

Minnesota Attorney General: Administrative Rules Proceedings

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Version 3
August 20, 2018

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RULE REVIEW CHECKLIST

File No. 1788
DATE RECEIVED 1-22-91
REVIEW DATE 1-31-91
DUE DATE 2-5-91
(DIS)APPROVED 2-5-91
WITHDRAWN _____

Docket No. 05 0009 0697
ADOPTED W/O HEARING _____
EMERGENCY RULE _____
TO REVISOR ON ∴ 1/28/91
REVISOR (DIS)APPROVED 2/4/91
FILED W/SEC. OF STATE 2/5/91
RETURNED TO AGENCY 2/7/91

✓ Rule as adopted (4 copies)

✓ Notice to Solicit Outside Information/Opinion (if applicable)
July 23, 1990 Date published in State Register
No Comments Comments

~~Petition for Adoption of a Rule~~

✓ Board's Authorizing Resolution
September 25, 1990 Date adopted

✓ Proposed Rule
July 23, 1990 Revisor's Certificate

✓ Notice of Intent to Adopt Rule
116.07 subd 4 Statutory Authority
_____ Small Business Statement
_____ Expenditure of public money statement
10-8-90 Signature

✓ Statement of Need and Reasonableness (if applicable)
✓ Small Business Statement
NA Fees - § 16A.128

✓ Affidavit of Mailing Notice of Intent to Adopt Rule
October 16, 1990 Dated (30/25 days before adoption
_____ Notice attached indicates it is attached
_____ Copy of rule or summary attached

✓ Publication in State Register
October 22, 1990 Date (30/25 days before adoption

✓ 180-day deadline from:
✓ Effective date of law requiring rule (14.12) (both rules) amendments don't apply
✓ end of comment period (§ 14.26) (rules without hearing)
_____ effective date of statutory authority (§ 14.29) (emergency rules)

✓ Resolution Adopting
December 19, 1990 Date adopted

✓ Findings of Fact, Conclusions & Order Adopting
12-19-90 Date

✓ Written Requests, Submissions or Comments

✓ Declaration of Attorney
Alan Mitchell Name of SAAG representing agency

_____ Notice of Submission to Attorney General (if applicable)

DEPARTMENT: Office of the Attorney General **STATE OF MINNESOTA**

OFFICE MEMORANDUM

DATE: February 6, 1991

TO: GLENN SKUTA
Minnesota Pollution Control Agency

FROM: CHARLENE HATCHER
Special Assistant Attorney General
525 Park Street, Suite 500 (55103)

PHONE: 296-9422

SUBJECT: In the Matter of the Adopted Rule Relating to Toxicity Characteristics

The above-referenced rule has been approved as to its legality by the Attorney General on February 5, 1991.

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

Also enclosed are any petitions, requests, submissions or comments along with any extra copies of documents which you submitted to the Attorney General.

Your next step is to arrange for publication of the Notice of Adoption in the State Register. In a day or two, you should receive from the Revisor's Office three copies of the notice of adoption of your rule. You should submit two copies of the Notice of Adoption to the State Register for publication. A permanent rule without a hearing does not become effective until five days after a notice of adoption is published 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.

CH:sc
Enclosures
cc: Alan Mitchell
William Brown, Chief Judge
MaryAnn Hruby

Pollution Control Agency

Adopted Permanent Rules Relating to Toxicity Characteristics

Rules as Adopted

7001.0640 ADDITIONAL PART B INFORMATION REQUIREMENTS FOR SURFACE IMPOUNDMENTS, WASTE PILES, LAND TREATMENT UNITS, AND LANDFILLS.

Subpart 1. **Groundwater protection.** The additional information designated in items A to H regarding protection of groundwater is required from owners or operators of hazardous waste facilities containing surface impoundments, waste piles, land treatment units, and landfills, except as otherwise provided in part 7045.0484, subpart 1, item B, and must be submitted with Part B of the permit application. The following information is in addition to the information requirements of parts 7001.0560, 7001.0590, 7001.0600, 7001.0610, and 7001.0620:

[For text of items A to C, see M.R.]

D. A description of any plume of contamination that has entered the groundwater from a regulated unit at the time that the application is submitted that:

(1) delineates the extent of the plume on the topographic map required under part 7001.0560, item R; and

(2) identifies the concentration of each constituent listed in part 7045.0143 throughout the plume or identifies the maximum concentrations of each such constituent in the plume. The commissioner may require this information on additional constituents if waste managed at the facility has met the characteristic of lethality as defined in part 7045.0131, subpart 6.

[For text of items E to H, see M.R.]

[For text of subp 2, see M.R.]

7045.0102 MIXTURES OF WASTES.

[For text of subpart 1, see M.R.]

Subp. 2. **Mixtures of hazardous and nonhazardous wastes.**

A. A mixture is a hazardous waste if it is a mixture

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of nonhazardous waste and any waste which is hazardous solely because it exhibits the characteristic of ignitability, corrosivity, oxidativity, or reactivity as described in part 7045.0131, unless the resulting mixture no longer exhibits any of the characteristics of ignitability, corrosivity, oxidativity, or reactivity and does not exhibit characteristics of toxicity or lethality as defined in part 7045.0131.

B. A mixture is a hazardous waste if it is a mixture of nonhazardous waste and any waste listed in part 7045.0135 solely because of ignitability, corrosivity, or reactivity, unless the resulting mixture either no longer exhibits any of the characteristics of ignitability, corrosivity, and reactivity, and does not exhibit characteristics of toxicity or lethality as defined in part 7045.0131, or has been excluded from regulation pursuant to part 7045.0075, subpart 2.

C. A mixture is a hazardous waste if it is a nonsewered mixture of nonhazardous waste and any waste listed in part 7045.0135 (other than wastes listed solely because of ignitability, corrosivity, or reactivity) or any waste which is hazardous because it exhibits the characteristics of toxicity or lethality as identified in part 7045.0131 unless the resulting mixture has been excluded from regulation pursuant to part 7045.0075, subpart 2.

D. A mixture is a hazardous waste if it is a sewered mixture of nonhazardous waste and any waste which is hazardous because it exhibits the characteristics of toxicity or lethality as defined in part 7045.0131 unless before entering the sewer the resulting mixture no longer exhibits the characteristics of toxicity or lethality, and the sewering of the mixture has been approved by the agency pursuant to parts 7045.0220 to 7045.0255. This provision does not apply to those mixtures defined as nonhazardous under item F.

[For text of items E to G, see M.R.]

[For text of subp 3, see M.R.]

7045.0120 EXEMPT WASTES.

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

[For text of items A to N, see M.R.]

O. spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in part 7045.0020;

P. secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided that:

[For text of subitems (1) and (2), see M.R.]

(3) the secondary materials are never accumulated in such tanks for over 12 months without being reclaimed; and

(4) the reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal; or

Q. petroleum-contaminated media and debris that fail the test for the toxicity characteristic in part 7045.0131, subpart 7 (hazardous waste codes D018 to D043 only), and are subject to corrective action regulations under chapter 7150.

7045.0131 CHARACTERISTICS OF HAZARDOUS WASTE.

Subpart 1. **In general.** A waste which is not excluded from regulation as a hazardous waste under part 7045.0120 is a hazardous waste if it exhibits ignitability, corrosivity, reactivity, toxicity, lethality, or is an oxidizer, as described in subparts 2 to 7.

[For text of subps 2 to 5, see M.R.]

Subp. 6. **Lethality.** Lethality is determined as follows:

A. A waste exhibits the characteristic of lethality as determined in item B, if a representative sample of the waste has any one of the following properties:

[For text of subitems (1) to (4), see M.R.]

B. Lethality shall be determined by applying knowledge of materials and processes used, including reasonably

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available information on the lethality of the components of the waste. If available information and knowledge are insufficient to reasonably determine lethality, the generator must notify the commissioner. The commissioner may order additional evaluation as specified in part 7045.0217. Additional evaluation may include testing according to the specifications of item C.

C. Lethality shall be determined as described in subitems (1) to (3):

[For text of subitems (1) to (3), see M.R.]

D. A waste that exhibits the characteristics of lethality, but is not listed as a hazardous waste in part 7045.0135, has the hazardous waste number MN01.

Subp. 7. **Toxicity.** Toxicity is determined as follows:

A. A waste exhibits the characteristic of toxicity if, using the test methods described in Code of Federal Regulations, title 40, part 261, appendix II, as amended, or equivalent methods approved by the commissioner under the procedures in part 7045.0075, subpart 1, the extract from a representative sample of the waste contains any of the contaminants listed in subpart 8 at a concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering, is considered to be the extract.

B. A waste that exhibits the characteristic of toxicity, but is not listed as a hazardous waste in part 7045.0135, has the hazardous waste number specified in subpart 8 which corresponds to the toxic contaminant causing it to be hazardous.

[For text of item C, see M.R.]

Subp. 8. **Maximum concentration of contaminants for the toxicity characteristic.**

Hazardous Waste Number	Contaminant	CAS No.	Maximum Concentration (milligrams per liter)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0

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D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	*200.0
D024	m-Cresol	108-39-4	*200.0
D025	p-Cresol	106-44-5	*200.0
D026	Cresol		*200.0
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

*If o-, m-, and p-cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 milligrams per liter.

7045.0133 EXEMPTION FROM REGULATION DUE TO LETHALITY.

Subpart 1. **In general.** A specific generator's waste that meets any of the lethality characteristics as described in part 7045.0131, subpart 6, may be exempted from regulation under parts 7045.0100 to 7045.1030 if the generator can demonstrate to the satisfaction of the agency that the waste is not capable of posing a present or potential hazard to human health and the environment if the waste were to be improperly treated, transported, stored, disposed, or managed under routine waste management methods.

Subp. 2. **Factors to be considered.** In demonstrating that a waste should be exempt from regulation under parts 7045.0100 to 7045.1030, the generator must present information related to the following factors:

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A. the nature of the lethality displayed by the waste;

B. the median lethal dose or median lethal concentration of the entire waste and each of the lethal constituents within the waste;

C. the lethal constituent or constituents present in the waste and the respective concentrations;

[For text of items D and E, see M.R.]

F. based upon the improper or routine waste management methods considered in item E, the following factors:

(1) the potential of the lethal constituent or constituents or any lethal degradation product or products to migrate from the waste into the environment;

(2) the persistence of the lethal constituent or constituents or any lethal degradation product or products;

(3) the degree to which the lethal constituent or constituents or any lethal degradation product or products may bioaccumulate in the environment;

(4) the potential for the lethal constituents or constituents of any lethal degradation product or products to degrade into nonhazardous constituents and the rate of degradation; and

[For text of subitem (5), see M.R.]

[For text of item G, see M.R.]

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. toxicity characteristic waste, (E);

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E. acute hazardous waste, (H); and

F. toxic waste, (T).

The constituent which caused the agency to list the waste as a toxicity characteristic 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, 7045.1300 to 7045.1380, 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.

[For text of subps 2 to 5, see M.R.]

7045.0216 EVALUATION REPORTS TO THE COMMISSIONER.

Subpart 1. **Necessary information.** The commissioner may request at any time that a person producing a waste submit the results of the evaluation of the waste. The person must submit the following information as requested by the commissioner:

[For text of items A and B, see M.R.]

C. The concentration of each component listed in part 7045.0131, subpart 8 found in the leachate of the waste. The person evaluating the waste may submit soft data in lieu of testing the waste if the data is sufficient to demonstrate whether the waste is hazardous or nonhazardous due to the toxicity characteristic.

[For text of items D and E, see M.R.]

[For text of subp 2, see M.R.]

7045.0219 SPECIAL REQUIREMENTS FOR SMALL QUANTITY GENERATORS OF HAZARDOUS WASTE.

[For text of subps 1 to 6, see M.R.]

Subp. 7. **Testing.** When testing wastes for the toxicity

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characteristic of part 7045.0131, subpart 7, a small quantity generator must apply the extraction procedure toxicity test described in Code of Federal Regulations, title 40, part 261, appendix II (1989). Effective March 29, 1991, a small quantity generator must apply the toxicity characteristic leaching procedure of part 7045.0131, subpart 7, when testing wastes for the toxicity characteristic.

7045.0230 CONTENT OF DISCLOSURE.

Subpart 1. **Information required.** Each disclosure must include the following information:

[For text of items A to C, see M.R.]

D. the concentration of each component in part 7045.0131, subpart 8 that is known or suspected to be in the leachate of the waste following the toxicity characteristic leaching procedure. If a component listed in that exhibit is known or suspected to be in the waste, the results from the toxicity characteristic leaching procedure for that component must be included unless alternative data approved by the commissioner is submitted;

[For text of items E to I, see M.R.]

[For text of subp 3, see M.R.]

7045.0484 GROUNDWATER PROTECTION.

[For text of subps 1 to 3, see M.R.]

Subp. 4. **Hazardous constituents.** The agency shall specify in the facility permit the hazardous constituents to which the groundwater protection standard applies. Hazardous constituents are constituents identified in part 7045.0141, or constituents which are not listed in part 7045.0141, but which are contained in wastes that meet criteria established in part 7045.0131, subpart 6, for lethality and which may reasonably be expected to contribute to the lethality.

[For text of subps 5 to 14, see M.R.]

7045.0634 LAND TREATMENT.

[For text of subps 1 and 2, see M.R.]

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Subp. 3. **Waste analysis.** In addition to the waste analyses required by part 7045.0564 before placing a hazardous waste in or on a land treatment facility, the owner or operator shall:

A. determine the concentrations in the waste of any substances which equal or exceed the maximum concentrations contained in part 7045.0131, subpart 8, that cause a waste to exhibit the toxicity characteristic;

[For text of items B and C, see M.R.]

[For text of subps 4 to 8, see M.R.]

Approved
by Revisor _____

APPROVED AS TO LEGALITY

February 5, 1991

HUBERT H. HUMPHREY, III
ATTORNEY GENERAL

BY Charlene H. Hatcher
SPECIAL ASSISTANT ATTORNEY GENERAL

STATE OF MINNESOTA
DEPARTMENT OF STATE
FILED

FEB 05 1991

Joan Anderson Growe
Secretary of State

4:00 P.M.

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STATE OF MINNESOTA
MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of Proposed Amendments of the Rules Governing the Management of Hazardous Waste by use of the Toxicity Characteristic, Minn. Rules Pts. 7001.0640, 7045.0102, 7045.0120, 7045.0131, 7045.0133, 7045.0135, 7045.0216, 7045.0219, 7045.0230, 7045.0484, and 7045.0634

STATEMENT OF NEED AND REASONABLENESS

I. INTRODUCTION

The subject of this proceeding is the amendment of the rules of the Minnesota Pollution Control Agency (hereinafter "Agency") governing the management of hazardous waste by use of the Toxicity Characteristic. Specifically, the amendments the Agency is proposing pertain to the following:

A. Replacement of extraction procedure (EP) toxicity with the Toxicity Characteristic. These amendments serve to bring state rules regarding the characteristics of hazardous waste into conformity with federal regulations by replacing the characteristic of EP toxicity with the Toxicity Characteristic. The amendments accomplish this by the replacement of the extraction procedure toxicity (EP-Tox) test, currently used in the analysis of hazardous waste, with the toxicity characteristic leaching procedure (TCLP).

B. Addition of twenty-five organic chemicals to the list of contaminants for the characteristic of toxicity. The TCLP tests for twenty-five contaminants for which the EP-Tox test could not. The proposed amendments add these chemicals to the list of contaminants for the characteristic of toxicity and establish regulatory levels for these contaminants.

C. Change in the name of the characteristic of toxicity unique to Minnesota rules from "toxicity" to "lethality." This change in terminology serves to avoid potential confusion resulting from the use of the term "toxicity" for two distinct characteristics. The proposed amendments address this by the substitution of the term "lethality" for the term "toxicity" in text referring to the toxicity characteristic unique to Minnesota rules.

The bulk of these amendments are based upon federally promulgated amendments. Amendments dealing with the Toxicity Characteristic were published in the Federal Register on March 29, 1990 (see Exhibit 1). Corrections to this publication were published in the June 29, 1990 Federal Register (see Exhibit 2). EPA has promulgated these amendments under the authority of the Hazardous and Solid Waste Amendments of 1984 (HSWA). Amendments promulgated under HSWA, such as the TC rule, are immediately effective in Minnesota on the effective date of the rule. The effective date for the Toxicity Characteristic (TC) rule is September 25, 1990 for large quantity generators and March 29, 1991 for small quantity generators. The remainder of the amendments are changes in terminology regarding the state characteristic of toxicity. The Agency is changing the title of the state characteristic to avoid confusion resulting from the similar language found in both the federally promulgated Toxicity Characteristic and the state characteristic of toxicity. Authority to adopt these amendments is provided under Minn. Stat. § 116.07, subd. 4 (1988).

This Statement of Need and Reasonableness is divided into seven parts. Following this introduction, Part II contains the Agency's explanation of the need for the proposed amendments. Part III discusses the reasonableness of the proposed amendments. Part IV documents how the agency has considered the methods of reducing the impact of the proposed amendments on small businesses as

required by Minn. Stat. § 14.115 (1988). Part V documents the economic factors the Agency considered in drafting the amendments as required by Minn. Stat. § 116.07, subd. 6 (1988). Part VI sets forth the Agency's conclusion regarding the amendments. Part VII contains a list of exhibits relied on by the Agency to support the proposed amendments. The exhibits are available for review at the Agency's offices at 520 Lafayette Road North, St. Paul, Minnesota 55155.

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

Minn. Stat. ch. 14 (1988) requires an agency to make an affirmative presentation of facts establishing the need for and reasonableness of the rules or amendments proposed. In general terms, this means that an agency must set forth the reasons for its proposal, and the reasons must not be arbitrary or capricious. However, to the extent that need and reasonableness are separate, need has come to mean that a problem exists which requires administrative attention and reasonableness means that the solution proposed by an agency is appropriate. Need is a broad test which does not easily lend itself to evaluation of each proposed revision. In the case of this proceeding, the need for amendments to the Agency's rules governing the management of hazardous waste has two bases: (A) the need for consistency with federal hazardous waste regulations; and (B) the need to provide clarity in the language of the hazardous waste rules.

A. Need for Consistency with Federal Regulations.

In 1976, Congress adopted the Resource Conservation and Recovery Act, or RCRA (42 U.S.C. § 6901 et seq.), to regulate the management of hazardous waste. In adopting RCRA, Congress provided for eventual state control of the hazardous

waste program and set up the mechanism for the EPA to grant authority to states to operate the program. In states that receive authorization, the state environmental agency administers the state program in lieu of the federal program. To receive and maintain authorization, the state program must be "equivalent" to the federal program and consistent with federal or state programs applicable to 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 from EPA for its hazardous waste program pursuant to RCRA effective February 11, 1985 (see 50 FR 3756, published on January 28, 1985). A state with final authorization administers its hazardous waste program in lieu of the EPA program for those regulations which were promulgated pursuant to RCRA. In order to maintain authorization, the state must enact equivalent requirements within specific time frames when new, more stringent federal requirements are promulgated by EPA. Federal regulations promulgated under RCRA are not in effect in Minnesota until the state rules are amended to incorporate the federal changes. However, federal regulations promulgated under HSWA, such as the TC rule, become effective nationally regardless of state authorization and subsequently are enforced by EPA until the states modify their programs to adopt HSWA amendments. Thus, Minnesota must modify its hazardous waste program by adopting HSWA amendments and apply for and receive authorization under HSWA in order to enforce HSWA provisions in lieu of

EPA as part of its authorized state program. Since the TC rule is promulgated under HSWA, the Agency proposes adopting these amendments in order to be consistent with federal regulations and to remain authorized by the EPA to administer its hazardous waste program.

B. Need to Provide Clarity in the Language of the State Hazardous Waste Rules.

New rules and amendments must never conflict with existing rules in either content or form. Although the adoption of the TC rule does not conflict with existing rules in content, there is a strong possibility of confusion resulting from similarity in linguistic form between the TC rule and the existing rules regarding the state toxicity characteristic. Both rules refer to "toxicity" and "the characteristic of toxicity." In order to clarify the distinction between the two rules, the state toxicity characteristic will be known as the characteristic of "lethality" and the federally promulgated rule is to be known as the "toxicity characteristic." This is simply a change in terminology which will not affect the content of the current rule. In the interest of clarity, the Agency believes there is a need to make this change in terminology.

III. REASONABLENESS OF THE PROPOSED AMENDMENTS

The Agency is required by Minn. Stat. ch. 14 (1988) to make an affirmative presentation of facts establishing the reasonableness of the proposed rules or amendments. The Agency proposes to incorporate federal requirements promulgated by EPA. A complete discussion of the reasonableness of the federal amendments is presented in Exhibits 1 and 2 listed in Part VII of this document, which are

hereby incorporated by reference. Proposed amendments to state rules due to the federal amendments are found in Minn. Rules pts. 7045.0102, 7045.0120, 7045.0131, 7045.0135, 7045.0216, 7045.0219, 7045.0230, and 7045.0634. The Agency also proposes to amend its own rules by changing the existing language of rules regarding the state characteristic of toxicity. It is reasonable to change the existing language of the state rule to avoid potential confusion resulting from the use of the term "toxicity" in referring to two different characteristics. Proposed amendments to state rules due to changes in the existing language for the sake of clarity are found in Minn. Rules pts. 7001.0640, 7045.0102, 7045.0131, 7045.0133, and 7045.0484. The reasonableness of each proposed amendment to the state hazardous waste rules is discussed below.

A. Minn. Rules pt. 7001.0640 Additional Part B Information Requirements for Surface Impoundments, Waste Piles, Land Treatment Units, and Landfills

The existing hazardous waste rules in Minn. Rules pt. 7001.0640 give additional information requirements for surface impoundments, waste piles, land treatment units, and landfills. The Agency proposes changing the term "toxicity" to "lethality" for the reasons outlined below for changing the terminology of Minn. Rules pt. 7045.0131, subp. 6. It is reasonable to make this change in terminology for the sake of clarity of language and meaning.

B. Minn. Rules pt. 7045.0102 Mixtures of Hazardous and Nonhazardous Wastes

The existing hazardous waste rules in Minn. Rules pt. 7045.0102 regulate the mixing of hazardous and nonhazardous wastes. Items A, B, C, and D of this part make reference to the characteristics of EP toxicity and toxicity. To be consistent with federal regulations, the Agency is proposing to replace the

characteristic of EP toxicity with the Toxicity Characteristic. In order to avoid confusion resulting from similar terminology between the Toxicity Characteristic and the state characteristic of toxicity, the Agency proposes to change the name of the state toxicity characteristic from "toxicity" to "lethality". It is reasonable to make this linguistic change for the sake of clarity of language and meaning.

In subpart 2, item D of this part, the words "prior to" are to be changed to "before" upon recommendation of the Office of the Revisor of Statutes (Revisor).

C. Minn. Rules pt. 7045.0120 Exempt Wastes

The existing hazardous waste rules in Minn. Rules pt. 7045.0120 exempt specific wastes from regulation as hazardous wastes. The Agency proposes to adopt this exemption from the federal amendments for petroleum-contaminated media and debris that fail the test for the Toxicity Characteristic (waste codes D018 through D043 only) and are subject to corrective action under the hazardous waste rules for underground storage tanks (USTs). This exemption is provided for in Exhibit 1 of this document, with corrections to this amendment found in Exhibit 2 of this document. The UST rules are found in 40 CFR 280 and Minn. Rules ch. 7150. It is reasonable to exempt these wastes from regulation under the Toxicity Characteristic since these wastes are already regulated under the UST rules. Regulating these wastes under the Toxicity Characteristic would be unreasonable since current rules adequately regulate these wastes.

D. Minn. Rules pt. 7045.0131 Characteristics of Hazardous Wastes

The existing hazardous waste rules in Minn. Rules pt. 7045.0131 set forth the characteristics of hazardous wastes. The characteristic of toxicity unique

to Minnesota state rules is found in subpart 6 of this part. The Agency proposes to change the term for this characteristic from "toxicity" to "lethality" to avoid confusion with the terminology of subpart 7 for the Toxicity Characteristic. The term "lethality" is appropriate because the test used to determine the characteristic involves administration of median lethal doses and concentrations of sample wastes to laboratory animals. It is reasonable to make this change in terminology in the interest of clarity. It is reasonable to change the term used for the state characteristic rather than for the federal characteristic in order to preserve uniformity of language between state and federal rules.

Subpart 7 of Minn. Rules pt. 7045.0131 describes the characteristic of EP toxicity. The Agency proposes to adopt the federal amendments replacing the characteristic of EP toxicity with the Toxicity Characteristic. The Agency must do so in order to keep state rules in conformity with federal regulations. The main vehicle for this replacement of characteristics is the adoption of the TCLP in place of the EP-Tox test. The EPA has adopted the TCLP as the official test for the characteristic of toxicity because it is more accurate and rigorous than the EP-Tox test. The TCLP should provide greater protection for human health and the environment for these reasons. Thus, it is reasonable for the Agency to adopt the Toxicity Characteristic in order to conform to federal regulations and to provide greater protection for human health and the environment.

The reference to Code of Federal Regulations, title 40 in item A of this subpart is to be changed from a reference to the 1983 edition to a reference lacking a specific year of publication. By not specifying the year of publication, the most recent publication as amended is implied by the reference.

This change will eliminate the need to update the reference periodically. It is reasonable to change this citation to insure proper cross-referencing between the state and federal documents.

The words "set forth" are to be removed from item A of this subpart upon recommendation of the Revisor.

In Subpart 1 of Minn. Rules pt. 7045.0131 the terms "toxicity" and "extraction procedure (EP) toxicity" will be changed to "lethality" and "toxicity" respectively in light of the amendments to subparts 6 and 7 of this part as explained above.

Subpart 8 of Minn. Rules pt. 7045.0131 lists contaminants for the characteristic of toxicity. The Agency proposes adopting the federal amendments to the list of contaminants for the toxicity characteristic. This amendment will add twenty-five contaminants and their maximum regulatory concentration levels to the list. It is reasonable for the Agency to adopt these proposed amendments in order to remain in conformance with federal regulations and to be able to administer the TC rule properly. The expansion of the list of contaminants is an integral part of the Toxicity Characteristic rule and a direct result of adoption of the TCLP. The TCLP is able to test for these additional contaminants, so the expanded list must accompany the adoption of the TCLP.

In adopting the new list, the Agency has not included footnote 3 of the federal text (see Exhibit 1) which indicates three wastes whose quantitation limits are greater than their regulatory levels (2,4-Dinitrotoluene, Hexachlorobenzene, and Pyridine). Footnote 3 states that where a quantitation limit is greater than the calculated regulatory level, the quantitation limit

becomes the regulatory level. The Agency does not feel that it is necessary to provide this information in the list since the actual regulatory level for these chemicals is provided on the list of contaminants.

E. Minn. Rules pt. 7045.0133 Exemption From Listing Due to Toxicity

The existing hazardous waste rules in Minn. Rules pt. 7045.0133 give the requirements for exemption from regulation of wastes as hazardous due to toxicity. The Agency proposes to change the terms "toxicity" and "toxic" found throughout this part to "lethality" and "lethal" for reasons given above for changing the terminology of Minn. Rules pt. 7045.0131, subp. 6.

The Agency also proposes to re-title the part from "Exemption from Listing Due to Toxicity" to "Exemption from Regulation Due to Toxicity" since wastes are not actually listed due to this characteristic. It is reasonable to change the term from "listing" to "regulation" for the sake of clarity and accuracy.

The reference to pt. 7045.0131, subp. 6, items A and B will be made less specific by excluding items A and B from the reference. It is reasonable to broaden the reference so that all aspects of the cited rule will be reviewed and considered.

F. Minn. Rules pt. 7045.0135 Lists of Hazardous Wastes

Subp. 1 of Minn. Rules pt. 7045.0135 sets out the general basis for the listing of hazardous wastes. The Agency proposes to amend this subpart by replacing the hazard code of EP toxic waste with the designation of Toxicity Characteristic waste. The waste code abbreviation (E) used for EP toxic waste will be retained for Toxicity Characteristic waste. It is reasonable to change the designation in order to conform with the other aspects of the Toxicity Characteristic rule and to keep state rules in line with federal regulations.

G. Minn. Rules pt. 7045.0216 Evaluation Reports to the Commissioner

Subpart 1 of Minn. Rules pt. 7045.0216 details the necessary information which hazardous waste generators must supply on request of the commissioner. The Agency proposes to amend item C of this part by replacing the reference to EP toxicity with a reference to the Toxicity Characteristic. This is reasonable in light of the proposed amendments to pt. 7045.0131, subps. 7 and 8 which replace the characteristic of EP toxicity with the Toxicity Characteristic and expand the list of contaminants for the Toxicity Characteristic. Item C makes reference to EP toxicity and pt. 7045.0131, subp. 8, so it will refer to the Toxicity Characteristic and the expanded list.

H. Minn. Rules pt. 7045.0219 Special Requirements for Small Quantity Generators of Hazardous Waste.

Minn. Rules pt. 7045.0219 sets out the special requirements for generators of less than 1000 kilograms/month of hazardous waste. A new subpart is being added to this part by the proposed amendments which extends the date of compliance to the TC rule for small quantity generators until March 29, 1991. This extension is also found in the federal TC rule. It is reasonable to extend the date of compliance for small quantity generators in order to give the Agency time to educate them as to the requirements of the TC rule and RCRA. This new subpart will apply to all generators of less than 1000 kilograms/month of hazardous waste.

I. Minn. Rules pt. 7045.0230 Content of Disclosure

Subpart 1 of Minn. Rules pt. 7045.0230 sets out the required contents of disclosures. The Agency proposes to amend item D of this part by replacing the reference to the EP-Tox test with the TCLP. The Agency proposes this amendment

in order to conform to the federal amendments which replace the EP-Tox test with the TCLP. It is reasonable to make this amendment in light of the proposed amendments to pt. 7045.0131, subp. 7 which effect this replacement.

J. Minn. Rules pt. 7045.0484 Groundwater Protection

Minn. Rules pt. 7045.0484 sets out the standards for groundwater protection for facilities that treat, store, and dispose of hazardous waste. Subpart 4 of this part refers to the toxicity characteristic of pt. 7045.0131, subp. 6. In light of the proposed amendments to pt. 7045.0131, subp. 6, the Agency proposes to amend pt. 7045.0484, subp. 4 by changing the references to toxicity to references to lethality. It is reasonable to make this change in light of the other proposed amendments in this rulemaking.

K. Minn. Rules pt. 7045.0634 Waste Analysis Requirements

Subpart 3 of Minn. Rules pt. 7045.0634 contains the requirements for waste analysis for land treatment facilities. Item A of this part refers to the EP toxicity characteristic. The Agency proposes to amend this item by changing the reference to the EP toxicity characteristic to a reference to the Toxicity Characteristic. This is reasonable in light of the proposed amendments to pt. 7045.0131, subp. 7 of this rulemaking which effect the replacement of the characteristic of EP Toxicity with the Toxicity Characteristic.

IV. SMALL BUSINESS CONSIDERATIONS IN RULEMAKING

To comply with Minn. Stat. § 14.115 (1988), the Agency has considered the statutory methods for reducing the impact of the proposed rules on small business. The statute requires that each of the following methods be considered:

1. The establishment of less stringent compliance or reporting requirements;
2. The establishment of less stringent schedules or deadlines for compliance or reporting requirements;
3. The consolidation or simplification of compliance or reporting requirements;
4. The establishment of performance standards for small businesses to replace design or operational standards in the rule; and,
5. The exemption of small businesses from any or all requirements of the rule.

It should be noted that the volume of hazardous waste generated by a business is not directly proportional to its size. Many small businesses generate large quantities of hazardous waste. Therefore, generators are classified by volume of generation rather than by size of business. Regulation by volume of waste generated rather than by business size thus insures better protection for human health and the environment. For these reasons, in attempting to establish less stringent requirements for small businesses within its rules, the Agency cannot consider only the size of a business. Instead, the Agency must consider the amount of hazardous waste which a business generates.

In order to remain authorized by EPA to administer its hazardous waste program under RCRA, the Agency must adopt all federally mandated amendments and rules which are more stringent than existing state rules. The TC rule is a more

stringent rule and thus the Agency must adopt it. Because the Agency must adopt the TC rule, methods 1, 4, and 5 cannot be allowed for small businesses which generate significant quantities of hazardous waste. However, there are some aspects of methods 2 and 3 included in the TC rule that should favorably affect small businesses that generate hazardous waste in small quantities.

The TC rule establishes a less stringent schedule for compliance for small quantity generators (SQGs), which are generators of greater than 100 and less than 1,000 kilogram/month of hazardous waste. Under the new rule, SQGs are given until March 29, 1991 to comply with the TC rule, while large quantity generators (LQGs), which are generators of 1,000 kilogram/month or more of hazardous waste, must comply by September 29, 1990. EPA believes that these additional six months will both provide necessary time for SQGs to comply with the TC rule and allow EPA time to educate SQGs on RCRA rules. This aspect of the rule will apply to SQGs in Minnesota. In addition, Minnesota hazardous waste rules recognize an additional category of generators known as very small quantity generators (VSQGs) which are generators of less than 100 kilograms/month of hazardous waste. This less stringent schedule of compliance will also apply to VSQGs. Any small businesses which are also SQGs or VSQGs will benefit from this less stringent schedule of compliance.

The TC rule provides for simplification of reporting requirements for all generators. Generators with an EPA identification number who have already notified EPA that they generate hazardous wastes other than those resulting from the proposed rule are not required to notify EPA that they generate a "new" toxic waste based on the TCLP. This will aid in the consolidation of reporting

requirements for small businesses that generate hazardous waste. Generators must file an amended disclosure form with the Agency, however, if they generate a waste found to be toxic by TCLP which was not found to be toxic by the EP-Tox test.

The proposed amendments dealing with the change in terminology for the state toxicity characteristic do not change the content of the rule, so they will have no effect on small businesses.

V. CONSIDERATION OF ECONOMIC FACTORS

In exercising its powers, the Agency is required by Minn. Stat. § 116.07, subd. 6 (1988) to give due consideration to economic factors. The statute provides:

> In exercising all its powers, the Pollution Control Agency shall give due consideration to the establishment, maintenance, operation, and expansion of business, commerce, trade, industry, traffic, and other economic factors and other material matters affecting the feasibility and practicability of any proposed action, including, but not limited to, the burden on a municipality of any tax that may result therefrom, and shall take or provide for such action as may be reasonable feasible, and practical under the circumstances.

The TC rule will incur great economic costs. EPA estimates that national social costs due to the TC rule will range from $1.3 billion to $5.7 billion per year. Between 15,000 and 17,000 generators will be affected nationwide. Although these costs are substantial, they are short term costs which are far outweighed by the long-term benefits of the rule. The TC rule is expected to nationally save $3.8 billion per year due to reduction in resource damage and

help avoid loss of $15 billion per year due to cleanup costs. In the long run, the TC rule will provide economic savings and added protection to human health and the environment.

The TC rule will increase laboratory testing costs in many cases as well. The EP-Tox test, which the TCLP is replacing, was a less expensive test to perform. The EP-Tox test cost between $250 and $400 per sample whereas the TCLP costs about $1,000 per sample to perform. However, the TC rule explicitly states that generators may apply knowledge of their wastes in determining whether or not the wastes are hazardous. This means that testing is not mandatory and testing costs can be avoided through generator certification. Also, the TCLP can be broken down into four separate tests (tests for metals, pesticides, semi-volatile constituents, and volatile constituents). Generators may apply knowledge of their waste and only conduct the specific parts necessary to evaluate their particular wastes, rather than running the full range of tests. This is another way in which laboratory testing costs can be reduced.

The Agency believes that increased costs for treatment, storage, disposal, and testing resulting from the TC rule will be mitigated in the future by the prevention of resource loss, the avoidance of cleanup costs, and the further protection of human health and the environment.

VI. 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.

VII. LIST OF EXHIBITS

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

Agency Ex. No.	Title
1	Federal Register, Vol. 55, No. 61, pages 11799-11877, March 29, 1990.
2	Federal Register, Vol. 55, No. 126, pages 26985-26998, June 29, 1990.

September 14, 1990
Date

for Gerald L. Willet

Stat Authority 116.07 subd 4

... the pollution control agency may adopt, amend and rescind rules and standards having the force of law

end of comment period Nov 26, 1990

call about SOLAR

1-22-91

STATE OF MINNESOTA

OFFICE OF THE ATTORNEY GENERAL

PUBLIC RESOURCES SECTION
SUITE 200
520 LAFAYETTE ROAD
ST. PAUL, MN 55155
TELEPHONE: (612) 297-1075
FACSIMILE: (612) 297-4139

HUBERT H. HUMPHREY, III
ATTORNEY GENERAL

January 18, 1991

Ms. Patty Nolte
Legal Assistant
Office of the Attorney General
525 Park Street, Suite 500
St. Paul, Minnesota 55155

Re: In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste By the Toxicity Characteristic, Minn. Rules Pts. 7001.0640, 7045.0102, 7045.0120, 7045.0131, 7045.0133, 7045.0135, 7045.0216, 7045.0219, 7045.0230, 7045.0484, and 7045.0634.

Dear Ms. Nolte:

On December 18, 1990, the Minnesota Pollution Control Agency adopted the above-captioned rule amendments governing the management and operation of household hazardous waste collection programs. Enclosed for your review are the following:

1. Notice of Intent to Solicit Outside Opinion (15 S.R. 228, June 23, 1990).

2. Affidavit of no written comments received pursuant to Notice of Intent to Solicit Outside Opinion (August 27, 1990).

3. Certificate of Agency's Authorizing Resolution (September 25, 1990).

4. Rules as proposed with Revisor's certificate.

5. Notice of Intent to Adopt Rule Amendments Without a Public Hearing, as mailed (October 8, 1990).

6. Affidavit of Mailing the Notice of Intent to Adopt Rules Without a Public Hearing and Certificate of Mailing List (October 24, 1990).

7. Statement of Need and Reasonableness.

8. Notice of Intent to Adopt Rule Amendments Without a Public Hearing and rule amendments as proposed (15 S.R. 957-963, October 22, 1990).

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9. Comments received during the comment period (One comment letter from U.S. Environmental Protection Agency dated November 20, 1990).

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

11. Certificate of Resolution Adopting Rules (December 19, 1990).

12. Findings of Fact, Conclusions, and Order Adopting Rules (December 19, 1990) (two copies).

13. Affidavit of Receiving No Requests for Notice of Submission of Rule Amendments Adopted Without a Public Hearing to the Attorney General (December 18, 1990).

14. Declaration of Counsel.

For your information, the four digit client code is 0697.

Very truly yours,

Alan Mitchell

ALAN R. MITCHELL
Special Assistant
Attorney General

Environmental Protection
Division

ARM:jlm:AP0
Enclosures
cc: Jeanne Eggleston, MPCA

Pollution Control Agency

Division of Hazardous Waste

Notice of Intent to Solicit Outside Opinion Regarding Proposed Amendments to Hazardous Waste Identification Regulations by the Implementation of the Toxicity Characteristic Leaching Procedure (TCLP), *Minnesota Rules* Chapter 7045

NOTICE IS HEREBY GIVEN that the Minnesota Pollution Control Agency (Agency) is seeking opinions from outside sources regarding the amendment of rules governing the identification of hazardous waste by the implementation of the Toxicity Characteristic Leaching Procedure.

The existing rules under consideration for amendment are found at *Minnesota Rules* pts. 7045.0102 (Mixtures of Hazardous and Nonhazardous Wastes), 7045.0131 (Characteristics of Hazardous Wastes), 7045.0135 (Lists of Hazardous Wastes), 7045.0216 (Evaluation Reports to the Commissioner), 7045.0230 (Content of Disclosure), and 7045.0634 (Land Treatment). These rules were adopted pursuant to *Minnesota Statutes* sec. 116.07, Subd. 4 (1988) which allows the Agency to adopt rules relating to the regulation of hazardous waste.

The purpose of this rulemaking is to bring state rules into conformance with existing federal regulations found in Title 40, *Code of Federal Regulations* parts 261.8, 261.24, 261.30, and 265.273. The federal regulations replace the Extraction Procedure (EP) leach test with the Toxicity Characteristic Leaching Procedure (TCLP) for the identification of hazardous waste. The promulgation of the TCLP rule will add twenty-five organic chemicals to the list of contaminants regulated as characteristic hazardous wastes in Minnesota.

The Agency requests information and opinions concerning the subject matter of the proposed amendments. Interested persons or groups may submit data or views orally or in writing. Oral or written statements or comments should be directed to:

Glenn Skuta
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155
Telephone: (612) 643-3478

Oral statements will be received during regular business hours, 8:00 a.m. to 4:00 p.m., Monday through Friday.

Statements and comments will be accepted until August 23, 1990. Any written materials received by the Agency shall become part of the rulemaking record in the event that the rule is amended.

Gerald L. Willet
Commissioner

Minnesota Pollution Control Agency

Water Quality Division

Notice of Intent to Issue a General State Disposal System Permit for Facilities Located in the State of Minnesota that Produce Paving Asphalt Concrete and Operate a Wet Scrubber

Under the General Permit Program, a single general permit may be issued to a category of permittees whose operations, emissions, activities, discharges or facilities are the same or substantially similar. This program applies to categories of facilities that meet the following conditions:

A. There are several permit applicants or potential permit applicants who have the same or substantially similar operations, emissions, activities, discharges or facilities;

B. The permit applicants or potential permit applicants discharge, emit, process, handle, or dispose of the same types of waste;

C. The operations, emissions, activities, discharges, or facilities are subject to the same or substantially similar standards, limitations, and operating requirements;

D. The operations, emissions, activities, discharges, or facilities are subject to the same or similar monitoring requirements; and

E. In the opinion of the Commissioner, the facilities would be more appropriately controlled under a general permit than under individual permits.

Minnesota Pollution Control Agency
520 Lafayette Road, Saint Paul, Minnesota 55155-3898
Telephone (612) 296-6300

Celebrate MINNESOTA 1990

October 11, 1990

Ms. Maryann Hruby, Director
Legislative Commission to Review
Administrative Rules
55 State Office Building
St. Paul, Minnesota 55155

Dear Ms. Hruby:

As required by 1990 amendments to the Administrative Procedures Act, we are forwarding copies of our Statement of Need and Reasonableness (SONAR) for five separate proposed rule and rule amendment packages. These SONARs support rulemakings which govern the following:

- Toxicity Characteristics Testing Procedures
- Household Hazardous Waste Management Plans
- Lead Abatement in Soils
- Minimum Technology (Double Liners) for Hazardous Waste Facilities
- Management of Household Batteries

If you have any questions please contact me at 612/643-3498.

Sincerely,

Randall G. Hukriede
for
Carol Nankivel, Supervisor
Rules Unit
Program Development Section
Hazardous Waste Division

CN/JAE:jao

Enclosures

RECEIVED
JAN 2 ? 1991
ATTORNEY GENERAL'S OFFICE
SUITE 200
520 LAFAYETTE ROAD
ST. PAUL, MN 55155

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of Proposed Amendments of the Rules Governing the Management of Hazardous Waste By Use of the Toxicity Characteristic, Minn. Rules Pts. 7045.0102, 7045.0120, 7045.0131, 7045.0133, 7045.0135, 7045.0216, 7045.0230, 7045.0484, and 7045.0634

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

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Glenn Skuta, being duly sworn on oath deposes and says:

1. That he is the person named in the Notice of Intent to Solicit Outside Opinion (15 SR 228, July 23, 1990) as the person to receive comments on the Minnesota Pollution Control Agency's intent to adopt rule amendments concerning the above-entitled matter.

2. That the comment period set forth in the notice terminated at 4:00 p.m. on August 23, 1990.

3. That during the public comment period, there were no comments received by the the Minnesota Pollution Control Agency regarding the above-entitled matter.

Glenn Skuta

Subscribed and sworn to before me
this 27 day of August, 1990.

Ardith M. Vos
Notary Public

ARDITH M. VOS
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 1-12-94

CERTIFICATE OF AGENCY'S AUTHORIZING RESOLUTION

I, Gerald Willet, do hereby certify that I am the Commissioner 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 25th day of September, 1990, 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 Commissioner of the Minnesota Pollution Control Agency is hereby granted the authority to sign and to give notice of the Minnesota Pollution Control Agency's intent to adopt, without a public hearing, the attached amendments to the Minnesota Pollution Control Agency's hazardous waste rules governing the management, storage, treatment, and disposal of hazardous waste, Minn. Rules pts. 7001.0640, 7045.0102, 7045.0120, 7045.0131, 7045.0133, 7045,0135, 7045.0216, 7045.0219, 7045.0230, 7045.0484, and 7045.0634, to all persons who have registered their names with the Minnesota Pollution Control Agency for that purpose and publish the notice and the rule amendments in the State Register, and to perform any acts incidental thereto, including making any form changes in the rule amendments that the Revisor of Statutes requires the Minnesota Pollution Control Agency to make in order to obtain the Revisor's certification as required by Minn. Stat. § 14.07, subd. 2 (1988).

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

IN WITNESS WHEREOF, I have hereunto subscribed my name this 25 day of September, 1990.

Gerald L. Willet

Gerald L. Willet
Commissioner

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste By the Toxicity Characteristic, Minn. Rules Chs. 7001 and 7045

NOTICE OF INTENT TO ADOPT RULES WITHOUT A PUBLIC HEARING

(1) Notice is hereby given that the Minnesota Pollution Control Agency (MPCA) intends to adopt the above-entitled rule amendments without a public hearing following the procedures set forth in the Administrative Procedure Act for adopting rule amendments without a public hearing in Minn. Stat. §§ 14.22 to 14.28 (1988). The MPCA's authority to adopt the rule amendments is set forth in Minn. Stat. § 116.07, subd. 4 (1988).

(2) All persons have until 4:30 p.m. on November 26, 1990, to submit comments in support of or in opposition to the proposed rule amendments or any part or subpart of the rules. Comment is encouraged. (3) Each comment should identify the portion of the proposed rule amendments addressed, the reason for the comment, and any change proposed.

Any person may make a written request for a public hearing on the proposed rule amendments within the comment period. (4) If 25 or more persons submit a written request for a public hearing within the comment period, a public hearing will be held unless a sufficient number withdraw their requests in writing. (6) 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 amendments addressed, the reason for the request, and any change proposed. (7) If a public hearing is required, the MPCA will proceed pursuant to Minn. Stat. §§ 14.131 to 14.20 (1988).

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

(5)
Glenn Skuta
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155
612/643-3478

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

(11) The proposed rule amendments pertaining to the management of hazardous waste, if adopted, incorporate the federally mandated toxicity characteristic (TC) rule into state rules and change the title of the state characteristic of toxicity found in Minn. Rules pt. 7045.0131, subp. 6 from "toxicity" to "lethality". One free copy of the rules is available upon request from Glenn Skuta at the address and telephone number given above.

(12) A Statement of Need and Reasonableness that describes the need for and reasonableness of each provision of the proposed rule amendments has been prepared and is available from Glenn Skuta upon request.

(14) You are hereby advised, pursuant to Minn. Stat. § 14.115 (1988), "Small business considerations in rulemaking," that the proposed rule amendments will affect small businesses that generate hazardous waste. All businesses, including small businesses, are required by the proposed amendments to use the toxicity characteristic leaching procedure (TCLP) in place of the extraction procedure toxicity (EP-Tox) test when analyzing their waste for toxicity. Also, the TCLP analyzes wastes for 25 more contaminants than the EP-Tox test. Due to this addition of contaminants, some small businesses which were not classified as hazardous waste generators before the advent of the TC rule may now be classified as such.

(9) If no hearing is required, upon adoption of the rule amendments, the rule amendments and required supporting documents will be submitted to the Attorney General for review as to legality and form to the extent form relates to legality. Any person may request notification of the date of submission to the Attorney General. Persons who wish to be advised of the submission of this material to the Attorney General, or who wish to receive a copy of the rules, must submit the written request to Glenn Skuta.

Dated: 10-8-90

for Barbara Lindsey Sims
Gerald L. Willet
Commissioner

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Amendments of Rules Governing the Management of Hazardous Waste By the Toxicity Characteristic, Minn. Rules Pts. 7001 and 7045

AFFADAVIT OF MAILING THE NOTICE OF INTENT TO ADOPT RULES WITHOUT A PUBLIC HEARING AND CERTIFICATE OF MAILING LIST

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Glenn Skuta, being duly sworn says:

I hereby certify that the list of persons and associations who have requested, pursuant to Minn. Stat. §§ 14.14, subd. 1a and 14.22 (1988) that their names be placed on the Minnesota Pollution Control Agency's rulemaking mailing list is accurate, complete, and current as of the 16th day of October, 1990.

That on the 16th day of October, 1989, at the City of St. Paul, County of Ramsey, State of Minnesota, I mailed the attached Notice of Intent to Adopt Rules Without a Public Hearing by depositing in the State of Minnesota Central Mail System or in the United States mail for first class mailing a copy thereof, with postage prepaid, to all persons and associations on the aforementioned mailing list.

Glenn Skuta

Subscribed and sworn to before me

this 24 day of October, 1990.

Ardith M. Vos
Notary Public

ARDITH M. VOS
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 1-12-94

existing unit that is within the area identified in the Part A permit application, and with respect to waste received beginning May 8, 1985.

B. The owner or operator of each unit referred to in item A must notify the commissioner at least 60 days before receiving waste. The owner or operator of each facility submitting notice must file a Part B application within six months of the commissioner's receipt of the notice.

[For text of subps 2 to 8, see M.R.]

7045.0632 WASTE PILES.

[For text of subps 1 to 4, see M.R.]

Subp. 4a. **Design requirements.** The owner or operator of a waste pile is subject to the requirements for liners and leachate collection and removal systems provided in part 7045.0534, subpart 3, with respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the area identified in Part A permit application, and with respect to waste received beginning May 8, 1985.

[For text of subps 5 to 7, see M.R.]

7045.0638 LANDFILLS.

[For text of subpart 1, see M.R.]

Subp. 1a. **Design requirements.** Design requirements are as follows:

A. The owner or operator of a landfill must install two or more lines and leachate collection systems according to part 7045.0538, subpart 3, items A to K, with respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the area identified in the part A permit application, with respect to waste received beginning May 8, 1985.

B. The owner or operator of each unit referred to in item A must notify the commissioner at least 60 days before receiving waste. The owner or operator of each facility submitting notice must file a part B application within six months of the commissioner's receipt of the notice.

[For text of subps 2 to 9, see M.R.]

Pollution Control Agency

Proposed Permanent Rules Relating to Toxicity Characteristics

Notice of Intent to Adopt Rules Without a Public Hearing

NOTICE IS HEREBY GIVEN that the Minnesota Pollution Control Agency (MPCA) intends to adopt the above-entitled rule amendments without a public hearing following the procedures set forth in the Administrative Procedure Act for adopting rule amendments without a public hearing in *Minnesota Statutes* §§ 14.22 to 14.28 (1988). The MPCA's authority to adopt the rule amendments is set forth in *Minnesota Statutes* § 116.07, subd. 4 (1988).

All persons have until 4:30 p.m. on November 26, 1990, to submit comments in support of or in opposition to the proposed rule amendments or any part or subpart of the rules. Comment is encouraged. Each comment should identify the portion of the proposed rule amendments addressed, the reason for the comment, and any change proposed.

Any person may make a written request for a public hearing on the proposed rule amendments within the comment period. If 25 or more persons submit a written request for a public hearing within the comment period, a public hearing will be held unless a sufficient number withdraw their requests in writing. Any person requesting a public hearing must state his or her name and address, and is encouraged to identify the portion of the proposed rule amendments addressed, the reason for the request, and any change proposed. If a public hearing is required, the MPCA will proceed pursuant to *Minnesota Statutes* §§ 14.131 to 14.20 (1988).

Comments or written requests for a public hearing must be submitted to Glenn Skuta, Minnesota Pollution Control Agency, 520 Lafayette Road, St. Paul, Minnesota 55155, (612/643-3478).

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

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 proposed rule amendments pertaining to the management of hazardous waste, if adopted, incorporate the federally mandated toxicity characteristic (TC) rule into state rules and change the title of the characteristic of toxicity found in *Minnesota Rules* pt. 7045.0131, subp. 6 from "toxicity" to "lethality". The proposed rule amendments are published below. One free copy of the rules is available upon request from Glenn Skuta at the address and telephone number stated above.

A STATEMENT OF NEED AND REASONABLENESS that describes the need for and reasonableness of each provision of the proposed rule amendments has been prepared and is available from Glenn Skuta upon request.

YOU ARE HEREBY ADVISED, pursuant to *Minnesota Statutes* § 14.115 (1988), "Small business considerations in rulemaking," that the proposed rule amendments will affect small businesses that generate hazardous waste. All businesses, including small businesses, are required by the proposed amendments to use the toxicity characteristic leaching procedure (TCLP) in place of the extraction procedure toxicity (EP-Tox) test when analyzing their wastes for toxicity. Also, the TCLP analyzes wastes for twenty-five more contaminants than the EP-Tox test. Due to this addition of contaminants, some small businesses which were not classified as hazardous waste generators before the advent of the TC rule may now be classified as such.

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

Gerald L. Willet
Commissioner

Rules as Proposed

7001.0640 ADDITIONAL PART B INFORMATION REQUIREMENTS FOR SURFACE IMPOUNDMENTS, WASTE PILES, LAND TREATMENT UNITS, AND LANDFILLS.

Subpart 1. **Groundwater protection.** The additional information designated in items A to H regarding protection of groundwater is required from owners or operators of hazardous waste facilities containing surface impoundments, waste piles, land treatment units, and landfills, except as otherwise provided in part 7045.0484, subpart 1, item B, and must be submitted with Part B of the permit application. The following information is in addition to the information requirements of parts 7001.0560, 7001.0590, 7001.0600, 7001.0610, and 7001.0620:

[For text of items A to C, see M.R.]

D. A description of any plume of contamination that has entered the groundwater from a regulated unit at the time that the application is submitted that:

(1) delineates the extent of the plume on the topographic map required under part 7001.0560, item R; and

(2) identifies the concentration of each constituent listed in part 7045.0143 throughout the plume or identifies the maximum concentrations of each such constituent in the plume. The commissioner may require this information on additional constituents if waste managed at the facility has met the characteristic of ~~toxicity~~ lethality as defined in part 7045.0131, subpart 6.

[For text of items E to H, see M.R.]

[For text of subp 2, see M.R.]

7045.0102 MIXTURES OF WASTES.

[For text of subpart 1, see M.R.]

Subp. 2. **Mixtures of hazardous and nonhazardous wastes.**

A. A mixture is a hazardous waste if it is a mixture of nonhazardous waste and any waste which is hazardous solely because it exhibits the characteristic of ignitability, corrosivity, oxidativity, or reactivity as described in part 7045.0131, unless the resulting mixture no longer exhibits any of the characteristics of ignitability, corrosivity, oxidativity, or reactivity and does not exhibit characteristics of ~~extraction procedure (EP)~~ toxicity or ~~toxicity~~ lethality as defined in part 7045.0131.

B. A mixture is a hazardous waste if it is a mixture of nonhazardous waste and any waste listed in part 7045.0135 solely because of ignitability, corrosivity, or reactivity, unless the resulting mixture either no longer exhibits any of the characteristics of ignitability, corrosivity, and reactivity, and does not exhibit characteristics of ~~extraction procedure (EP)~~ toxicity or ~~toxicity~~ lethality as defined in part 7045.0131, or has been excluded from regulation pursuant to part 7045.0075, subpart 2.

C. A mixture is a hazardous waste if it is a nonsewered mixture of nonhazardous waste and any waste listed in part 7045.0135 (other than wastes listed solely because of ignitability, corrosivity, or reactivity) or any waste which is hazardous because it exhibits the characteristics of ~~extraction procedure (EP)~~ toxicity or ~~toxicity~~ lethality as identified in part 7045.0131 unless the resulting mixture has been excluded from regulation pursuant to part 7045.0075, subpart 2.

D. A mixture is a hazardous waste if it is a sewered mixture of nonhazardous waste and any waste which is hazardous because it exhibits the characteristics of ~~extraction procedure (EP)~~ toxicity or ~~toxicity~~ lethality as defined in part 7045.0131 unless ~~prior to~~ before entering the sewer the resulting mixture no longer exhibits the characteristics of ~~extraction procedure (EP)~~ toxicity or ~~toxicity~~ lethality, and the sewering of the mixture has been approved by the agency pursuant to parts 7045.0220 to 7045.0255. This provision does not apply to those mixtures defined as nonhazardous under item F.

[For text of items E to G, see M.R.]

[For text of subp 3, see M.R.]

7045.0120 EXEMPT WASTES.

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

[For text of items A to N, see M.R.]

O. spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in part 7045.0020; ~~or~~

P. secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided that:

[For text of subitems (1) and (2), see M.R.]

(3) the secondary materials are never accumulated in such tanks for over 12 months without being reclaimed; and

(4) the reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal~~.~~; or

Q. petroleum-contaminated media and debris that fail the test for the toxicity characteristic in part 7045.0131, subpart 7 (hazardous waste codes D018 to D043 only), and are subject to corrective action regulations under chapter 7150.

7045.0131 CHARACTERISTICS OF HAZARDOUS WASTE.

Subpart 1. **In general.** A waste which is not excluded from regulation as a hazardous ~~waste~~ under part 7045.0120 is a hazardous waste if it exhibits ignitability, corrosivity, reactivity, toxicity, lethality, ~~extraction procedure (EP) toxicity,~~ or is an oxidizer, as described in subparts 2 to 7.

[For text of subps 2 to 5, see M.R.]

Subp. 6. ~~**Toxicity**~~ **Lethality.** ~~Toxicity~~ Lethality is determined as follows:

A. A waste exhibits the characteristic of ~~toxicity~~ lethality as determined in item B, if a representative sample of the waste has any one of the following properties:

[For text of subitems (1) to (4), see M.R.]

B. ~~Toxicity~~ Lethality shall be determined by applying knowledge of materials and processes used, including reasonably available information on the ~~toxicity~~ lethality of the components of the waste. If available information and knowledge are insufficient to reasonably determine ~~toxicity~~ lethality, the generator must notify the commissioner. The commissioner may order additional evaluation as specified in part 7045.0217. Additional evaluation may include testing according to the specifications of item C.

C. ~~Toxicity~~ Lethality shall be determined as described in subitems (1) to (3):

[For text of subitems (1) to (3), see M.R.]

D. A waste that exhibits the characteristics of ~~toxicity~~ lethality, but is not listed as a hazardous waste in part 7045.0135, has the hazardous waste number MN01.

Subp. 7. ~~**Extraction procedure (EP)**~~ **Toxicity.** ~~Extraction procedure (EP)~~ Toxicity is determined as follows:

A. A waste exhibits the characteristic of ~~extraction procedure (EP)~~ toxicity if, using the test methods described in Code of Federal Regulations, title 40, part 261, appendix II ~~(1983)~~, as amended, or equivalent methods approved by the commissioner under the procedures ~~set forth~~ in part 7045.0075, subpart 1, the extract from a representative sample of the waste contains any of the contaminants listed in subpart 8 at a concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering, is considered to be the extract.

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B. A waste that exhibits the characteristic of ~~extraction procedure (EP)~~ toxicity, but is not listed as a hazardous waste in part 7045.0135, has the hazardous waste number specified in subpart 8 which corresponds to the toxic contaminant causing it to be hazardous.

[For text of item C, see M.R.]

Subp. 8. **Maximum concentration of contaminants for ~~Characteristic of Extraction Procedure (EP)~~** the toxicity characteristic.

~~Hazardous Waste Number~~	~~Contaminant~~	~~Maximum Concentration (milligrams per liter)~~
~~D004~~	~~Arsenic~~	~~5.0~~
~~D005~~	~~Barium~~	~~100.0~~
~~D006~~	~~Cadmium~~	~~1.0~~
~~D007~~	~~Chromium~~	~~5.0~~
~~D008~~	~~Lead~~	~~5.0~~
~~D009~~	~~Mercury~~	~~0.2~~
~~D010~~	~~Selenium~~	~~1.0~~
~~D011~~	~~Silver~~	~~5.0~~
~~D012~~	~~Endrin (1,2,3,4,10,10 hexachloro 1,7 epoxy 1,4,4a,5,6,7,8,8a-octahydro 1,4 endo,endo 5,8 dimethano naphthalene)~~	~~0.02~~
~~D013~~	~~Lindane (1,2,3,4,5,6 hexachlorocyclohexane, gamma isomer)~~	~~0.4~~
~~D014~~	~~Methoxychlor (1,1,1 Trichloro 2,2 bis [p methoxphenyl] ethane)~~	~~10.0~~
~~D015~~	~~Toxaphene (C10H10Cl8, Technical chlorinated camphene, 67 69 percent chlorine)~~	~~0.5~~
~~D016~~	~~2,4 D (2,4 Dichlorophenoxyacetic acid)~~	~~10.0~~
~~D017~~	~~2,4,5 TP Silvex (2,4,5 Trichlorophenoxypropionic acid)~~	~~1.0~~

Hazardous Waste Number	Contaminant	CAS No.	Maximum Concentration (milligrams per liter)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	*200.0
D024	m-Cresol	108-39-4	*200.0
D025	p-Cresol	106-44-5	*200.0
D026	Cresol		*200.0
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7

Hazardous Waste Number	Contaminant	CAS No.	Maximum Concentration (milligrams per liter)
D030	2,4-Dinitrotoluene	121-14-2	0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

*If o-, m-, and p-cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 milligrams per liter.

7045.0133 EXEMPTION FROM ~~LISTING~~ REGULATION DUE TO ~~TOXICITY~~ LETHALITY.

Subpart 1. **In general.** A specific generator's waste that meets any of the ~~toxicity~~ lethality characteristics as described in part 7045.0131, subpart 6, ~~items A and B~~ may be exempted from regulation under parts 7045.0100 to 7045.1030 if the generator can demonstrate to the satisfaction of the agency that the waste is not capable of posing a present or potential hazard to human health and the environment if the waste were to be improperly treated, transported, stored, disposed, or managed under routine waste management methods.

Subp. 2. **Factors to be considered.** In demonstrating that a waste should be exempt from regulation under parts 7045.0100 to 7045.1030, the generator must present information related to the following factors:

A. the nature of the ~~toxicity~~ lethality displayed by the waste;

B. the median lethal dose or median lethal concentration of the entire waste and each of the ~~toxic~~ lethal constituents within the waste;

C. the ~~toxic~~ lethal constituent or constituents present in the waste and the respective concentrations;

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[For text of items D and E, see M.R.]

F. based upon the improper or routine waste management methods considered in item E, the following factors:

(1) the potential of the ~~toxic~~ lethal constituent or constituents or any ~~toxic~~ lethal degradation product or products to migrate from the waste into the environment;

(2) the persistence of the ~~toxic~~ lethal constituent or constituents or any ~~toxic~~ lethal degradation product or products;

(3) the degree to which the ~~toxic~~ lethal constituent or constituents or any ~~toxic~~ lethal degradation product or products may bioaccumulate in the environment;

(4) the potential for the ~~toxic~~ lethal constituents or constituents of any ~~toxic~~ lethal degradation product or products to degrade into nonhazardous constituents and the rate of degradation; and

[For text of subitem (5), see M.R.]

[For text of item G, see M.R.]

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~~ toxicity characteristic 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~~ a toxicity characteristic 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, 7045.1300 to 7045.1380, 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.

[For text of subps 2 to 5, see M.R.]

7045.0216 EVALUATION REPORTS TO THE COMMISSIONER.

Subpart 1. **Necessary information.** The commissioner may request at any time that a person producing a waste submit the results of the evaluation of the waste. The person must submit the following information as requested by the commissioner:

[For text of items A and B, see M.R.]

C. The concentration of each component listed in part 7045.0131, subpart 8 found in the leachate of the waste. The person evaluating the waste may submit soft data in lieu of testing the waste if the data is sufficient to demonstrate whether the waste is hazardous or nonhazardous due to ~~EP~~ the toxicity characteristic.

[For text of items D and E, see M.R.]

[For text of subp 2, see M.R.]

7045.0219 SPECIAL REQUIREMENTS FOR SMALL QUANTITY GENERATORS OF HAZARDOUS WASTE.

[For text of subps 1 to 6, see M.R.]

Subp. 7. **Testing.** When testing wastes for the toxicity characteristic of part 7045.0131, subpart 7, a small quantity generator must apply the extraction procedure toxicity test described in Code of Federal Regulations, title 40, part 261, appendix II (1989). Effective March 29, 1991, a small quantity generator must apply the toxicity characteristic leaching procedure of part 7045.0131, subpart 7, when testing wastes for the toxicity characteristic.

7045.0230 CONTENT OF DISCLOSURE.

Subpart 1. **Information required.** Each disclosure must include the following information:

[For text of items A to C, see M.R.]

D. the concentration of each component in part 7045.0131, subpart 8 that is known or suspected to be in the leachate of the waste following the ~~extraction procedure~~ toxicity ~~test~~ characteristic leaching procedure. If a component listed in that exhibit is known or suspected to be in the waste, the results from the ~~extraction procedure~~ toxicity ~~test~~ characteristic leaching procedure for that component must be included unless alternative data approved by the commissioner is submitted;

[For text of items E to I, see M.R.]

[For text of subp 3, see M.R.]

7045.0484 GROUNDWATER PROTECTION.

[For text of subps 1 to 3, see M.R.]

Subp. 4. **Hazardous constituents.** The agency shall specify in the facility permit the hazardous constituents to which the groundwater protection standard applies. Hazardous constituents are constituents identified in part 7045.0141, or constituents which are not listed in part 7045.0141, but which are contained in wastes that meet criteria established in part 7045.0131, subpart 6, for ~~toxicity~~ lethality and which may reasonably be expected to contribute to the ~~toxicity~~ lethality.

[For text of subps 5 to 14, see M.R.]

7045.0634 LAND TREATMENT.

[For text of subps 1 and 2, see M.R.]

Subp. 3. **Waste analysis.** In addition to the waste analyses required by part 7045.0564 before placing a hazardous waste in or on a land treatment facility, the owner or operator shall:

A. determine the concentrations in the waste of any substances which exceed the maximum concentrations contained in part 7045.0131, subpart 8, that cause a waste to exhibit the ~~extraction procedure (EP)~~ toxicity characteristic;

[For text of items B and C, see M.R.]

[For text of subps 4 to 8, see M.R.]

Adopted Rules

The adoption of a rule becomes effective after the requirements of Minn. Stat. §14.14-14.28 have been met and five working days after the rule is published in *State Register*, unless a later date is required by statutes or specified in the rule.

If an adopted rule is identical to its proposed form as previously published, a notice of adoption and a citation to its previous *State Register* publication will be printed.

If an adopted rule differs from its proposed form, language which has been deleted will be printed with strikeouts and new language will be underlined. The rule's previous *State Register* publication will be cited.

An emergency rule becomes effective five working days after the approval of the Attorney General as specified in Minn. Stat. §14.33 and upon the approval of the Revisor of Statutes as specified in §14.36. Notice of approval by the Attorney General will be published as soon as practicable, and the adopted emergency rule will be published in the manner provided for adopted rules under §14.18.

Department of Transportation

Adopted Permanent Rules Relating to Bridge Construction and Reconstruction

The rules proposed and published at *State Register*, Volume 14, Number 46, pages 2625-2629, May 14, 1990 (14 SR 2625), Volume 15, Number 2, page 45, July 9, 1990 (15 SR 45) are adopted as proposed.

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.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF:
5HR-JCK-13

NOV 20 1990

Mr. Randall Hukreide
Acting Supervisor
Rules Unit
Program Development Section
Hazardous Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, Minnesota 55155

RECEIVED
NOV 26 1990
MPCA, HAZARDOUS
WASTE DIVISION

Dear Mr. Hukreide:

Thank you for the opportunity to review Minnesota's draft rules that are analogous to the Federal Double Liner rule of July 15, 1985, and the Toxicity Characteristics rule of March 29, 1990. We have enclosed our comments. We have also reviewed the State's draft household battery management rules, and have no comments.

Please contact Christine Klemme, of my staff, at (312) 886-3715, if you have any questions.

Sincerely yours,

Wm. E. Muno

William E. Muno
Acting Associate Division Director
Office of RCRA

Enclosure

Printed on Recycled Paper

U.S. EPA, Region V Comments on Minnesota's Draft Double Liner and Toxicity Characteristic Rules

Following are U.S. EPA, Region V's comments on Minnesota's draft double liner and toxicity characteristic rules. In conducting our review, we compared the draft State rules to the Federal double liner rule promulgated on July 15, 1985, (50 Federal Register 28702, RCRA Revision Checklist 17H) and the Federal toxicity characteristic rule promulgated on March 29, 1990 (55 Federal Register 11798, RCRA Revision Checklist 74) as amended and corrected on June 29, 1990, (55 Federal Register 26986); August 2, 1990, (55 Federal Register 31387); and August 10, 1990, (55 Federal Register 32733); September 27, 1990, 55 Federal Register 39409; and, October 5, 1990, 55 Federal Register 40837.

I. Double Liner Rules

A) 40 CFR 264.221(c)/7045.0532(3)(b). On page 3, lines 10 and 14, please change "closure" to read "post-closure". The term "closure" refers to the activities undertaken to properly cease operations at a facility. At that time, the owner/operator must certify that there has been no migration of hazardous constituents or wastes. The term "post-closure" refers to the period of time (30 years) after which the closure activities are completed and during which the owner/operator must monitor to insure there is no migration of hazardous constituents or wastes. The Federal rules require that the liner must be constructed of materials to prevent wastes from migrating into the liner during the active life, including the **post-**closure period of the facility.

B) 40 CFR 264.301(c)/7045.0538(3)(c). On page 6, lines 7 and 11, please revise "closure" to read "post-closure" (see above comment).

C) 40 CFR 265.221(a)/7045.0630(1)(a). On page 8, lines 2 and 29, please revise "lines" to read liners".

II.Toxicity Rule

D) 40 CFR 265.273(a)/7045.0634. On page 9, line 29, please insert "equal or" after "substances which" and before "exceed the maximum".

We understand your concern about distinguishing between the terms "toxicity", and, "toxicity characteristic". However, we do not believe that the terms "lethal" and "lethality" are appropriate replacements. Since we cannot see any true distinction between those terms, we recommend that you use a lower case "t" for toxicity, and an uppercase "TC" to refer to the term Toxicity Characteristic. In the alternative, you may propose some other method for distinguishing these terms.

CERTIFICATE OF RESOLUTION ADOPTING RULES

I, Barbara Lindsey Sims, do hereby certify that I am the Deputy Commissioner 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 eighteenth day of December, 1990, 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 hereby approves and adopts the attached rule amendments governing the management, storage, treatment, and disposal of hazardous waste, Minn. Rules pts. 7001.0640, 7045.0102, 7045.0120, 7045.0131, 7045.0133, 7045.0135, 7045.0216, 7045.0219, 7045.0230, 7045.0484, and 7045.0634, pursuant to the authority vested in the Minnesota Pollution Control Agency by Minn. Stat. § 116.12, subd. 1 (1990).

BE IT FURTHER RESOLVED, that prior to publishing the rules as adopted in the State Register, the Deputy Commissioner is authorized to make any form changes to the rules that the Revisor of Statutes requires the Minnesota Pollution Control Agency to make in order to obtain the Revisor's Certification as required by Minn. Stat. § 14.07, subd. 2 (1990).

BE IT FURTHER RESOLVED, that the Minnesota Pollution Control Agency adopts the Findings of Fact, Conclusions, and Order Adopting Rule Amendments and that the Deputy Commissioner is hereby authorized to sign the above-mentioned document on behalf of the Minnesota Pollution Control Agency and to perform the necessary acts to provide that the rule amendments shall have the force and effect of law.

IN WITNESS WHEREOF, I have hereunto subscribed my name this 19 day of December, 1990.

Barbara Lindsey Sims

BARBARA LINDSEY SIMS
Deputy Commissioner

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of Proposed Amendments of the Rules Governing the Management of Hazardous Waste By Use of the Toxicity Characteristic, Minn. Rules Pts. 7001.0640, 7045.0102, 7045.0120, 7045.0131, 7045.0133, 7045.0135, 7045.0216, 7045.0219, 7045.0230, 7045.0484, 7045.0634

FINDINGS OF FACT, CONCLUSIONS, AND ORDER ADOPTING RULES

The above-entitled matter came on for decision before the Minnesota Pollution Control Agency (MPCA) on the day of December 18, 1990. After affording all interested persons the opportunity to present written and oral data, statements, and arguments to the MPCA, in accordance with statutory requirements regarding the adoption of noncontroversial rules, after considering the Statement of Need and Reasonableness, after considering all of the evidence adduced upon the records, files, and proceedings herein, the MPCA, being fully advised in the premises, hereby adopts the following Findings of Fact, Conclusions, and Order:

FINDINGS OF FACT

1. Notice of the MPCA's intent to adopt the above-entitled rule amendments without a public hearing was published in the State Register on October 22, 1990 (15 SR 957-963), and was sent by mail to all persons on the list maintained by the MPCA pursuant to Minn. Stat. §§ 14.14, subd. 1a. and 14.22 (1990) on October 16, 1990.

2. The Statement of Need and Reasonableness was prepared prior to mailing and publication of the notice and was made available to the public.

3. All persons were given the opportunity to submit comments on the rule amendments for 36 days after notice of proposed rulemaking. The 36 day comment period, as set out in the notice, expired on November 26, 1990.

4. No requests for public hearing were received during the comment period.

5. No requests for notice of submission of the adopted rule amendments to the Attorney General were received by the MPCA.

6. During the comment period the MPCA received one written comment letter, from the United States Environmental Protection Agency. The MPCA finds that one modification to the proposed rule amendments is justified by the record in this proceeding, as follows:

The proposed amendments to Minn. Rules pt. 7045.0634, subp. 3, item A adopt amendments from the federally mandated toxicity characteristic rule. The federal amendments replace the reference to the extraction procedure (EP) toxicity characteristic found in this part with a reference to the toxicity characteristic which this rulemaking adopts. The proposed amendments have already incorporated this change.

The federal amendments also change the wording of this item so that when wastes are analyzed for particular constituents using the toxicity characteristic leaching procedure, the concentrations of the constituents in the waste must be determined for those constituents whose concentrations equal or exceed the maximum concentrations allowed for those constituents. Formerly, the concentrations only had to be determined for those wastes whose concentrations exceeded the maximum concentrations, but not for those that equaled the maximum concentrations. The proposed amendments do not currently make this modification. Therefore, the MPCA is adding the words "equal or", as shown below, to the proposed amendments to this item to maintain consistency between state rules and federal regulations. This modification does not constitute a substantial change.

Minn. Rules pt. 7045.0634 is modified to read:

7045.0634 LAND TREATMENT

Subp. 3. Waste Analysis. In addition to the waste analyses required by part 7045.0564 before placing a hazardous waste in or on a land treatment facility, the owner or operator shall:

A. determine the concentrations in the waste of any substances which equal or exceed the maximum concentrations contained in part 7045.0131, subpart 8, that cause a waste to exhibit the toxicity characteristic;

7. The MPCA adopts the Statement of Need and Reasonableness, in its entirety, as the factual basis for the proposed rules. The MPCA hereby incorporates the Statement of Need and Reasonableness into these findings, except as modified in Finding No. 6 above.

8. The above-captioned rule amendments, together with the modifications made by the MPCA in Finding No. 6 above to respond to comments received during the comment period, are needed and reasonable.

CONCLUSIONS

1. The MPCA duly acquired and has jurisdiction over this proceeding.

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

3. All relevant legal and procedural requirements of statute and rule have been complied with.

4. The modifications to the proposed rule amendments are supported by the record and do not result in a substantial change in the proposed rule amendments.

ORDER

(9)

NOW, THEREFORE, IT IS ORDERED, that the attached amendments to Minn. Rules pts. 7001.0640, 7045.0102, 7045.0120, 7045.0131, 7045.0133, 7045.0135, 7045.0216, 7045.0219, 7045.0230, 7045.0484, and 7045.0634 governing the management of hazardous waste, are adopted pursuant to the authority vested in the MPCA by Minn. Stat. § 116.07, subd. 4 (1990).

Dated: 12-19-90

Barbara Lindsey Sims
for Gerald L. Willet
Commissioner

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of Proposed Amendments of the Rules Governing the Management of Hazardous Waste By Use of the Toxicity Characteristic, Minn. Rules Pts. 7001.0640, 7045.0102, 7045.0120, 7045.0131, 7045.0133, 7045.0135, 7045.0216, 7045.0219, 7045.0230, 7045.0484, 7045.0634

FINDINGS OF FACT, CONCLUSIONS, AND ORDER ADOPTING RULES

The above-entitled matter came on for decision before the Minnesota Pollution Control Agency (MPCA) on the day of December 18, 1990. After affording all interested persons the opportunity to present written and oral data, statements, and arguments to the MPCA, in accordance with statutory requirements regarding the adoption of noncontroversial rules, after considering the Statement of Need and Reasonableness, after considering all of the evidence adduced upon the records, files, and proceedings herein, the MPCA, being fully advised in the premises, hereby adopts the following Findings of Fact, Conclusions, and Order:

FINDINGS OF FACT

1. Notice of the MPCA's intent to adopt the above-entitled rule amendments without a public hearing was published in the State Register on October 22, 1990 (15 SR 957-963), and was sent by mail to all persons on the list maintained by the MPCA pursuant to Minn. Stat. §§ 14.14, subd. 1a. and 14.22 (1990) on October 16, 1990.

2. The Statement of Need and Reasonableness was prepared prior to mailing and publication of the notice and was made available to the public.

3. All persons were given the opportunity to submit comments on the rule amendments for 36 days after notice of proposed rulemaking. The 36 day comment period, as set out in the notice, expired on November 26, 1990.

4. No requests for public hearing were received during the comment period.

5. No requests for notice of submission of the adopted rule amendments to the Attorney General were received by the MPCA.

6. During the comment period the MPCA received one written comment letter, from the United States Environmental Protection Agency. The MPCA finds that one modification to the proposed rule amendments is justified by the record in this proceeding, as follows:

The proposed amendments to Minn. Rules pt. 7045.0634, subp. 3, item A adopt amendments from the federally mandated toxicity characteristic rule. The federal amendments replace the reference to the extraction procedure (EP) toxicity characteristic found in this part with a reference to the toxicity characteristic which this rulemaking adopts. The proposed amendments have already incorporated this change.

The federal amendments also change the wording of this item so that when wastes are analyzed for particular constituents using the toxicity characteristic leaching procedure, the concentrations of the constituents in the waste must be determined for those constituents whose concentrations equal or exceed the maximum concentrations allowed for those constituents. Formerly, the concentrations only had to be determined for those wastes whose concentrations exceeded the maximum concentrations, but not for those that equaled the maximum concentrations. The proposed amendments do not currently make this modification. Therefore, the MPCA is adding the words "equal or", as shown below, to the proposed amendments to this item to maintain consistency between state rules and federal regulations. This modification does not constitute a substantial change.

Minn. Rules pt. 7045.0634 is modified to read:

7045.0634 LAND TREATMENT

Subp. 3. Waste Analysis. In addition to the waste analyses required by part 7045.0564 before placing a hazardous waste in or on a land treatment facility, the owner or operator shall:

A. determine the concentrations in the waste of any substances which equal or exceed the maximum concentrations contained in part 7045.0131, subpart 8, that cause a waste to exhibit the toxicity characteristic;

7. The MPCA adopts the Statement of Need and Reasonableness, in its entirety, as the factual basis for the proposed rules. The MPCA hereby incorporates the Statement of Need and Reasonableness into these findings, except as modified in Finding No. 6 above.

8. The above-captioned rule amendments, together with the modifications made by the MPCA in Finding No. 6 above to respond to comments received during the comment period, are needed and reasonable.

CONCLUSIONS

1. The MPCA duly acquired and has jurisdiction over this proceeding.

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

3. All relevant legal and procedural requirements of statute and rule have been complied with.

4. The modifications to the proposed rule amendments are supported by the record and do not result in a substantial change in the proposed rule amendments.

ORDER

NOW, THEREFORE, IT IS ORDERED, that the attached amendments to Minn. Rules pts. 7001.0640, 7045.0102, 7045.0120, 7045.0131, 7045.0133, 7045.0135, 7045.0216, 7045.0219, 7045.0230, 7045.0484, and 7045.0634 governing the management of hazardous waste, are adopted pursuant to the authority vested in the MPCA by Minn. Stat. § 116.07, subd. 4 (1990).

Dated: 12-19-90

Barbara Lindsay Sims
for Gerald L. Willet
Commissioner

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste By Use of the Toxicity Characteristic Minn. Rules 7001.0640, 7045.0102, 7045.0120, 7045.0131, 7045.0133, 7045.0135, 7045.0216, 7045.0219, 7045.0230, 7045.0484, and 7045.0634

AFFIDAVIT OF RECEIVING NO REQUESTS FOR NOTICE OF SUBMISSION OF RULE ADOPTED WITHOUT PUBLIC HEARING TO THE ATTORNEY GENERAL

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Glenn Skuta, being duly sworn says:

1. That he is the person named in the Notice of Intent to Adopt Rules Without a Public Hearing (15 SR 957-963, October 22, 1990) as the person to receive requests for notification of submission of rule adopted without a public hearing to the Attorney General concerning the above-entitled matter.

2. That there were no requests received by the the Minnesota Pollution Control Agency for notification of submission of rule adopted without a public hearing to the Attorney General concerning the above-entitled matter.

Glenn Skuta

Subscribed and sworn to before me this 18 day of December, 1990.

Diane Fox
Notary Public

DIANE FOX
NOTARY PUBLIC — MINNESOTA
RAMSEY COUNTY
My commission expires 2-25-96

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste by the Toxicity Characteristic, Minn. Rules Pts. 7001.0640, 7045.0102, 7045.0120, 7045.0131, 7045.0133, 7045.0135, 7045.0216, 7045.0219, 7045.0230, 7045.0484, and 7045.0634

DECLARATION OF COUNSEL

I, Alan R. Mitchell, Special Assistant Attorney General, do hereby declare that I have examined the above-captioned rules and the supporting rulemaking record, and that, based on my examination, the Administrative Procedure Act and Minnesota Rules ch. 2010 have been followed.

Alan R. Mitchell

Special Assistant
Attorney General

January 10, 1991

Pollution Control Agency

Proposed Permanent Rules Relating to Toxicity Characteristics

Rules as Proposed

7001.0640 ADDITIONAL PART B INFORMATION REQUIREMENTS FOR SURFACE IMPOUNDMENTS, WASTE PILES, LAND TREATMENT UNITS, AND LANDFILLS.

Subpart 1. **Groundwater protection.** The additional information designated in items A to H regarding protection of groundwater is required from owners or operators of hazardous waste facilities containing surface impoundments, waste piles, land treatment units, and landfills, except as otherwise provided in part 7045.0484, subpart 1, item B, and must be submitted with Part B of the permit application. The following information is in addition to the information requirements of parts 7001.0560, 7001.0590, 7001.0600, 7001.0610, and 7001.0620:

[For text of items A to C, see M.R.]

D. A description of any plume of contamination that has entered the groundwater from a regulated unit at the time that the application is submitted that:

(1) delineates the extent of the plume on the topographic map required under part 7001.0560, item R; and

(2) identifies the concentration of each constituent listed in part 7045.0143 throughout the plume or identifies the maximum concentrations of each such constituent in the plume. The commissioner may require this information on additional constituents if waste managed at the facility has met the characteristic of ~~toxicity~~ lethality as defined in part 7045.0131, subpart 6.

[For text of items E to H, see M.R.]

[For text of subp 2, see M.R.]

7045.0102 MIXTURES OF WASTES.

[For text of subpart 1, see M.R.]

Subp. 2. **Mixtures of hazardous and nonhazardous wastes.**

A. A mixture is a hazardous waste if it is a mixture

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of nonhazardous waste and any waste which is hazardous solely because it exhibits the characteristic of ignitability, corrosivity, oxidativity, or reactivity as described in part 7045.0131, unless the resulting mixture no longer exhibits any of the characteristics of ignitability, corrosivity, oxidativity, or reactivity and does not exhibit characteristics of ~~extraction-procedure-(EP)~~ toxicity or ~~toxicity~~ lethality as defined in part 7045.0131.

B. A mixture is a hazardous waste if it is a mixture of nonhazardous waste and any waste listed in part 7045.0135 solely because of ignitability, corrosivity, or reactivity, unless the resulting mixture either no longer exhibits any of the characteristics of ignitability, corrosivity, and reactivity, and does not exhibit characteristics of ~~extraction procedure-(EP)~~ toxicity or ~~toxicity~~ lethality as defined in part 7045.0131, or has been excluded from regulation pursuant to part 7045.0075, subpart 2.

C. A mixture is a hazardous waste if it is a nonsewered mixture of nonhazardous waste and any waste listed in part 7045.0135 (other than wastes listed solely because of ignitability, corrosivity, or reactivity) or any waste which is hazardous because it exhibits the characteristics of ~~extraction procedure-(EP)~~ toxicity or ~~toxicity~~ lethality as identified in part 7045.0131 unless the resulting mixture has been excluded from regulation pursuant to part 7045.0075, subpart 2.

D. A mixture is a hazardous waste if it is a sewered mixture of nonhazardous waste and any waste which is hazardous because it exhibits the characteristics of ~~extraction-procedure (EP)~~ toxicity or ~~toxicity~~ lethality as defined in part 7045.0131 unless ~~prior to~~ before entering the sewer the resulting mixture no longer exhibits the characteristics of ~~extraction-procedure (EP)~~ toxicity or ~~toxicity~~ lethality, and the sewering of the mixture has been approved by the agency pursuant to parts 7045.0220 to 7045.0255. This provision does not apply to those mixtures defined as nonhazardous under item F.

[For text of items E to G, see M.R.]

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[For text of subp 3, see M.R.]

7045.0120 EXEMPT WASTES.

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

[For text of items A to N, see M.R.]

O. spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in part 7045.0020; ~~or~~

P. secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided that:

[For text of subitems (1) and (2), see M.R.]

(3) the secondary materials are never accumulated in such tanks for over 12 months without being reclaimed; and

(4) the reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal~~.~~; or

Q. petroleum-contaminated media and debris that fail the test for the toxicity characteristic in part 7045.0131, subpart 7 (hazardous waste codes D018 to D043 only), and are subject to corrective action regulations under chapter 7150.

7045.0131 CHARACTERISTICS OF HAZARDOUS WASTE.

Subpart 1. **In general.** A waste which is not excluded from regulation as a hazardous waste under part 7045.0120 is a hazardous waste if it exhibits ignitability, corrosivity, reactivity, toxicity, lethality, ~~extraction procedure (EP) toxicity,~~ or is an oxidizer, as described in subparts 2 to 7.

[For text of subps 2 to 5, see M.R.]

Subp. 6. ~~Toxicity~~ Lethality. ~~Toxicity~~ Lethality is determined as follows:

A. A waste exhibits the characteristic of ~~toxicity~~ lethality as determined in item B, if a representative sample of the waste has any one of the following properties:

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[For text of subitems (1) to (4), see M.R.]

B. ~~Toxicity~~ Lethality shall be determined by applying knowledge of materials and processes used, including reasonably available information on the ~~toxicity~~ lethality of the components of the waste. If available information and knowledge are insufficient to reasonably determine ~~toxicity~~ lethality, the generator must notify the commissioner. The commissioner may order additional evaluation as specified in part 7045.0217. Additional evaluation may include testing according to the specifications of item C.

C. ~~Toxicity~~ Lethality shall be determined as described in subitems (1) to (3):

[For text of subitems (1) to (3), see M.R.]

D. A waste that exhibits the characteristics of ~~toxicity~~ lethality, but is not listed as a hazardous waste in part 7045.0135, has the hazardous waste number MN01.

Subp. 7. **Extraction procedure ~~(EP)~~ Toxicity.** Extraction ~~procedure (EP)~~ Toxicity is determined as follows:

A. A waste exhibits the characteristic of ~~extraction procedure (EP)~~ toxicity if, using the test methods described in Code of Federal Regulations, title 40, part 261, appendix II ~~(1983)~~, as amended, or equivalent methods approved by the commissioner under the procedures ~~set forth~~ in part 7045.0075, subpart 1, the extract from a representative sample of the waste contains any of the contaminants listed in subpart 8 at a concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering, is considered to be the extract.

B. A waste that exhibits the characteristic of ~~extraction procedure (EP)~~ toxicity, but is not listed as a hazardous waste in part 7045.0135, has the hazardous waste number specified in subpart 8 which corresponds to the toxic contaminant causing it to be hazardous.

[For text of item C, see M.R.]

Subp. 8. **Maximum concentration of contaminants for**

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~~Characteristic-of-Extraction-Procedure-(EP)~~ the toxicity characteristic.

~~Hazardous Waste Number~~	~~Contaminant~~	~~Maximum Concentration (milligrams per liter)~~
~~D004~~	~~Arsenic~~	~~5.0~~
~~D005~~	~~Barium~~	~~100.0~~
~~D006~~	~~Cadmium~~	~~1.0~~
~~D007~~	~~Chromium~~	~~5.0~~
~~D008~~	~~Lead~~	~~5.0~~
~~D009~~	~~Mercury~~	~~0.2~~
~~D010~~	~~Selenium~~	~~1.0~~
~~D011~~	~~Silver~~	~~5.0~~
~~D012~~	~~Endrin-(1,2,3,4,10,10-hexachloro-1,7-epoxy 1,4,4a,5,6,7,8,8a-octahydro-1,4-endo,endo 5,8-dimethano-naphthalene)~~	~~0.02~~
~~D013~~	~~Lindane-(1,2,3,4,5,6-hexachlorocyclohexane, gamma-isomer)~~	~~0.4~~
~~D014~~	~~Methoxychlor-(1,1,1-Trichloro-2,2-bis (p-methoxphenyl)-ethane)~~	~~10.0~~
~~D015~~	~~Toxaphene-($C_{10}H_{10}Cl_8$ Technical-chlorinated-camphene,-67-69 percent-chlorine)~~	~~0.5~~
~~D016~~	~~2,4-D-(2,4-Dichlorophenoxyacetic-acid)~~	~~10.0~~
~~D017~~	~~2,4,5-TP-Silvex (2,4,5-Trichlorophenoxypropionic-acid)~~	~~1.0~~

Hazardous Waste Number	Contaminant	CAS No.	Maximum Concentration (milligrams per liter)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	*200.0
D024	m-Cresol	108-39-4	*200.0
D025	p-Cresol	106-44-5	*200.0
D026	Cresol		*200.0
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5

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D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

*If o-, m-, and p-cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 milligrams per liter.

7045.0133 EXEMPTION FROM ~~LISTING~~ REGULATION DUE TO ~~TOXICITY~~ LETHALITY.

Subpart 1. **In general.** A specific generator's waste that meets any of the ~~toxicity~~ lethality characteristics as described in part 7045.0131, subpart 6, ~~items A and~~ B may be exempted from regulation under parts 7045.0100 to 7045.1030 if the generator can demonstrate to the satisfaction of the agency that the waste is not capable of posing a present or potential hazard to human health and the environment if the waste were to be improperly treated, transported, stored, disposed, or managed under routine waste management methods.

Subp. 2. **Factors to be considered.** In demonstrating that a waste should be exempt from regulation under parts 7045.0100 to 7045.1030, the generator must present information related to the following factors:

A. the nature of the ~~toxicity~~ lethality displayed by the waste;

B. the median lethal dose or median lethal concentration of the entire waste and each of the ~~toxic~~ lethal constituents within the waste;

C. the ~~toxic~~ lethal constituent or constituents present in the waste and the respective concentrations;

[For text of items D and E, see M.R.]

F. based upon the improper or routine waste management methods considered in item E, the following factors:

(1) the potential of the ~~toxic~~ lethal constituent or constituents or any ~~toxic~~ lethal degradation product or products to migrate from the waste into the environment;

(2) the persistence of the ~~toxic~~ lethal

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constituent or constituents or any ~~toxic~~ lethal degradation product or products;

(3) the degree to which the ~~toxic~~ lethal constituent or constituents or any ~~toxic~~ lethal degradation product or products may bioaccumulate in the environment;

(4) the potential for the ~~toxic~~ lethal constituents or constituents of any ~~toxic~~ lethal degradation product or products to degrade into nonhazardous constituents and the rate of degradation; and

[For text of subitem (5), see M.R.]

[For text of item G, see M.R.]

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~~ toxicity characteristic 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~~ a toxicity characteristic 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, 7045.1300 to 7045.1380, and the agency's permitting procedures in chapter 7001.

The following hazardous wastes listed in subparts 2 and 3

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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.

[For text of subps 2 to 5, see M.R.]

7045.0216 EVALUATION REPORTS TO THE COMMISSIONER.

Subpart 1. **Necessary information.** The commissioner may request at any time that a person producing a waste submit the results of the evaluation of the waste. The person must submit the following information as requested by the commissioner:

[For text of items A and B, see M.R.]

C. The concentration of each component listed in part 7045.0131, subpart 8 found in the leachate of the waste. The person evaluating the waste may submit soft data in lieu of testing the waste if the data is sufficient to demonstrate whether the waste is hazardous or nonhazardous due to ~~EP~~ the toxicity characteristic.

[For text of items D and E, see M.R.]

[For text of subp 2, see M.R.]

7045.0219 SPECIAL REQUIREMENTS FOR SMALL QUANTITY GENERATORS OF HAZARDOUS WASTE.

[For text of subps 1 to 6, see M.R.]

Subp. 7. **Testing.** When testing wastes for the toxicity characteristic of part 7045.0131, subpart 7, a small quantity generator must apply the extraction procedure toxicity test described in Code of Federal Regulations, title 40, part 261, appendix II (1989). Effective March 29, 1991, a small quantity generator must apply the toxicity characteristic leaching procedure of part 7045.0131, subpart 7, when testing wastes for the toxicity characteristic.

7045.0230 CONTENT OF DISCLOSURE.

Subpart 1. **Information required.** Each disclosure must include the following information:

[For text of items A to C, see M.R.]

D. the concentration of each component in part

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7045.0131, subpart 8 that is known or suspected to be in the leachate of the waste following the ~~extraction-procedure~~ toxicity ~~test~~ characteristic leaching procedure. If a component listed in that exhibit is known or suspected to be in the waste, the results from the ~~extraction-procedure~~ toxicity ~~test~~ characteristic leaching procedure for that component must be included unless alternative data approved by the commissioner is submitted;

[For text of items E to I, see M.R.]

[For text of subp 3, see M.R.]

7045.0484 GROUNDWATER PROTECTION.

[For text of subps 1 to 3, see M.R.]

Subp. 4. **Hazardous constituents.** The agency shall specify in the facility permit the hazardous constituents to which the groundwater protection standard applies. Hazardous constituents are constituents identified in part 7045.0141, or constituents which are not listed in part 7045.0141, but which are contained in wastes that meet criteria established in part 7045.0131, subpart 6, for ~~toxicity~~ lethality and which may reasonably be expected to contribute to the ~~toxicity~~ lethality.

[For text of subps 5 to 14, see M.R.]

7045.0634 LAND TREATMENT.

[For text of subps 1 and 2, see M.R.]

Subp. 3. **Waste analysis.** In addition to the waste analyses required by part 7045.0564 before placing a hazardous waste in or on a land treatment facility, the owner or operator shall:

A. determine the concentrations in the waste of any substances which exceed the maximum concentrations contained in part 7045.0131, subpart 8, that cause a waste to exhibit the ~~extraction-procedure (EP)~~ toxicity characteristic;

[For text of items B and C, see M.R.]

[For text of subps 4 to 8, see M.R.]

Approved
by Revisor _____

Office of the Revisor of Statutes

Administrative Rules

TITLE: Proposed Permanent Rules Relating to Toxicity Characteristics

AGENCY: Pollution Control Agency

MINNESOTA RULES: Chapters 7001 and 7045

The attached rules are approved for publication in the State Register

Carla M. Riehle
Assistant Revisor