD 20707
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General Battery Corporation
654 Penn Street, P.O. Box 1262
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General Mills, Inc.
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Attn: Donald J. Thimsen

GNB, Incorporated
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Graco, Inc.
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Great Lakes Gas Transmission Co.
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Gresen Mfg./Div. of Dana Corporation
600 Hoover Street
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H. B. Fuller Company
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Attn: The Honorable Jeff Spartz

Hennepin County Department
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Hennepin Cty. Government Center, A1603
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Koppers Building
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Attn: Merlin Clausen

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Attn: John Profaizer

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Attn: Gary Christiansen/Jack Pirkl

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St. Paul, MN 55155
Attn: John Dustman

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Minnesota Service Station Association
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National Association of
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National Association of
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Northern Natural Gas Company
7901 Xerxes Avenue South, #209
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Attn: T. D. Humason

Northern States Power Company
Env. and Reg. Act. Dept.
414 Nicollet Mall
Minneapolis, MN 55401
Attn: R. D. Clough

Northern States Power Company
414 Nicollet Mall
Minneapolis, MN 55402
Attn: Pamela Graika

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Route 1, Box 210X
Paynesville, MN 56362
Attn: John Nyhlen

Otter Tail Power Company
215 South Cascade
Fergus Falls, MN 56537
Attn: Terry Graumann

Outdoors Committee
Box 88
Longville, MN 56655
Attn: James Shields

Outdoors Committeee
485 Rice Street
St. Paul, MN 55103
Attn: James Shields

Peerless Chain Company
1416 East Sanborn
Winona, MN 55987
Attn: Orville Broch

Pillsbury Company
Pillsbury Center, #3612
Minneapolis, MN 55402
Attn: Carl Smith

Plews Division, Parker-Hannifin Corp.
Bush Boulevard
Granite Falls, MN 56241
Attn: Robin Spaude

Pope-Reid Associates, Inc.
245 East 6th Street, #813
St. Paul, MN 55101
Attn: Robert Reid

Popham, Haik, Schnobrich, Kaufman
and Doty, Ltd.
4344 IDS Center
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Attn: James A. Payne

Portable Elevator Company
Post Office Box 160
Glencoe, MN 55336
Attn: Dale Johnson

PPG Industries, Inc.
260 Kappa Drive
Pittsburgh, PA 15238
Attn: Christine Babka

Purex Corporation
24600 South Main Street
Carson, CA 90749
Attn: John Dougherty C-20

Quandt Transport Service, Inc.
2606 North 11th Street
Omaha, Nebraska 686110
Attn: Karen Copeland

Rexnord Chemical Products Inc.
7711 Computer Avenue
Minneapolis, MN 55435
Attn: Lawrence Benjamin

Richard Manufacturing, Co.
6250 Bury Drive
Eden Prairie, MN 55344
Attn: Matthew Broms

S. B. Foot Tanning Co., Red Wing, MN
Post Office Box 745
Dumas, TX 79029
Attn: David Guthe

Safety-Kleen Corporation
777 Big Timber Road
Elgin, IL 60120
Attn: Ellen Jurczak

Saint Mary's Hospital
1216-2nd Street, Southwest
Rochester, MN 55902
Attn: Clyde Douglass

Saint Mary's Hospital
Safety and Security
1216 - 2nd Street Southwest
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Attn: Alan Knutson

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Review Committee
27466 Delmar Avenue
New Prague, MN 56071
Attn: DeAnn Croatt

Scott County, Planning,
Inspections & Environmental Health
428 South Holmes Street
Shakopee, MN 55379
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Laboratories, Inc.
1931 West County Road C2
St. Paul, MN 55113
Attn: Gerald Allen

Sheldahl, Inc.
Post Office Box 170
Northfield, MN 55057
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Sierra Club/Project Environment
2929 4th Avenue South
Minneapolis, MN 55408
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Smith System Manufacturing Co.
1100 South 10th Street
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Soil Exploration Company
662 Cromwell Avenue
St. Paul, MN 55114
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Solv-Oil Service and Supply Company
Box 338
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Southern Minnesota Sugar Cooperative
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Renville, MN 56284
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Sperry Corporation
Semiconductor Operations
Post Office Box 64724, M.S. H2R27
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SPRTC
100 Freeman Avenue
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St. John's Hospital
403 Maria Avenue
St. Paul, MN 55106
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Standard Solvents Company
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4906 France Avenue North
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Stock Brothers Corporation
22077 Mound Road
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Stone Container Corporation
3805 Presidential Parkway, #101
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Tapemark Company
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West St. Paul, MN 55118
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Telex Communications, Inc.
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Van Hoven Company, Inc.
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Ver-Tech Inc.
13225 Industrial Park Boulevard
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Victory Envelope
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Warden Oil Inc.
187 Humboldt Avenue North
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Washington County Community
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Watkins, Inc.
150 Liberty Street
Winona, MN 55987
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Watt/Peterson, Inc.
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Proposed Rules Relating to Hazardous Waste, Dioxins and Aliphates

Proposed Amendments to Rules Governing the Lists of Hazardous Wastes and the Management and Permitting of Hazardous Waste Facilities, Minn. Rules Pts. 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045.0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7001.0560, 7001.0580, 7001.0590, 7001.0600, 7001.0610, and 7001.0620.

Notice of Intent to Adopt Amendments to Rules without a Public Hearing

Notice is hereby given that the Minnesota Pollution Control Agency (Agency) intends to adopt without a public hearing, in accordance with the provisions of Minn. Stat. §§ 14.22-14.28 (1984), amendments to Minn. Rules Parts 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045.0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7001.0560, 7001.0580, 7001.0590, 7001.0600, 7001.0610, and 7001.0620, rules governing lists of hazardous wastes and the management and permitting of hazardous waste facilities.

The proposed rule amendments are authorized by Minn. Stat. § 116.07, subd. 4 (1984). The proposed rule amendments are published below. One free copy of the rule amendments is available on request from the Agency. Please contact the person whose name and address appears below.

The Agency has prepared a Statement of Need and Reasonableness that describes the need for and reasonableness of each provision of the proposed rule amendments and identifies the data and information relied upon by the Agency to support the proposed amendments. Copies of the Statement of Need and Reasonableness and of the proposed amendments are available and may be obtained by contacting:

Karen Ryss
Minnesota Pollution Control Agency
1935 West County Road B-2
Roseville, Minnesota 55113
Telephone: (612) 297-1793

Interested persons have until 4:30 p.m. on September 20, 1985, to submit comments on the proposed rule amendments. Comments should be submitted to Karen Ryss at the address stated above. The proposed rule amendments may be modified if the data and views received by the Agency before the end of the comment period warrant modification and the modification does not result in a substantial change in the proposed amendments.

Unless the Agency receives twenty-five written requests for a public hearing on the proposed rule amendments during the comment period, a public hearing will not be held. In the event that a public hearing is required, the Agency will proceed according to the provisions of Minn. Stat. §§ 14.131-14.20 (1984), as amended by Minn. Laws 1985, First Special Session, ch. 10, § 38. If a person desires to request a public hearing, the Agency requests that the person identify the particular provisions objected to, the suggested modifications to the proposed language, and the reasons and data relied on to support the suggested modifications.

Upon adoption of the amendments by the Agency Board, the rules as proposed, this notice, the Statement of Need and Reasonableness, all written comments received, and the final rule amendments as adopted will be sent to the Attorney General for review as to form and legality, including the issue of substantial change. Persons who wish to be advised of the submission of this material to the Attorney General, or who wish to receive a copy of the final amendments as adopted, should submit a written statement of such request to Karen Ryss at the address previously stated.

You are hereby advised, pursuant to Minn. Stat. § 14.115 (1984), "Small business considerations in rulemaking," that the proposed amendments will affect those small businesses that generate hazardous waste containing dioxin or dibenzofuran or operate facilities for the treatment, storage, or disposal of hazardous waste containing dioxin or dibenzofuran. The amendments will require additional management of these wastes because of their potential for adverse effects on human health and the environment. These additional requirements will increase the cost to generators and facility operators due to the need to treat wastes before disposal or to transport wastes to facilities where they can be acceptably managed.

Thomas J. Kalitowski
Executive Director

Rules as Proposed

7001.0560 GENERAL INFORMATION REQUIREMENTS FOR PART B OF APPLICATION.

Part B of the application must contain the following information:

A. to F. [Unchanged.]

G. A copy of the contingency plan required by part 7045.0466, including, if applicable, the specific information ~~set forth~~ in ~~part~~ parts 7045.0528, subpart 9 and 7045.0532, subpart 6.

H. to U. [Unchanged.]

7001.0580 PART B INFORMATION REQUIREMENTS FOR STORAGE OR TREATMENT TANKS.

Except as otherwise provided in part 7045.0528, subpart 1, if the applicant proposes to use tanks to store or treat hazardous waste, the applicant shall furnish the information designated in items A and B in addition to the information required by part 7001.0560:

A. [Unchanged.]

B. A description of the system to be used to contain the tank and any spills or releases of hazardous waste from the tank, demonstrating compliance with part 7045.0528, subpart 5, and where applicable, subpart 9, including at a minimum the following:

(1) to (3) [Unchanged.]

(4) provisions for preventing or managing run-on; ~~and~~

(5) the manner in which accumulated liquids can be removed to prevent overflow and can be analyzed to determine proper management of the removed liquids; and

(6) for tanks holding hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, a description of the system to detect leaks and spills and how precipitation and run-on will be prevented from entering the detection system.

7001.0590 PART B INFORMATION REQUIREMENTS FOR SURFACE IMPOUNDMENTS.

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

A. to J. [Unchanged.]

K. A waste management plan for hazardous waste F028 and treatment residues and soil contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, describing how the surface impoundment is or will be designed, constructed, operated, and maintained to meet the requirements of part 7045.0532, subpart 10. This plan must address the following items as specified in part 7045.0532, subpart 10:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

7001.0600 PART B INFORMATION REQUIREMENTS FOR WASTE PILES.

Except as otherwise provided by part 7045.0532, subpart 1, if the applicant proposes to store or treat hazardous waste in waste piles, the applicant shall furnish the information required by items A to ~~K~~ L in addition to the information required by part 7001.0560:

A. to K. [Unchanged.]

L. A waste management plan for hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, describing how a waste pile that is not enclosed is or will be designed, constructed, operated, and maintained to meet the requirements of part 7045.0534, subpart 10. This submission must address the following items as specified in part 7045.0534, subpart 10:

(1) the volume, physical, and chemical characteristics of the wastes to be disposed in the waste pile, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

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(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

7001.0610 PART B INFORMATION REQUIREMENTS FOR LAND TREATMENT.

Except as otherwise provided by part 7045.0536, subpart 1, if the applicant proposes to use land treatment to dispose of hazardous waste, the applicant shall furnish the information designated in items A to ~~H~~ I in addition to the information required by part 7001.0560:

A. to H. [Unchanged.]

I. A waste management plan for hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, describing how a land treatment facility is or will be designed, constructed, operated, and maintained to meet the requirements of part 7045.0536, subpart 11. This plan must address the following items as specified in part 7045.0536, subpart 11:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

7001.0620 PART B INFORMATION REQUIREMENTS FOR LANDFILLS.

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

A. to I. [Unchanged.]

J. A waste management plan for hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, describing how a landfill is or will be designed, constructed, operated, and maintained to meet the requirements of part 7045.0538, subpart 13. This plan must address the following items as specified in part 7045.0538, subpart 13:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

7045.0127 RESIDUES IN EMPTY CONTAINERS AND EMPTY INNER LINERS.

Subpart 1. [Unchanged.]

Subp. 2. Empty containers or inner liners; definition. A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste in part 7045.0135, subpart 2, 3, or 4, item ~~C~~ E, is empty if:

A. to D. [Unchanged.]

Subp. 3. Other empty containers or inner liners. A container or inner liner that has held ~~a~~ an acute hazardous waste identified in part 7045.0135, subpart 2, 3, or 4, item E is empty if:

A. to C. [Unchanged.]

Subp. 4. [Unchanged.]

7045.0135 LISTS OF HAZARDOUS WASTES.

Subpart 1. General. A waste is a hazardous waste if it is listed under subparts 2 to 5 unless it has been excluded from the list under part 7045.0075, subpart 2.

The basis for listing the classes or types of wastes listed in subparts 2 to 5 is indicated by employing one or more of the following hazard codes:

A. ignitable waste, (I);

B. corrosive waste, (C);

C. reactive waste, (R);

D. EP toxic waste, (E);

E. acute hazardous waste, (H); and

F. toxic waste, (T).

The constituent which caused the agency to list the waste as an EP toxic waste (E) or toxic waste (T) in subparts 2 and 3 is identified in part 7045.0139.

Each listed hazardous waste is assigned a hazardous waste number which precedes the name of the waste. This number must be used in complying with the disclosure requirements of parts 7045.0205 to 7045.0304 and certain record keeping and reporting requirements under parts 7045.0205 to 7045.1030 and the agency's permitting procedures in chapter 7001.

The following hazardous wastes listed in subparts 2 and 3 are subject to the exclusion limits for acutely hazardous wastes established in part 7045.0219: Hazardous Waste Numbers F020, F021, F022, F023, F026, and F027.

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

Hazardous Waste No.	Hazardous Waste	Hazard Code
Generic:		
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons, and sludges from the recovery of these solvents in degreasing operations	(T)
F002 to F006	[Unchanged.]	
~~F019~~	~~Wastewater treatment sludges from the chemical conversion coating of aluminum~~	~~(T)~~
F007 to F012	[Unchanged.]	
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum	(T)
F020	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-tri-chlorophenol.	(H)
F021	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- and tetrachlorophenols. This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol.	(H)
F024	Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor cleanout wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utiliz- ;	(T)

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ing free radical catalyzed processes. This does not include light ends, spent filters and filter aids, spent dessicants, wastewater, wastewater treatment sludges, and spent catalysts.

F026	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with hazardous waste Nos. F020, F021, F022, F023, F026, and F027.	(T)

Subp. 3. [Unchanged.]

Subp. 4. Discarded commercial chemical products, off-specification species, containers, and spill residues. The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded:

A. to E. [Unchanged.]

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

Hazardous Wastes from Commercial Chemical Products

Hazardous Waste No.	Substance	Hazard Code
U001	Acetaldehyde	(I)
to	[Unchanged.]	
U185	Pentachloronitrobenzene	
~~U242~~	~~Pentachlorophenol~~	(I)
U186	1,3-Pentadiene	
to	[Unchanged.]	
U170	Phenol, 4-nitro-	
~~U242~~	~~Phenol, pentachloro-~~	
~~U212~~	~~Phenol, 2,3,4,6-tetrachloro-~~	
~~U230~~	~~Phenol, 2,4,5-trichloro-~~	
~~U231~~	~~Phenol, 2,4,6-trichloro-~~	
U137	1,10-(1,2-Phenylene)pyrene	
to	[Unchanged.]	(I,T)
U162	2-Propenoic acid, 2-methyl-, methyl ester,	
~~U233~~	~~Propionic acid, 2-(2,4,5-trichlorophenoxy)-~~	(I,T)
U194	n-Propylamine	
to	[Unchanged.]	
U015	L-Serine, diazoacetate (ester)	
~~U233~~	~~Silvex~~	
U089	4,4′-Stilbenediol, alpha,alpha′-diethyl-	
to	[Unchanged.]	(R,T)
U205	Sulfur selenide	
~~U232~~	~~2,4,5-T~~	
U207	1,2,4,5-Tetrachlorobenzene	
U208	1,1,1,2-Tetrachloroethane	
U209	1,1,2,2-Tetrachloroethane	
U210	Tetrachloroethylene	
~~U212~~	~~2,3,4,6-Tetrachlorophenol~~	

U213	Tetrahydrofuran	(I)
to	[Unchanged.]	
U121	Trichloromonofluoromethane	
~~U230~~	~~2,4,5 Trichlorophenol~~	
~~U231~~	~~2,4,6 Trichlorophenol~~	
~~U232~~	~~2,4,5 Trichlorophenoxyacetic acid~~	
U234	sym-Trinitrobenzene	(R,T)
to	[Unchanged.]	
U200	Yohimban-16-carboxylic acid, 11, 17-di-methoxy-18-[(3,4,5-trimethoxy-benzoyl)oxy]-, methyl ester,	
U249	Zinc phosphide when present at concentrations of ten percent or less	

Subp. 5. [Unchanged.]

7045.0139 BASIS FOR LISTING HAZARDOUS WASTES.

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

Basis for Listing Hazardous Wastes

Hazardous Waste No.	Hazardous Constituents For Which Listed
F001	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons
to	[Unchanged.]
F019	Hexavalent chromium, cyanide (complexed)
F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
F021	Penta- and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives
F022	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans
F023	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
F024	Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1,2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorobenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene
F026	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans
F027	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachloropehnols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
F028	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine, and other salts
K001	Pentachlorophenol, phenol, 2-chlorophenol, p-chlophenols, tetrachlorophe chrysene, naphthalene, fluoranthene, benzo(b)fluoranth benzo(a)pyrene, indeno (1,2,3,cd)pyrene, benz(a)-anthracene, dibenz(a)anthracene, acenaphthalene
to	[Unchanged.]
K106	Mercury

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7045.0141 HAZARDOUS CONSTITUENTS.

Hazardous constituents are as follows:

Acetonitrile
to [Unchanged.]
Chlorobenzilate
2-Chloro-1,3-butadiene (chloroprene)
p-Chloro-m-cresol
to [Unchanged.]
1-(p-Chlorophenyl)thiourea
3-Chloropropene (allyl chloride)
3-Chloropropionitrile
to [Unchanged.]
Hexachlorocyclopentadiene
Hexachlorodibenzo-p-dioxins
Hexachlorodibenzofurans
Hexachloroethane
to [Unchanged.]
Pentachlorobenzene
Pentachlorodibenzo-p-dioxins
Pentachlorodibenzofurans
Pentachloroethane
to [Unchanged.]
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
Tetrachlorodibenzo-p-dioxins not otherwise specified in this list
Tetrachlorodibenzofurans
Tetrachloroethane not otherwise specified in this list
to [Unchanged.]
Zinc phosphide

7045.0219 SPECIAL REQUIREMENTS FOR SMALL QUANTITY GENERATORS OF HAZARDOUS WASTE.

Subpart 1. Applicability; quantities. A generator is a small quantity generator subject to the requirements of subparts 2 to 6 if, in a calendar month, he generates less than:

A. a total of 1,000 kilograms of hazardous waste not listed as acute hazardous waste in part 7045.0135, subpart 2, 3, or 4, item E; and

B. a total of one kilogram of ~~commercial chemical products and manufacturing chemical intermediates having the generic names~~ acute hazardous waste listed in part 7045.0135, subpart 2, 3, or 4, item E ~~and off specification commercial chemical products or manufacturing chemical intermediates which, if they met specifications would have the generic names listed in part 7045.0135, subpart 4, item E~~; and

C. a total of 100 kilograms of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any ~~commercial chemical products or manufacturing chemical intermediates having the generic names~~ acute hazardous waste listed in part 7045.0135, subpart 2, 3, or 4, item E~~, or any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any off specification commercial chemical products or manufacturing chemical intermediates which, if they met specification would have the generic names listed in part 7045.0135, subpart 4, item E~~.

Subp. 2. to 6. [Unchanged.]

7045.0526 USE AND MANAGEMENT OF CONTAINERS.

Subpart 1. to 5. [Unchanged.]

Subp. 6. Containment. Requirements for containment systems are as follows:

A. to C. [Unchanged.]

D. Except as provided by item E, storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by item A if:

(1) the storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation; or

(2) the containers are elevated or area otherwise protected from contact with accumulated liquid.

E. Storage areas that store containers holding wastes F020, F021, F022, F023, F026, F027, and F028 from part 7045.0135, subpart 2 that do not contain free liquids must have a containment system defined by item A.

Subp. 7. to 9. [Unchanged.]

7045.0528 TANKS.

Subpart 1. to 3. [Unchanged.]

Subp. 4. Inspections. The following apply to inspections:

A. and B. [Unchanged.]

C. As part of the contingency plan required under parts 7045.0464 to 7045.0470, the owner or operator must specify:

(1) the procedures he or she intends to use to respond to tank spills or leakage, including procedures and timing for expeditious removal of leaked or spilled waste and repair of the tank. As required in part 7045.0452, subpart 5, item D, the owner or operator shall remedy any leak, crack, or wall thinning in violation of subpart 2, or equipment or process malfunction in violation of subpart 3, which he or she discovers during inspection; and

(2) for tanks holding wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, the contingency plan must also include the procedures for responding to a spill or leak of these wastes from tanks into the containment system. These procedures shall include measures for immediate removal of the waste from the system and replacement or repair of the leaking tank.

Subp. 5. to 8. [Unchanged.]

Subp. 9. Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028. In addition to the other requirements of subparts 1 to 8, the following requirements apply to tanks storing or treating hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2:

A. Tanks must have systems designed and operated to detect and adequately contain spills or leaks that reflect consideration of all relevant factors, including:

(1) the capacity of the tank;

(2) the volumes and characteristics of wastes stored or treated in the tank;

(3) the method of collection of spills or leaks;

(4) the design and construction materials of the tank and containment system; and

(5) the need to prevent precipitation and run-on from entering into the system.

B. As part of the contingency plan required under parts 7045.0464 to 7045.0470, the owner or operator must specify those procedures for responding to a spill or leak from the tank into the containment system that may be necessary to protect human health and the environment, including measures for immediate removal of the waste from the system and replacement or repair of the leaking tank.

7045.0532 SURFACE IMPOUNDMENTS.

Subpart 1. Scope. ~~The requirements of subparts 2 to 9 apply~~ This part applies to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste, except as part 7045.0450 provides otherwise.

Subp. 2. to 9. [Unchanged.]

Subp. 10. Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028. The following requirements apply to the hazardous wastes indicated:

A. Hazardous waste F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must not be placed in a surface impoundment.

B. Hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, must not be placed in surface impoundments unless the owner or

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operator operates the surface impoundment in accordance with all applicable requirements of this part and in accordance with a management plan that is approved by the director considering the following factors:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

C. The director shall impose additional design, operating, and monitoring requirements if the director finds that additional requirements are necessary for surface impoundments used to treat, store, or dispose of hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

7045.0534 WASTE PILES.

Subpart 1. Scope. ~~The requirements of subparts 2 to 9 apply~~ This part applies to owners and operators of facilities that store or treat hazardous waste in piles, except as part 7045.0450 provides or as otherwise provided in this subpart.

The requirements of ~~subparts 2 to 9~~ this part do not apply to owners or operators of waste piles that are closed with wastes left in place. Such waste piles are subject to regulation under part 7045.0538.

The owner or operator of a waste pile that is inside or under a structure that provides protection from precipitation so that neither run-off nor leachate is generated is not subject to subparts 2, items A and B; 3; or part 7045.0484 if:

A. to D. [Unchanged.]

Subp. 2. to 9. [Unchanged.]

Subp. 10. Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028. The following requirements apply to the hazardous wastes indicated:

A. Hazardous wastes F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must not be placed in waste piles.

B. Hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, must not be placed in waste piles that are not enclosed as provided by subpart 1, unless the owner or operator operates the waste pile in accordance with all applicable requirements of this part and in accordance with a management plan for these wastes that is approved by the director considering the following factors:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

C. The director shall impose additional design, operating, and monitoring requirements if the director determines that the additional requirements are necessary for piles used to store or treat hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

7045.0536 LAND TREATMENT.

Subpart 1. Scope. ~~The requirements of subparts 2 to 10 apply~~ This part applies to owners and operators of facilities that treat or dispose of hazardous waste in land treatment units except as part 7045.0450 provides otherwise.

Subp. 2. to 10. [Unchanged.]

Subp. 11. Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028. The following requirements apply to the hazardous wastes indicated:

A. Hazardous wastes F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must not be placed in a land treatment unit.

B. Hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023,

F026, F027, and F028 listed under part 7045.0135, subpart 2 must not be managed at land treatment units unless the owner or operator operates the land treatment unit in accordance with all applicable requirements of this part and in accordance with a management plan that is approved by the director considering the following factors:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

C. The director shall impose additional design, operating, and monitoring requirements if the director finds that the additional requirements are necessary for land treatment facilities used to treat or dispose of hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

7045.0538 LANDFILLS.

Subpart 1. Scope. ~~The requirements of subparts 2 to 12 apply~~ This part applies to owners and operators of facilities that dispose of hazardous waste in landfills, except as part 7045.0450 provides otherwise.

Subp. 2. to 12. [Unchanged.]

Subp. 13. Special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028. The following requirements apply to the hazardous wastes indicated:

A. Hazardous wastes F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must not be placed in a landfill.

B. Hazardous waste F028 and treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2, must not be managed at landfills unless the owner or operator operates the landfill in accordance with all applicable requirements of this part and in accordance with a management plan that is approved by the director considering the following factors:

(1) the volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) the attenuative properties of underlying and surrounding soils or other materials;

(3) the mobilizing properties of other materials codisposed with these wastes; and

(4) the effectiveness of additional treatment, design, or monitoring techniques.

C. The director shall impose additional design, operating, and monitoring requirements if the director finds that the additional requirements are necessary for landfills used to dispose of hazardous waste F028 and treatment residues and soil contaminated with hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

7045.0542 THERMAL TREATMENT.

Subpart 1. to 3. [Unchanged.]

Subp. 4. Performance standards. A thermal treatment facility thermally treating hazardous waste must be designed, constructed, and maintained so that, when operated in accordance with operating requirements specified under subpart 6 it will comply with all federal and state air quality rules and regulations and will meet the performance standards of items A~~, B, C, and D~~ to E, whichever are applicable:

A. Except as provided in item E, a thermal treatment facility thermally treating hazardous waste must achieve a destruction and removal efficiency of 99.99 percent for each principal organic hazardous constituent designated in its permit for each waste feed.

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

The destruction and removal efficiency (DRE) is determined for each principal organic hazardous constituent from the following equation:

$$DRE = \frac{(Win - Wout)}{Win} + 100\%$$

where:

Win = Mass feed rate of one principal organic hazardous constituent in the waste stream feeding the thermal treatment process, and

Wout = Mass emission rate of the same principal organic hazardous constituent present in exhaust emissions prior to release to the atmosphere.

B. to D. [Unchanged.]

E. A thermal treatment facility thermally treating hazardous wastes F020, F021, F022, F023, F026, and F027 listed under part 7045.0135, subpart 2 must achieve a destruction and removal efficiency ("DRE") of 99.9999 percent for each principal organic hazardous constituent designated in its permit. This performance must be demonstrated on principal organic hazardous constituents that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each principal organic hazardous constituent from the equation in item A. In addition, the owner or operator of the thermal treatment facility must notify the director of the intent to burn waste F020, F021, F022, F023, F026, or F027.

Subp. 5. to 9. [Unchanged.]

7045.0552 FACILITIES GOVERNED BY INTERIM STATUS.

Subpart 1. to 3. [Unchanged.]

Subp. 4. Restrictions. Hazardous wastes F020, F021, F022, F023, F026, F027, and F028 listed under part 7045.0135, subpart 2 must not be managed at facilities governed by interim status unless:

A. the wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;

B. the waste is stored in tanks or containers; or

C. the waste is stored or treated in waste piles that are enclosed in accordance with part 7045.0534, subpart 1 and comply with all other provisions of part 7045.0534.

Public Utilities Commission

Proposed Rules Governing the Conservation Improvement and Renewable Resource Programs

Notice of Intent to Adopt Rules without a Public Hearing

Notice is hereby given that the Minnesota Public Utilities Commission proposes to adopt the above-entitled rule without a public hearing following the procedures set forth in Minnesota Statutes, section 14.22 to 14.28. The specific statutory authority to adopt the rule is Minnesota Statutes 216B.08.

Persons interested in this rule shall have 30 days in which to submit comment in support of or in opposition to the proposed rule or any part or subpart of the rule and comment is encouraged. Each comment should identify the portion of the proposed rule addressed, the reason for the comment, and any change proposed.

Any person may make a written request for a public hearing on the rule within the 30-day comment period. If 25 or more persons submit a written request for a public hearing within the 30-day comment period, a public hearing will be held unless a sufficient number withdraw their request. Any person requesting a public hearing should state his or her name and address, and is encouraged to identify the portion of the proposed rule addressed, the reason for the request, and any change proposed. If a public hearing is required, the agency will proceed pursuant to Minnesota Statutes, sections 14.131 to 14.20.

Persons who wish to submit comments or a written request for a public hearing must submit such comments or requests to:

Paul Schweizer
Public Utilities Commission
780 American Center Building
Kellogg and Robert Streets
St. Paul, Minnesota 55101
612/296-7125

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Amendment of Hazardous Waste Rules Governing the Lists of Hazardous Wastes and the Management and Permitting of Hazardous Waste Facilities, Minn. Rules Pts. 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045.0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7001.0560, 7001.0580, 7001.0590, 7001.0600, 7001.0610, and 7001.0620

FINDINGS OF FACT AND CONCLUSIONS

The above-entitled matter came on for decision before the Minnesota Pollution Control Agency (Agency) on the 22nd day of October, 1985. After affording all interested persons the opportunity to present written and oral data, statements and arguments to the Agency, in accordance with statutory requirements regarding the adoption of noncontroversial rules, after considering the Statement of Need and Reasonableness, after considering all of the evidence adduced upon the records, files and proceedings herein, the Agency, being fully advised in the premises, hereby adopts the following Findings of Fact and Conclusions.

FINDINGS OF FACT

1. The Agency published its notice of intent to adopt the above-captioned rule amendments, together with the proposed rule amendments, in the State Register on August 19, 1985 (10 S.R. 460).

2. On August 16, 1985, the Agency gave the same notice by mail to all persons who have registered their names with the Agency pursuant to Minn. Stat. §14.14 (1984).

3. The notice of the Agency's intent to amend the rules afforded all interested persons 30 days to submit data and views on the proposed rules. The notice was in all respects in compliance with the requirements of Minn. Stat. §14.22 (1984).

4. The Agency prepared a Statement of Need and Reasonableness and made it available to the public upon the date of mailing of the notice of intent to adopt the rules.

5. The 30 day comment period, as set out in the notice, expired on September 20, 1985.

6. During the comment period, the Agency received no written comments.

7. The Agency adopts the Statement of Need and Reasonableness, in its entirety, as the factual basis for the amendments to the rules. The Agency hereby incorporates the Statement of Need and Reasonableness into these findings.

CONCLUSIONS

1. The Minnesota Pollution Control Agency duly acquired and has jurisdiction over this proceeding.

2. The Agency published and served due, timely and adequate notice of the intent to adopt amendments to the rules without a public hearing.

3. All relevant legal and procedural requirements of statute

and rule have been complied with.

MINNESOTA POLLUTION CONTROL AGENCY

Duane A Dahlberg

Duane Dahlberg
Chairperson

Thomas Kalitowski

Thomas J. Kalitowski
Executive Director

Dated: October 22, 1985

CERTIFICATE OF AGENCY'S RESOLUTION ADOPTING RULE AMENDMENTS

I, Thomas J. Kalitowski, do hereby certify that I am the Executive Director of the Minnesota Pollution Control Agency, an agency duly authorized under the laws of the State of Minnesota, and that the following is a true, complete and correct copy of a resolution adopted at a meeting of the Minnesota Pollution Control Agency duly and properly called and held on the 22nd day October, 1985, that a quorum was present at said meeting, that a majority of those present voted for the resolution and that said resolution will be set forth in the minutes of said meeting and has not been rescinded or modified.

BE IT RESOLVED, that the Minnesota Pollution Control Agency (MPCA) hereby approves and adopts the amendments to the MPCA's hazardous waste rules governing dioxin, dibenzofuran, and chlorinated aliphatic hydrocarbon wastes, Minn. Rules pts. 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045.0534, 7045.0536, 7045.0538, 7045.0542, and 7045.0552, and the amendments to the MPCA permit rules, Minn. Rules pts. 7001.0560, 7001.0580, 7001,0590, 7001.0600, 7001.0610, and 7001.0620, pursuant to the authority vested in the MPCA by Minn. Stat. §116.07, subd. 4 (1984).

BE IT FURTHER RESOLVED, that prior to publishing the rules as adopted in the State Register, the Executive Director is authorized to make any form changes in the rules that the Revisor of Statues requires the MPCA to make in order to obtain the Revisor's Certificate as required by Minnesota Statutes §14.07, subd. 2 (1984).

BE IT FURTHER RESOLVED, that the MPCA adopts the attached Findings of Fact and Conclusions and attached Order Adopting Rule Amendments and that the Chairperson and Executive Director are hereby authorized to execute the above-mentioned documents on behalf of the MPCA.

IN WITNESS WHEREOF, I have hereunto subscribed my name this October 22, 1985.

Thom Kalitowski

THOMAS J. KALITOWSKI
Executive Director

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed
Amendment of Hazardous Waste
Rules Governing the Lists of
Hazardous Wastes and the
Management and Permitting of
Hazardous Waste Facilities,
Minn. Rules Pts. 7045.0127,
7045.0135, 7045.0139, 7045.0141,
7045.0219, 7045.0526, 7045.0528,
7045.0532, 7045.0534, 7045.0536,
7045.0538, 7045.0542, 7045.0552
7001.0560, 7001.0580, 7001.0590,
7001.0600, 7001.0610, and 7001.0620

STATEMENT OF NEED

AND REASONABLENESS

I. INTRODUCTION

The subject of this proceeding is the revision of rules of the Minnesota Pollution Control Agency (hereinafter "Agency") governing: the lists of hazardous wastes, Minn. Rules pts. 7045.0135, 7045.0139 and 7045.0141; management requirements, Minn. Rules pts. 7045.0127, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045.0534, 7045.0536, 7045.0538, 7045.0542, and 7045.0552; and permit information requirements for hazardous waste facilities, Minn. Rules pts. 7001.0560, 7001.0580, 7001.0590, 7001.0600, 7001.0610, and 7001.0620. These rules are proposed for amendment pursuant to the Agency's authority under Minn. Stat. § 116.07, subd. 4 (1984).

The proposed amendments to the Agency's rules add certain wastes to the lists of hazardous waste and also specify management requirements for these wastes. The amendments also amend supporting rules affected by the additional listings.

This statement of need and reasonableness is divided into several parts. Part II contains the Agency's explanation of the need for the proposed amendments. Part III contains the Agency's explanation of the reasonableness of the proposed amendments. Pursuant to the requirements of Minn. Stat. § 14.115 (1984),

Part IV documents how the Agency has considered the methods of reducing the impact of the proposed amendments on small businesses. Part VI contains a reference to the exhibits relied on by the Agency to support the proposed amendments. The exhibits are available for review at the Agency's office at 1935 West County Road B-2, Roseville, Minnesota 55113.

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

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

Need is a broad test that does not easily lend itself to an evaluation of each proposed revision. In this broad sense the need for amendments to the Agency's rules has two bases: the need for consistency with the federal hazardous waste regulations concerning the regulation of wastes containing dioxins, dibenzofurans and chlorinated aliphatic hydrocarbons and the need for rules which provide an acceptable level of regulation to ensure the protection of human health and the environment. These two bases are discussed below.

A. Need for Consistency with Federal Regulations

In 1976, Congress adopted the Resource Conservation and Recovery Act (hereinafter "RCRA") to regulate the management of hazardous waste. 42 U.S.C.

§§ 6901 et seq. In adopting RCRA, Congress provided for eventual state control of the hazardous waste program and set up the mechanism for the United States Environmental Protection Agency (hereinafter "EPA") to grant authority to states to operate the program. In states that receive authorization, the state program operates in lieu of the federal program. To receive and maintain authorization, the state must have a program which is "equivalent" to the federal program and consistent with federal or state programs applicable in other states. EPA has defined "equivalent" to mean that the state requirements are at least as stringent as federal requirements. In terms of consistency, EPA's goal is to achieve an integrated national program which requires that final state programs do not conflict with each other or with the federal program.

Minnesota received final authorization for its hazardous waste program from EPA effective February 11, 1985. See 50 Fed. Reg. 3756 (January 28, 1985). A state with final authorization administers its hazardous waste program entirely in lieu of the EPA. When new, more stringent federal requirements are promulgated by EPA under RCRA, the state is required, within specified time frames, to enact equivalent requirements. However, until they are adopted as state requirements, the federal requirements do not take effect in an authorized state.

The EPA may also promulgate regulations according to the 1984 Hazardous and Solid Waste Amendments (HSWA) (Pub. L. 98-616, November 8, 1984). In enacting HSWA, Congress directed EPA to provide for the immediate implementation of certain regulations. When more stringent federal requirements are promulgated by EPA under HSWA, the federal requirements go into effect in all states on the

date specified, regardless of the authorization status of the state. States must amend their rules to be equivalent to the HSWA regulations, but until these amendments become effective the federal program is in effect in the state.

On February 10, 1984, the EPA adopted amendments to its regulations which add a category of chlorinated aliphatic hydrocarbons to the lists of hazardous wastes. 49 Fed. Reg. 5308 (Exhibit 2). These amendments were promulgated under RCRA. Minnesota, as an authorized state must amend the State rules to incorporate these amendments. However, until the State amendments become effective, the federal amendments will not go into effect in Minnesota.

On January 14, 1985, EPA adopted amendments to its regulations regarding the listing and management of dioxin and dibenzofuran containing wastes. These amendments were promulgated under HSWA. 50 Fed. Reg. 1978 (Exhibit 1). The effective date of these regulations is July 15, 1985. These requirements will go into effect in all states at this time. Until Minnesota's more stringent requirements become effective, the federal requirements will be the basis for regulation of these wastes.

The amendments to the federal hazardous waste regulations under HSWA add seven categories of wastes containing dioxins and dibenzofurans to the lists of hazardous wastes from specific sources. 50 Fed. Reg. 1978 (January 14, 1985). The amendments adopted under RCRA also added an additional category of wastes containing chlorinated aliphatic hydrocarbons to these lists. 49 Fed. Reg. 5308 (February 10, 1984). The need for these amendments is discussed in Exhibits 1 and 2, and those discussions are hereby incorporated by reference into this document. These federal amendments make EPA's rules more stringent than the

current State rules so that regardless of the status of the State rules, these wastes must be managed as a hazardous waste under the federal program. The proposed amendments are needed in order to promote consistency between federal regulations and Agency rules regarding the wastes which are listed as hazardous wastes. Also, to maintain equivalency with the federal program, the state program needs to be amended to address these more stringent federal requirements.

B. Need to Ensure an Adequate Level of Protection

The EPA amendments also provide standards for the management of wastes containing dioxins or dibenzofurans at treatment, storage and disposal facilities. 50 Fed. Reg. 1978 (January 14, 1985). The Agency does not believe that the federal provisions are sufficient to ensure the protection of the public health and the environment as they relate to the regulation of facilities managing dioxin and dibenzofuran containing wastes. Therefore, the Agency has based the amendments addressing the regulation of these facilities on the federal regulations but has modified them to be more restrictive than the federal regulations. These more stringent requirements are needed because the wastes being regulated in the proposed amendments are very persistent, acutely hazardous wastes and present a serious threat to public health and safety and to the environment when disposed of in land disposal facilities. By limiting land disposal to only treatment residues and contaminated soil, the Agency is requiring that dioxin and dibenzofuran containing wastes be processed prior to land disposal. Such processing is needed to reduce the risk presented by land disposal of such wastes.

In the case of management of these wastes at interim status thermal treatment facilities, the federal provisions prohibit the treatment of such wastes unless the facility obtains a certification from EPA. EPA concluded that such a prohibition is warranted due to the very toxic nature of these wastes. The certification provision is intended to provide a means for EPA to review the capability of the facility to meet the more restrictive performance standards for thermally treating dioxin and dibenzofuran containing wastes. The Agency concurs that thermal treatment facilities should not be allowed to treat dioxin and dibenzofuran containing wastes unless compliance with the new performance standards is achieved. However, the MPCA believes it is more appropriate to require such facilities to ensure compliance through the permitting process rather than a certification process. Also, based on available information, existing thermal treatment facilities do not currently treat such wastes. Therefore, there is no need in Minnesota to develop a certification program or to allow interim status facilities to thermally treat dioxin and dibenzofuran containing wastes. Therefore, the Agency is proposing to amend the State rules to prohibit the thermal treatment of dioxin and dibenzofuran containing wastes at interim status facilities.

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

The Agency is required by Minn. Stat. ch. 14 (1984) to make an affirmative presentation of facts establishing the reasonableness of the rules or amendments proposed. Reasonableness is the opposite of arbitrariness and capriciousness. It means that there is a rational basis for the Agency's action.

The reasonableness of each of the proposed amendments is discussed below.

A. Minn. Rules Pt. 7045,0127, Subp. 2

Minn. Rules, pt. 7045.0127 relates to hazardous waste residues in empty containers and empty inner liners. Subpart 1 of the rule provides that a hazardous waste remaining in an empty container or empty inner liner is not subject to regulation under Minn. Rules, pts. 7045.0100 to 7045.1030 or a hazardous waste facility permit. The purpose of subp. 2 of Minn. Rules pt. 7045.0135 is to define "empty" containers or inner liners.

The existing subp. 2 refers to "any hazardous waste, except a waste that is a compressed gas or that is identified in part 7045.0135, subpart 4, item C,...." Minn. Rules pt. 7045.0135 is entitled "Lists of Hazardous Waste." The proposed amendments change the cross references from Minn. Rules, pt. 7045.0135, subp. 4, item C, to include any acute hazardous waste identified in Minn. Rules pt. 7045.0135, subps. 2, 3 or 4, item E.[1] These amendments correspond to EPA's amendments to 40 C.F.R. § 261.7 (b)(1) and (3). It is reasonable to change these cross-references in order to maintain consistency with the federal regulations.

B. Minn. Rules Pt. 7045.0135, Subps. 1, 2 and 4

Minn. Rules pt. 7045.0135 is entitled "Lists of Hazardous Wastes." The Agency is proposing to amend subps. 1, 2 and 4 of this rule. The proposed amendments to these three subparts are discussed below.

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[1]Although Minn. Rules pt. 7045.0135, subp. 3 does not presently list any acutely hazardous wastes, it is the Agency's understanding that EPA intends in the future to amend its regulations so that all the lists cited will include acutely hazardous wastes. It is reasonable to cross-reference subp. 3 at this time to ensure that in the future all acute hazardous wastes will be covered by the definition of Minn. Rules pt 7045.0127, subp. 2.

Subp. 1 introduces the lists of hazardous wastes, stating that a waste is a hazardous waste if it is listed under subparts 2 to 5 unless it has been excluded under Minn. Rules pt 7045.0075, subp. 2.

The amendment to subp. 1 adds a statement that six of the wastes being added to the list of hazardous waste from non-specific sources are subject to the exclusion limits for wastes generated from small quantity generators (Minn. Rules pt. 7045.0219). This is a reasonable provision because previously, none of the wastes listed in Minn. Rules pt. 7045.0135, subp. 2 (Hazardous wastes from nonspecific sources) were acutely hazardous wastes and therefore were not subject to the exclusion limits. However, with the addition of the acutely hazardous wastes to this list, it becomes appropriate to provide this cross-reference to the relevant portion of the rules.

Subp. 2 lists hazardous waste from nonspecific sources. The amendment to subp. 2 adds eight groups of hazardous wastes from non specific sources to the previously listed wastes. These groups of added wastes are taken verbatim from recent amendments to federal hazardous waste regulations. Seven of these groups are being added as a result of EPA's amendments to 40 C.F.R., Part 261.31. (See Exhibit 1 at page 2000.) They will be referred to throughout this document as dioxin and dibenzofuran containing wastes. Six of these wastes, hazardous waste numbers F020, F021, F022, F023, F026 and F027 are acutely hazardous and are wastes from the manufacturing use of tetra-, penta-, or hexachlorobenzenes under alkaline conditions; wastes from the production and manufacturing use of tri,-tetra-, and pentachlorophenols and their chlorophenoxy derivatives and discarded unused formulations containing compounds derived from these

chlorophenols. Residues resulting from the incineration of these acutely hazardous wastes have also been added to the list as hazardous waste number F028. These wastes are not classified as acutely toxic. A discussion of the reasonableness of these seven additions to the list is provided at pages 1978 to 1985 of Exhibit 1.

The eighth group of wastes is also being added to the list of hazardous wastes from nonspecific sources in response to amendments to the federal regulations. This group of wastes is taken verbatim from recent amendments to 40 C.F.R. § 261.31 (see Exhibit 2) to incorporate wastes generated during the manufacture of chlorinated aliphatic hydrocarbons. These wastes are toxic. A discussion of the reasonableness of this addition to the list is provided on pages 5308 to 5312 of Exhibit 2.

Subp. 4 lists items which are hazardous wastes when they are discarded or intended to be discarded. The amendments to subp. 4 delete several previously listed wastes from the list of discarded commercial chemical products, off-specification species, containers and spill residues. The deletion of these wastes corresponds to the deletions in the federal regulations as discussed on page 1979 of Exhibit 1. The wastes that are listed under subp. 4 are hazardous wastes when the listed compound is the sole active ingredient. By listing these dioxin and dibenzofuran containing wastes under subp. 2, hazardous wastes from nonspecific sources, the rules apply to all wastes that contain the specified toxicants, regardless of their concentration or the presence of other active ingredients. Therefore, it is reasonable to delete the wastes from the list in subp. 4 to avoid listing the same waste on two different but inconsistent lists.

An additional change has been made to subp. 4, item F to include residues contained in any container or inner liner from a container which held any of the commercial chemical products listed it item F. This amendment, which adds a reference to item C of subp. 4 will make the state rules consistent with the comparable provision in the federal regulations. 40 C.F.R. 261.33(e) cites paragraphs (a) through (d), Since these provisions correspond to items A through D of the state rules, it is reasonable to amend the state rule at this time to be consistent with federal regulations.

C. Minn. Rules Pt. 7045.0139

The amendments to Minn. Rules pt. 7045.0139 expand the list specifying the constituents which caused a waste to be listed as hazardous. It is reasonable to amend this list to address the eight wastes from non-specific sources being added by the amendments to Minn. Rules pt. 7045.0135, subp. 2. This list is necessary so that generators will know the constituent which caused their waste to be listed and will therefore be able to determine if the waste produced at their facility may qualify for an exemption pursuant to Minn. Rules pt. 7045.0075, subp. 2. These amendments are taken verbatim from the recently amended federal regulations and are discussed in Exhibits 1 and 2. It is reasonable to amend this rule in order to maintain consistency with federal regulations.

D. Minn. Rules Pt. 7045.0141

The amendments to Minn. Rules pt. 7045.0141 add additional constituents to the list of hazardous constituents in response to the wastes being listed in the amendments to Minn. Rules pt. 7045.0135, subp. 2. It is reasonable to amend

this list to include constituents not previously listed in order to provide for acceptable ground water monitoring at the facilities where these wastes are managed. This list is implemented in the development of a ground water monitoring program and must accurately reflect the constituents which may be present. It is reasonable to amend this rule in order to maintain consistency with the federal regulations.

E. Minn. Rules Pt. 7045.0219, Subp. 1

Minn. Rules pt. 7045.0219, subp. 1 establishes special requirements for small quantity generators of hazardous waste. The amendments to subp. 1 address the applicability of the small quantity generator exclusion limits. The changes correspond to the amendments to the equivalent federal provision and serve to clarify that the nature of the waste is the basis for the exclusion limits. If the waste is acutely hazardous it is subject to lower exclusion limits. With the addition of six acutely hazardous wastes to the list in Minn. Rules pt. 7045.0135, subp. 2, where no acutely hazardous wastes were previously listed, it is necessary and reasonable to add a reference to this list wherever acutely hazardous wastes are mentioned throughout the rule. As discussed in section III.A., footnote 1 of this document, subp. 3 of Minn. Rules pt. 7045.0135 is also being added to the cross-references with these amendments even though this list does not include any acutely hazardous wastes at this time.

F. Minn. Rules Pt. 7045.0526, Subp. 6

Minn. Rules pt. 7045.0526 governs the use and management of containers. The amendments to Minnesota Rules, pt. 7045.0526, subp. 6 correspond to the federal amendments discussed on page 1989 of Exhibit 1. These amendments require that

containment facilities storing any of the dioxin or dibenzofuran containing wastes which have been added in these amendments, (Hazardous Waste Numbers F020, F021, F022, F023, F026, F027, and F028) must comply with the requirements for facilities which store wastes containing free moisture. These requirements apply to containers of these wastes whether or not they contain free moisture. This is reasonable because of the additional risk inherent in the management of these wastes. The requirements for containers with free moisture are more stringent than the requirements for containers without free moisture and include provisions for an impervious, sloped base with a capacity to recover spills or leaks. A spill of hazardous wastes F020, F021, F022, F023, F026 F027, and F028 would present serious risks to human health and the environment and it is reasonable to impose more stringent conditions on the management of these wastes at container facilities.

The amendments are more stringent than the corresponding federal regulations in regard to regulation of hazardous waste F028. This waste number refers to residues resulting from the incineration or thermal treatment of soil contaminated with acutely hazardous wastes F020, F021, F022, F023, F026, and F027. (See Minn. Rules, pt. 7045.0135, subp. 2, as proposed to be amended.) Hazardous waste F028 is not listed as an acutely hazardous waste as are the other dioxin and dibenzofuran containing wastes. However, even though hazardous waste F028 does not meet the criteria as an acutely hazardous waste and is only lised as a toxic waste, it is reasonable to provide for more careful management of this waste at treatment, storage or disposal facilities because it is derived from wastes of extreme concern. No provisions are made for the determination of

the amount of acutely hazardous dioxin or dibenzofuran remaining in the residues after thermal treatment or incineration. For this reason it is reasonable to assume a worst-case situation for the management of these wastes at facilities and to require that it be stored in the same manner as acutely hazardous wastes.

G. Minn. Rules Pt. 7045.0528, Subps. 4 and 9

The amendments to Minn. Rules, pt. 7045.0528, subp. 4 require an owner or operator to include in the contingency plan required under parts 7045.0464 to 7045.0470 procedures for responding to a spill or leak from tanks holding dioxin or dibenzofuran containing wastes. These additional contingency plan requirements for dioxin and dibenzofuran containing wastes include the need to address the immediate removal of spilled or leaked waste and also the replacement or repair of a leaking tank. Additional special requirements for tanks containing dioxin and dibenzofuran containing wastes are provided in subp. 9. Minn. Rules pt. 7045.0528, subp. 2, item C currently provides that all tanks must be designed to allow for inspection to detect leakage or must provide for leakage detection through sensing devices or other methods. The amendments more specifically state the factors that must be considered for the leak detection system and containment system but do not impose significant additional requirements. It is reasonable to provide additional assurance that leaks will be detected because of the extremely hazardous nature of the waste being managed.

These requirements are the same as the equivalent federal regulations (see pages 1988-1990 of Exhibit 1) except that the amendments additionally apply to hazardous waste number F028. It is reasonable to add the federal requirements

to the rule in order to maintain consistency between the state and federal programs. However, it is reasonable to provide more stringent requirements than federal requirements for waste number F028 for the reasons discussed in paragraph III.F. above.

H. Minn. Rules Pt. 7045.0532, Subps. 1 and 10

Minn. Rules pt. 7045.0532 governs surface impoundments of hazardous waste. The Agency is proposing to amend subparts 1 and 10 of the rule. The amendment to Minn. Rules pt. 7045.0532, subp. 1 is editorial in nature, changing "the requirements of subparts 2 to 9 apply" to "this part applies." This is reasonable because, by keeping the scope general, future amendments may be incorporated without changing the reference to the subparts covered in the scope of the rule.

The amendments being added to Minn. Rules pt. 7045.0532, subp. 10 establish special requirements for hazardous wastes F020, F021, F022, F023, F026, F027, and F028. The requirements in the proposed amendments differ in several aspects from the federal regulations. Most significantly, item A of the amendments does not allow the placement of acutely hazardous wastes F020, F021, F022, F023, F026 and F027 in surface impoundments. The federal regulations allow these wastes in surface impoundments and other land disposal facilities but recognize that concerns exist regarding the feasibility of such management. On page 1988 of Exhibit 1, the EPA discusses the fact that dioxin and dibenzofuran containing wastes may be prohibited from land disposal within the next two years. The EPA has decided to allow the land disposal of these wastes pending the results of their studies on land disposal during this two year period. The Agency believes

that these wastes should not be allowed at land disposal facilities until sufficient evidence is available to ensure that they can be managed in a manner to ensure the safety of the public and the environment. At this time the Agency is not aware of any proposals to manage dioxin and dibenzofuran containing wastes at any land disposal facility in Minnesota. Therefore, a prohibition on land disposal will not affect any current waste management practices and will not be inconsistent with the expected regulation of these wastes in the future. It is reasonable to provide a cautious level of protection to human health and the environment when the consequences of allowing such wastes to be land disposed are as yet unknown.

Item B of the amendments to subp. 10 incorporates the special requirements which the federal regulations apply to the disposal of dioxin and dibenzofuran containing wastes at land disposal facilities. However, the amendments only apply these provisions to the disposal of hazardous waste F028 and to treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026 and F027 but not to the actual, untreated wastes. The proposed rule prohibits placing these wastes in a surface impoundment unless the owner or operator is in compliance with Minn. Rules pt. 7045.0532, subps. 1-9 and in compliance with a management plan approved by the Director of the Agency. The proposed rule also sets forth the factors that must be considered in the approval of a management plan for the wastes. These include consideration of the characteristics of the waste, the nature of the disposal facility and the effectiveness of additional management techniques proposed. The amendments also provide for the Director to impose additional conditions if necessary to reduce

the threat to human health and the environment. These requirements represent a reasonable level of additional regulation for the management of wastes which present a greater hazard than other types of hazardous waste due to their extreme toxicity and persistence. The reasonableness of the use of a management plan is discussed on pages 1987 and 1988 of Exhibit 1 as it applies to the federal regulations. This discussion is also valid for the amendments even though the amendments only address treatment residues and contaminated soils and not all wastes as in the federal regulations. It is reasonable to require a management plan to specifically address the management of these wastes in a special facility. The requirements for that plan must necessarily be in general terms due to the wide range of management alternatives that may be proposed.

The Agency believes that it is reasonable to provide for the management of treatment residues and soils contaminated with hazardous wastes F020, F021, F022, F023, F026, F027 and F028, even though the land disposal of these wastes in the untreated form is prohibited. Although the Agency believes that there is no valid justification for the land disposal of untreated dioxin or dibenzofuran containing wastes, it also recognizes that the Agency has a responsibility to provide for the management of these wastes when no disposal alternative exists. The Agency believes that treatment technologies may exist or be developed which will reduce the potential for harm to human health and the environment to the extent that land disposal of treatment residues from dioxin and dibenzofuran containing wastes may be acceptable. The amendments provide for this possibility by requiring that the director approve a management plan for the land disposal of all of these treatment residues and contaminated soils.

Contaminated soils are included in consideration under this provision for similar reasons. Contaminated soils represent an unusual circumstance which the Agency has a responsibility to address in the rules. It is reasonable for the amendments to provide for the possibility that under certain circumstances, subject to the director's review and approval, land disposal of contaminated soils may be a valid management option.

I. Minn. Rules Pt. 7045.0534, Subps. 1 and 10

The amendments to Minn. Rules pt. 7045.0534, subps. 1 and 10 address the management of dioxin and dibenzofuran containing wastes at waste piles. The areas where these amendments differ from the federal regulations and the Agency's justification of the reasonableness of the amendment provisions are the same as previously discussed in section III.H. of this document.

J. Minn. Rules Pt. 7045.0536, Subps. 1 and 11

The amendments to Minn. Rules pt. 7045.0536, subps. 1 and 11 address the management of dioxin and dibenzofuran containing wastes at land treatment facilities. The areas where these amendments differ from the federal regulations and the Agency's justification of the reasonableness of the amendment provisions are the same as previously discussed in section III.H. of this document.

K. Minn. Rules Pt. 7045.0538, Subps. 1 and 10

The amendments to Minn. Rules pt. 7045.0538, subps. 1 and 13 address the management of dioxin and dibenzofuran containing wastes at landfills. The areas where these amendments differ from the federal regulations and the Agency's justification of the reasonableness of the amendment provisions are the

same as previously discussed in section III.H. of this document.

L. Minn. Rules Pt. 7045.0542, Subp. 4

The amendments to Minn. Rules pt. 7045.0542, subp. 4 address the management of dioxin and dibenzofuran containing wastes at thermal treatment facilities. Item E of subp. 4 requires a more stringent destruction and removal efficiency for facilities burning dioxin and dibenzofuran containing wastes than for facilities burning other types of hazardous waste. The general standard for destruction and removal efficiency is 99.99 percent for each principal organic hazardous constituent in the waste feed. When dioxin and dibenzofuran containing wastes are burned, this destruction and removal efficiency is increased to 99.9999 percent. Additionally, the amendments require that this performance be demonstrated on constituents that are more difficult to incinerate than dioxins and dibenzofurans and that the Director must be notified of the intent to burn these wastes. These amendments are reasonable because they provide protection appropriate for the management of these wastes which present a high risk to human health and the environment. These requirements are the same as the requirements in the federal regulations for hazardous waste incinerators. See pages 1990-1992 of Exhibit 1. Minor supporting changes have also been made to the introductory paragraph and item A of subp. 4 to reflect the addition of a new item E.

M. Minn. Rules Pt. 7045.0552, Subp. 4

The amendments to Minn. Rules pt. 7045.0552, subp. 4 address the management of dioxin and dibenzofuran containing wastes at interim status facilities. The EPA discusses the reasonableness of allowing these wastes to be

managed at interim status facilities at pages 1985 to 1987 of Exhibit 1. The Agency agrees with the EPA's statement that management of these wastes at fully permitted facilities is preferable due to the extreme toxicity and persistence of these wastes. However, the EPA and the Agency recognize that a prohibition of the use of all interim status facilities for these wastes may lead to a shortage in short-term management capacity for facilities not yet permitted. Therefore, the amendments do not allow the management of these wastes at any interim status land disposal or thermal treatment facilities, with the exception of surface impoundments and waste piles under certain circumstances, but do allow management at interim status container and tank facilities. The amendments are more stringent than the federal regulations in that they do not allow the treatment of dioxin or dibenzofuran containing wastes at interim status thermal treatment facilities.

It is reasonable to provide for the management of dioxin and dibenzofuran containing wastes at interim status container and storage facilities because these facilities provide an acceptable level of control to reduce the risk to human health and the environment. Interim status tank and container facilities must meet many of the requirements for fully permitted tank and container facilities, including design, inspections, proper management and closure. Although not providing maximum protection, these requirements will ensure adequate short-term management for these wastes when fully permitted facilities are not available. The Agency agrees with the EPA in its belief that dioxin and dibenzofuran containing wastes are preferably managed at fully permitted facilities with a management plan addressing these particular wastes. However,

the Agency also believes that it is reasonable to provide for management of these wastes where other options do not exist.

The management of dioxin or dibenzofuran containing wastes at interim status surface impoundments is only allowed when these wastes are created in the impoundment as part of the plant's wastewater treatment system. Although there is currently no such known facility in Minnesota, the Agency believes that it is reasonable to provide this option in the event that such a situation is found to exist. Although the Agency would require that such a facility obtain a permit and upgrade the facility to comply with all standards, this provision would allow the facility to continue to operate during the interim. The Agency believes that this is a reasonable provision and will provide an acceptable level of protection for the short term.

Dioxin and dibenzofuran containing wastes may also be managed at interim status waste piles when these waste piles are enclosed and are managed to meet all the requirements of a fully permitted facility. Again, the Agency believes that these wastes should be treated before they are allowed at a waste pile and that it is preferable that the facility be fully permitted. Even though the Agency is not aware of any interim status waste piles managing dioxin wastes in Minnesota, the Agency recognizes that such facilities may exist and that it is reasonable to provide for their regulation until the wastes are removed or a permit is issued. The storage of these wastes in an enclosed waste pile which meets all the conditions for a permitted waste pile, even though a permit has not been granted, is a reasonable management alternative for the short term. An enclosed waste pile will guard against the exposure pathways of concern, such as

run-off, leaching and wind dispersal. Further discussion of the management of dioxin and dibenzofuran containing wastes at interim status facilities is provided at pages 1985 to 1986 of Exhibit 1.

N. Minn. Rules Pt. 7001.0560

The amendments to Minn. Rules, pt 7001.0560 address the general information requirements for the submittal of an application for a hazardous waste facility permit. Specifically this amendment provides a cross-reference to Minn. Rules pt. 7045.0528, subp. 9, the amended requirement for a contingency plan for tank facilities managing dioxin and dibenzofuran containing wastes. This is reasonable in order to notify applicants of all the areas of the rules which require that a contingency plan be submitted with the permit application.

O. Minn. Rules Pt. 7001.0580, Item B

The amendments to Minn. Rules, pt. 7001.0580, item B, require additional information to be submitted in the application for a tank permit. The need for this additional information arises due to the amendments to the facility standards for tanks. Tanks holding dioxin or dibenzofuran containing wastes are subject to special management requirements under Minn. Rules pt. 7045.0528. It is reasonable to require that the application for a permit for such facilities include the information necessary to determine if the tanks will meet the amended standards. The amendments are based on the federal requirements for permit applications for tanks handling these wastes, with the addition that they also apply to facilities containing F028 wastes.

P. Minn. Rules Pt. 7001.0590 Item K

The amendments to Minn. Rules pt. 7001.0590 item K address the additional

information required in an application for a permit to manage dioxin and dibenzofuran containing wastes at a surface impoundment.

The Agency's justification of the reasonableness of these amendments is the same as previously discussed in section III.O. of this document.

Q. Minn. Rules Pt. 7001.0600, Item L

The amendments to Minn. Rules pt. 7001.0600 item L address the additional information required in an application for a permit to manage dioxin and dibenzofuran containing wastes at a waste pile.

The Agency's justification of the reasonableness of these amendments is the same as previously discussed in section III.O. of this document.

R. Minn. Rules Pt. 7001.0610, Item I

The amendments to Minn. Rules pt. 7001.0610 item I address the additional information required in an application for a permit to manage dioxin and dibenzofuran containing wastes at a land treatment facility.

The Agency's justification of the reasonableness of these amendments is the same as previously discussed in section III.O. of this document.

S. Minn. Rules Pt. 7001.0620, Item J

The amendments to Minn. Rules pt. 7001.0620 item J address the additional information required in an application for a permit to manage dioxin and dibenzofuran containing wastes at a landfill.

The Agency's justification of the reasonableness of these amendments is the same as previously discussed in section III.O. of this document.

IV. CONSIDERATION OF SMALL BUSINESS

Minn Stat. § 14.115 (1984) requires Minnesota agencies, when proposing

amendments to existing rules which may affect small business, to consider reducing the impact of the rule on small businesses. The objective of Minn. Stat. ch. 116 is to protect the public health and welfare and the environment from the adverse effects which will result when hazardous waste is mismanaged. Considerations which would apply less stringent requirements to the hazardous waste generated by small businesses would be contrary to the Agency's mandate.

The proposed amendments will affect small businesses if they generate dioxin or dibenzofuran containing wastes or if they operate a facility managing such wastes. However, the amendments will impose the same requirements on small businesses as on large businesses. The amendments will require additional management of hazardous waste based on the increased potential for adverse effects on human health and the environment. This potential is not diminished in relation to the size of the business generating or handling the wastes. Additional expenses will be incurred as a result of the amendments due to the need to treat wastes before disposal or else transport them to a facility outside of the scope of these rules.

V. CONCLUSION

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

VI. LIST OF EXHIBITS

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

MPCA Ex. No.	Title
1	Federal Register, Volume 50, Number 9, pages 1978-2006, January 14, 1985.
2	Federal Register, Volume 49, Number 29, pages 5308-5312, February 10, 1984.

Dated: July 23, 1985

Thomas J. Kalitowski
Executive Director

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Amendment of Hazardous Waste Rules Governing the Lists of Hazardous Wastes and the Management and Permitting of Hazardous Waste Facilities, Minn. Rules Pts. 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045,0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7001.0560, 7001.0580, 7001,0590, 7001.0600, 7001.0610, and 7001.0620

AFFIDAVIT REGARDING COMMENTS RECEIVED PURSUANT TO NOTICE OF INTENT TO ADOPT RULE AMENDMENTS WITHOUT A PUBLIC HEARING

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Karen Ryss, being duly sworn on oath deposes and says:

1. That she is the person named in the Notice of Intent to Adopt Amendments to Rules Without a Public Hearing (10 S.R. 460, August 19, 1985) as the person to receive comments on the Agency's intent to amend rules concerning the above-entitled subject.

2. That the comment period set forth in the notice terminated at 4:30 p.m. on September 20, 1985.

3. That during the public comment period no comments were received by the Agency.

Karen A. Ryss

Subscribed and sworn to before me
this 11th day of October, 1985.

Mary Ann Hammer
Notary Public

MARY ANN HAMMER
NOTARY PUBLIC - MINNESOTA
RAMSEY COUNTY
My Commission Expires Dec. 11, 1985

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Amendment of Hazardous Waste Rules Governing the Lists of Hazardous Wastes and the Management and Permitting of Hazardous Waste Facilities, Minn. Rules Pts. 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045,0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7001.0560, 7001.0580, 7001,0590, 7001.0600, 7001.0610, and 7001.0620,

STATEMENT OF COMPLIANCE WITH RULEMAKING PROCEDURES

I, Special Assistant Attorney General Jocelyn F. Olson, do hereby declare that I have examined the proposed rules and all related documents and that, based on my examination and my personal familiarity with the applicable procedures, the Administrative Procedure Act and the rules of the Attorney General have been followed.

Jocelyn F. Olson

JOCELYN F. OLSON
Special Assistant
Attorney General

Dated: October 22, 1985

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Amendment of Hazardous Waste Rules Governing the Lists of Hazardous Wastes and the Management and Permitting of Hazardous Waste Facilities, Minn. Rules Pts. 7045.0127, 7045.0135, 7045.0139, 7045.0141, 7045.0219, 7045.0526, 7045.0528, 7045.0532, 7045,0534, 7045.0536, 7045.0538, 7045.0542, 7045.0552, 7001.0560, 7001.0580, 7001,0590, 7001.0600, 7001.0610, and 7001.0620

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

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Karen Ryss, being duly sworn on oath deposes and says:

1. That she is the person named in the Notice of Intent to Adopt Amendments to Rules Without a Public Hearing (10 S.R. 460, August 19, 1985) as the person to receive requests for notification of the date that the Agency submits the above-captioned rules to the Attorney General.

2. That no person has requested notification of the date on which the Agency submitted to the Attorney General.

Karen A. Ryss

Subscribed and sworn to before me this 22nd day of October, 1985.

Mary Ann Hammer
Notary Public

MARY ANN HAMMER
NOTARY PUBLIC - MINNESOTA
RAMSEY COUNTY
My Commission Expires Dec. 11, 1985