

STATE OF MINNESOTA  
MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of the  
Proposed Amendment of  
Rules Governing the Land  
Disposal Restrictions for  
Hazardous Wastes,  
Minn. Rules pts. 7001.0150,  
7001.0560, 7001.0650,  
7001.0730, 7045.0020,  
7045.0075, 7045.0125,  
7045.0127, 7045.0135,  
7045.0214, 7045.0365,  
7045.0450, 7045.0458,  
7045.0478, 7045.0552,  
7045.0564, 7045.0584,  
7045.1300, 7045.1305,  
7045.1310, 7045.1315,  
7045.1320, 7045.1325,  
7045.1330, 7045.1350,  
7045.1355, 7045.1360,  
and 7045.1380

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 "MPCA") governing the management, treatment, storage, and disposal of hazardous waste. The amendments will incorporate provisions promulgated by the U.S. Environmental Protection Agency (hereinafter "EPA") under the Hazardous and Solid Waste Amendments of 1984 (hereinafter "HSWA"). The amendments also incorporate changes necessary to maintain consistent rule language.

The EPA promulgated regulations under HSWA governing land disposal restrictions for hazardous waste and published these regulations in the November 7, 1986, Federal Register (51 FR 40572-40654) (Exhibit 1) and the July 8, 1987, Federal Register (52 FR 25760-25792) (Exhibit 2). The November 7, 1986, regulations are hereinafter referred to as the solvent and dioxin land disposal restrictions and the July 8, 1987, regulations are

hereinafter referred to as the California List land disposal restrictions. The proposed amendments to Minnesota's hazardous waste rules incorporate all of the federal regulations resulting from the November 7, 1986, publication and the July 8, 1987, publication.

The EPA published corrections to the solvent and dioxin land disposal restrictions in the June 4, 1987, Federal Register (52 FR 21010-21018) (Exhibit 3) which are also incorporated into the amendments.

These rule amendments are proposed pursuant to the MPCA's authority under Minn. Stat. § 116.07, subd. 4 (1986).

This Statement of Need and Reasonableness is divided into seven parts. Following this introduction, Part II contains the MPCA's explanation of the need for the proposed amendments. Part III discusses the reasonableness of the proposed amendments. Part IV documents how the MPCA has considered the methods of reducing the impact of the proposed amendments on small businesses as required by Minn. Stat. § 14.115, subd. 2 (1986). Part V documents the economic factors the MPCA considered in drafting the amendments as required by Minn. Stat. § 116.07, subd. 6 (1986). Part VI sets forth the MPCA's conclusion regarding the amendments. Part VII contains a list of the exhibits relied on by the MPCA to support the proposed amendments. The exhibits, which are incorporated by reference into this Statement of Need and Reasonableness, are available for review at the MPCA's offices at 520 Lafayette Road, St. Paul, Minnesota 55155.

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

Minn. Stat. ch. 14 (1986) requires an agency to make an affirmative presentation of facts establishing the need for and reasonableness of the rules or amendments proposed. In general terms, this means that an agency

must set forth the reasons for its proposal, and the reasons must not be arbitrary or capricious. However, to the extent that need and reasonableness are separate, need has come to mean that a problem exists which requires administrative attention and reasonableness means that the solution proposed by an agency is appropriate.

Need is a broad test that does not easily lend itself to evaluation of each proposed revision. In the broad sense, the need for amendments to the MPCA's rules governing the management, treatment, storage, and disposal of hazardous waste has two bases: (1) the need for consistency with the federal hazardous waste regulations, and (2) the need for rules which provide protection of human health and the environment without unduly restricting normal commerce.

A. Need for Consistency with Federal Regulations

In 1976, Congress adopted RCRA to regulate the management of hazardous waste. 42 U.S.C. § 6901 et seq. In adopting RCRA, Congress provided for eventual State control of the hazardous waste program and set up the mechanism for the EPA to grant authority to states to operate the program. In states that receive authorization, the State environmental agency administers the State program in lieu of the federal program. To receive and maintain authorization, the State program must be "equivalent" to the federal program and consistent with federal or State programs applicable in other states. EPA has defined equivalent to mean that the state requirements are at least as stringent as federal requirements. In terms of consistency, EPA's goal is to achieve an integrated national program which requires that final state programs do not conflict with each other or with the federal program.

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

However, the authorization did not extend to those requirements promulgated pursuant to HSWA. To administer a program that includes the HSWA requirements a state must obtain separate authorization. Before the MPCA can apply for authorization under HSWA, all rule amendments necessary to maintain equivalency to the federal program must be in effect in Minnesota. Although a state program may be more stringent than the federal requirements, the MPCA believes it is important to maintain as much consistency as possible between Minnesota's rules and the federal program. Much of the hazardous waste generated in Minnesota must be sent to other states for treatment or disposal because Minnesota has no commercial disposal facilities and only very limited commercial treatment facilities. This means that many generators must be knowledgeable about requirements of both the State and federal hazardous waste programs. The need to comply with multiple sets of rules makes compliance difficult. Therefore, to the extent it can be accomplished without posing a threat to human health and the environment, Minnesota should incorporate EPA's amendments.

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

The proposed amendments to the Minnesota hazardous waste rules include provisions protective of human health and the environment. The amendments include provisions which prohibit the land disposal of hazardous waste unless it is treated to meet specific standards. The standards for specific waste treatment are specified in the amendments, as are cross-references to corresponding management standards and permit rules.

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

The MPCA is required by Minn. Stat. ch. 14 (1986) to make an affirmative presentation of facts establishing the reasonableness of the proposed rules or amendments. Reasonableness is the opposite of arbitrariness and capriciousness. It means that there is a rational basis for the MPCA's action. The reasonableness of each of the proposed amendments is discussed below.

A. Minn. Rules pt. 7001.0150 Terms and Conditions of Permits

Minn. Rules pt. 7001.0150 establishes the terms and conditions for hazardous waste facility permits. The rule currently requires that each draft and final permit include all conditions necessary to comply with State or federal statutes or rules. The amendments add the requirements of the facility standards and the newly added land disposal restrictions. Although the reference to the applicable existing facility standards has not been part of the State rules, it is appropriate and reasonable to provide it now as part of the clarifying changes required for incorporating the land disposal restrictions. The additions clarify which standards apply to draft and final permits. The clarification will assist the regulated community and thus improve compliance, and also, provide the same cross-references as the corresponding federal regulations under 40 C.F.R. § 270.32(b)(1).

B. Minn. Rules pt. 7001.0560 General Information Requirements for Part B of Application

Minn. Rules pt. 7001.0560 specifies the information that must be provided in an application for a Part B facility permit. A land disposal facility that is subject to the land disposal restrictions must, in its permit application, demonstrate compliance with applicable requirements (see A. above). However, in some cases it is possible for the owner or operator of a land disposal facility to petition for time extensions or to apply standards that differ from the requirements of the rules. The rule requires the owner or operator to provide evidence of approval of a petition where one has been granted. Evidence of approval of extensions and petitions granted under the land disposal restrictions is especially important because they must be obtained from EPA, not the MPCA. It is reasonable to require evidence of the EPA approval to insure that the federal standards have been met and to expedite the administration of the permit. This requirement corresponds to 40 C.F.R. § 270.14(b)(21).

C. Minn. Rules pt. 7001.0650 Interim Status

Minn. Rules pt. 7001.0650 establishes conditions for obtaining and maintaining interim status. While a facility has interim status it must not be significantly altered. The existing rule specifies that any alteration that will amount to reconstruction of the facility is not allowed. However, the amendment specifies that the assessment of whether or not the facility is reconstructed must not consider changes made to comply with the tank standards or to comply with the land disposal restrictions. It is reasonable to make

this kind of exception in recognition of the fact that the waste treatment industry will need time to fully respond to the requirements imposed by the land disposal restrictions. Without such an exception, an interim status facility that needed to change in a manner amounting to reconstruction, in order to accept a waste covered by the land disposal restrictions, would lose its interim status by making the change. It is not reasonable to penalize the owners and operators of facilities by requiring them to obtain a permit in advance of their permit schedule, solely because they have made improvements to achieve compliance with the land disposal restrictions.

This exception is provided in the federal regulations under 40 C.F.R. § 270.72(e). However, as the land disposal restrictions were published in the Federal Register, (Exhibit 2) previous federal rule language was inadvertently deleted regarding changes made solely for purposes of complying with tank standards. The exception for tank standards was published in the July 14, 1986, Federal Register under 40 C.F.R. § 270.42(e), and incorporated into the State rules in amendments adopted by the MPCA on February 22, 1988. Conversations with Lillian Bagus of EPA Headquarters and Christine Klemme of EPA, Region V confirmed that the omission of the language was unintentional. Therefore, the adopted rule language regarding tank standards is retained and the new federal provisions regarding the land disposal restrictions are added to it.

D. Minn. Rules pt. 7001.0730 Modification of Permits; Revocation and Reissuance of Permits

Minn. Rules pt. 7001.0730 establishes conditions for modifying and reissuing hazardous waste facility permits. Subpart 4 specifies a number of

situations that constitute a minor permit modification. Minor permit modifications can be made without extensive administrative procedures or public hearings. The amendment to subitem L allows the treatment of hazardous wastes that are not specified in the permit if certain conditions are met. These conditions are, that the wastes must be subject to the land disposal restrictions, the treatment facility must conduct the treatment specified in the land disposal restrictions for the waste, the treatment of the waste must not present a substantial risk to human health and the environment, and approval of the minor modification must be granted by the State or applicable federal authority.

The amendment to subitem M allows permitted facilities to change their operations to treat wastes governed by the land disposal restrictions. Again, the amendments specify that certain conditions must be met before the change will be considered a minor modification. The most significant of these conditions are the requirements that the treatment can only occur in containers or tanks and that it cannot involve the addition of new treatment processes. The amendments also require that the facility owner or operator initiate the process to modify the permit through the major modification process and demonstrate in that request that the operational change is necessary to comply with the land disposal restrictions. Pending the decision on the major modification, the facility must be operated to meet applicable interim status and land disposal restriction requirements.

These amendments correspond to federal permit conditions under 40 C.F.R. § 270.42(o). Their reasonableness is discussed in the preamble to the federal regulations (Exhibit 2, 40598-40599). In this discussion, EPA recognizes the



fact that the land disposal restrictions will place an increased demand on hazardous waste treatment facilities. Permitted facilities do not currently have the regulatory flexibility to add new wastes to their permit conditions or to change their permitted operations to respond to the need for certain types of waste treatment. Therefore, it is reasonable to provide flexibility with these additional minor modification provisions. By allowing the treatment of certain new wastes or changes to the operation, without going through the entire permit revision process, the amendments will encourage the waste treatment industry to respond to the needs imposed by the land disposal restrictions.

E. Minn. Rules pt. 7045.0020 Definitions

The amendments add three new definitions to the hazardous waste rules. The definitions of halogenated organic compounds, land disposal, and polychlorinated biphenyls directly correspond to definitions in 40 C.F.R. § 268.2(a). Definitions of the terms maintain consistency with the federal regulations and provide clarification regarding their meaning.

EPA opted to add these definitions under 40 C.F.R. part 268, which specifically addresses the land disposal restrictions, instead of under the federal hazardous waste definition subpart of 40 C.F.R. § 260.10. Under the federal rulemaking convention, definitions are frequently included near the part of the regulations to which they apply. However, under Minnesota's rulemaking convention, definitions are generally provided in the part of the rules specifically established for definitions. The MPCA believes this is a more accessible format for providing definitions and enables the regulated community to find a definition without extensive knowledge of where it is used within the rules.

The federal regulations also provide a definition of hazardous constituents. However, the MPCA does not believe it is necessary to add this definition to clarify this aspect of the rules. Hazardous constituents are all the wastes identified under Minn. Rules pt. 7045.0141. Because this list corresponds to the federal definition that references Appendix VIII of 40 C.F.R., part 261, it would be redundant to also provide the federal definition.

F. Minn. Rules pt. 7045.0075 Petitions

Three new petition options are provided by the amendments that add subparts 6, 7 and 8 to Minn. Rules pt. 7045.0075. Under the federal regulations, these options for reduced regulation are addressed under 40 C.F.R., part 268, which specifically addresses the land disposal restrictions. However, the MPCA believes it is reasonable to address these options under the part of the State rules that addresses other petition options. Although this causes the format of the State rules to differ from the federal regulations, it will not result in any substantive difference between the State and federal land disposal restriction programs. It is reasonable to maintain consistency with the current format of the State rules by addressing the land disposal restrictions options in Minn. Rules pt. 7045.0075 with other petition options.

Subpart 6 of Minn. Rules pt. 7045.0075 provides for petitions for case-by-case extensions of the effective date of a land disposal restriction. The amendments only provide a reference to the requirements of the federal regulations regarding the granting of case-by-case extensions and do not provide for any MPCA involvement in such petitions.

There are two bases for the reasonableness of the MPCA's decision to refer only to the federal regulations regarding the granting of case-by-case extensions and to not impose any State conditions for these petitions. These are: (1) the fact that EPA will not delegate authorization for states to make such decisions and; (2) the fact that the decision to grant or deny a case-by-case extension must be based on review of national capacity for waste treatment.

1. Lack of authorization to review case-by-case extension petitions.

In the July 8, 1987, Federal Register (Exhibit 2, 25783). EPA published their decision to not delegate to states the authority to grant case-by-case extensions under 40 CFR § 268.5. Without EPA authorization, the MPCA's actions would be limited to either agreeing with an EPA decision to grant or deny a petition or to denying a petition that EPA had decided to grant. In no case would the MPCA be able to supersede an EPA denial and grant a petition for a case-by-case extension. Because of the limited range of action that will be allowed to the MPCA, it is reasonable to refer such decisions to EPA and avoid unnecessary duplication of efforts and unreasonable delay in the review process.

2. Need for consideration of national capacity. A generator

requesting a case-by-case extension must be able to demonstrate that they cannot provide the required level of treatment for their waste by the time specified in the land disposal restrictions. The review of such a demonstration must include consideration of all the treatment options that

would be available to the petitioner. In many cases, national capacity for treating waste is the limiting factor in meeting the land disposal restrictions. Even if a generator is able to pay transport and treatment costs, it may not be possible to obtain the necessary treatment due to the high demand for limited treatment facility services. The determination of whether or not treatment capacity is available for a particular waste at a given time will be very difficult. Such a determination is beyond the scope of the MPCA's routine activities. It is therefore reasonable to refer such decisions to the EPA as the most appropriate authority for determining the validity of petitions dealing with treatment capacity at the national level.

Subpart 7 establishes a procedure for petitions to allow land disposal of a prohibited waste. This petition option is based on the provisions established in 40 C.F.R. § 268.6 that allow untreated waste to be disposed if it can be demonstrated that there will be no migration of hazardous constituents from the disposal unit or injection zone. The amendments establish specific criteria for the preparation and review of the petitions. These include the submittal of information to adequately characterize the waste and the disposal facility. In addition, subpart 7 requires public notification of the petition being considered and establishes conditions for the term of such petitions. The reasonableness of these conditions and criteria for the review of no-migration petitions is discussed in the federal preamble (Exhibit 1, 40605). All of the conditions and criteria in the amendments are the same as the corresponding federal petition criteria except that at each point where the federal criteria reference the EPA Administrator, the amendments refer instead to the MPCA.

EPA will not delegate authority to Minnesota to grant no-migration petitions. It is reasonable, however, to require MPCA approval of the petitions as well as EPA approval. No-migration petitions differ from the other new petition options found in subparts 6 and 8. In those cases, review of the petition involves consideration of national concerns and the approval of the petition would have no effect on Minnesota's environment. However, no-migration petitions may be sought by facility owners and operators and will be based on determination of site specific factors. If the facility is located in Minnesota, MPCA has a legitimate interest in the decision of whether or not to grant the petition. Even though the MPCA will not be authorized to supercede an EPA decision to deny a petition, the MPCA can deny a petition that EPA has granted.

Because EPA will not grant authorization to the MPCA to grant no migration petitions, it is necessary to also provide a reference to the federal regulations governing these petitions. This is reasonable to insure that prospective petitioners are aware that the MPCA review is conducted in conjunction with the EPA review and does not only exist as a State rule requirement.

Subpart 8 establishes the procedure for petitions for an alternate treatment standard or technology. The conditions for these petitions are similar to the conditions regarding petitions for case-by-case extensions as discussed under subpart 6. EPA will not grant authorization to states to review petitions for alternate treatment standards or technologies and the criteria for the review of the petitions involves consideration of factors that must be evaluated on a national level. For the same reasons discussed

under subpart 6, the MPCA believes it is reasonable to refer these petition requests to EPA. Therefore, the amendments only reference the federal petition criteria of 40 C.F.R. §§ 268.42(b) and 268.44. It is reasonable to include this reference in the State rules so that the option for such petition requests is available to the regulated community. Without a reference to the federal regulations in the State rules, such petitions, when granted by EPA, would not be applicable in Minnesota.

G. Minn. Rules pt. 7045.0125 Management of Waste by Use, Reuse, Recycling and Reclamation

Minn. Rules pt. 7045.0125 establishes the requirements for recycled hazardous wastes. Subpart 4 identifies certain wastes that, when recycled, are exempted from the management requirements in the hazardous waste rules. The wastes that are exempted from further regulation are industrial ethyl alcohol, used batteries returned to the manufacturer for reclamation and scrap metal. Additional treatment under the land disposal restrictions is not required for these exempted wastes. It is therefore reasonable to provide this reference in the amendments to clarify their continued exempted status. This amendment corresponds to the federal provision under 40 C.F.R. § 261.6(a)(3).

Subpart 4, item A establishes the requirements applicable to wastes that are stored prior to recycling. The land disposal restrictions are applicable to stored wastes and, therefore, it is reasonable to include a reference to the applicable land disposal restrictions being added in this rulemaking. This amendment corresponds to 40 C.F.R. § 261.6(c)(1). In the federal rule, EPA has added a parenthetical clarification that the recycling process itself

is exempt from regulation, only the storage is subject to regulation. Existing federal and State rules apply the facility standards to the storage of waste prior to recycling. It is a reasonable extension of this established concern for stored waste to also apply the storage restrictions of the land disposal restrictions to stored wastes. The application of the storage restrictions of the land disposal restrictions will ensure that restricted wastes are processed in a timely manner.

H. Minn. Rules pt. 7045.0127 Residues in Empty Containers and Empty Inner Liners

Minn. Rules pt. 7045.0127 establishes criteria for the determination of whether or not a container is empty. The residues that remain in a container, after it has been emptied to meet the criteria of this part, are not subject to further regulation as hazardous wastes. Because residues are not subject to regulation under the generation, transportation or facility standards, it is reasonable to also except them from regulation under the land disposal restrictions being added in this rulemaking. It is not the intent of the MPCA to regulate empty containers or empty inner liners or to apply the land disposal restrictions to their management. This provision corresponds to the federal requirements under 40 C.F.R. § 261.7.

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

Minn. Rules pt. 7045.0135 lists the wastes that have been determined to be hazardous and therefore subject to regulation under chapter 7045. The actual lists of wastes are provided in subparts 2 to 5. Subpart 1 establishes general conditions for the use of the lists and the corresponding hazardous waste numbers. The rule requires that the hazardous waste number be used in

complying with the disclosure and reporting requirements of the generator, transporter and facility standards. The hazardous waste number is also required for certain of the land disposal restrictions requirements being added in this rulemaking. The use of the hazardous waste number is reasonable because it provides clear identification of the waste in a form that is readily understood by individuals at each step of the waste management process. Providing this cross reference to the land disposal restrictions requirements will notify the regulated community that additional requirements exist regarding the use of the hazardous waste number. This provision corresponds to 40 C.F.R. § 262.11.

J. Minn. Rules pt. 7045.0214 Evaluation of Wastes

Minn. Rules pt. 7045.0214 requires the evaluation of waste to determine if it is hazardous. The amendment to subpart 1 provides a directive that when a waste is determined to be hazardous, the generator must refer to the land disposal restrictions for further restrictions or possible exclusions. This is a reasonable directive because of the fact that the land disposal restrictions are all contained in a few specific provisions that are located in a different part of the rules from the existing generator, transporter and facility standards. Therefore, it is necessary to provide an additional reference to these separate requirements and to possible exclusions, to assist the regulated community in complying with the newly added land disposal restrictions. This provision corresponds to 40 C.F.R. § 262.11.

K. Minn. Rules pt. 7045.0450 Facilities Governed by Facility Standards

Minn. Rules pt. 7045.0450 provides an introduction to the hazardous waste facility standards by establishing the applicability of the standards and



their relationship to the interim status standards and by describing the exceptions to the facility standards. The amendments add a new paragraph to subpart 1 that provides a cross-reference to the land disposal restrictions. This added paragraph applies the facility standards to the owners or operators of all facilities that manage wastes referred to under the land disposal restrictions. This provision was added to the federal rules as a correction to 40 C.F.R. § 264.1. In the preamble EPA states that this cross-reference was inadvertently omitted when the land disposal restrictions were published and is added to clarify the fact that the land disposal restrictions apply regardless of permit status (Exhibit 3, page 21010). It is reasonable to add the same clarifying provision to the State rules to maintain consistency with the federal regulations.

L. Minn. Rules pt. 7045.0458 Waste Analysis Requirements

Minn. Rules pt. 7045.0458 establishes the requirements for the owners or operators of hazardous waste facilities to conduct waste analyses on the wastes to be managed at the facility. Subpart 1 requires that the analysis contain all the information needed to dispose of the waste in accordance with the facility standards. The amendments add the requirement that the analysis also include the information needed to comply with the land disposal restrictions. This cross-reference is reasonable to direct the regulated community to the newly added waste analysis conditions and to provide consistency with the corresponding requirements of 40 C.F.R. § 264.13(a)(1).

Subpart 2 also adds cross-references to the land disposal restrictions. The amendment to subpart 2, item F corresponds to 40 C.F.R. § 264.13(b)(6) and the added provision under subpart 2, item H corresponds to 40 C.F.R.

§ 264.13(b)(7). The addition of these provisions is reasonable to provide necessary cross-references to the land disposal restrictions and consistency with the federal regulations.

M. Minn. Rules pt. 7045.0478 Operating Record

Minn. Rules pt. 7045.0478 requires the maintenance of an operating record for hazardous waste facility operation. Because the land disposal restrictions require additional waste analyses and management practices, the operating record requirements must be amended to reflect the addition of these requirements. Subpart 3, item E, and items M to Q require that the operating record include information specifically addressing requirements imposed by the land disposal restrictions. These operating record requirements correspond to the federal provisions under 40 C.F.R. § 264.73(b)(3) and (10) to (14). It is reasonable to provide this information so that the regulated community will know the information that must be maintained in the operating record and to insure consistency with the federal regulations.

N. Minn. Rules pt. 7045.0552 Facilities Governed by Interim Status

Minn. Rules pt. 7045.0552 provides an introduction to the interim status standards. The amendments add a paragraph to subpart 1 to clarify the applicability of the land disposal restrictions to interim status facilities. This provision is reasonable for the reasons discussed in section K of this Statement of Need and Reasonableness. The amendment corresponds to 40 C.F.R. § 265.1.

O. Minn. Rules pt. 7045.0564 Waste Analysis Requirements

Minn. Rules pt. 7045.0564 establishes the waste analysis requirements that are applicable to the owners or operators of interim status hazardous waste facilities. These waste analysis requirements correspond to the

requirements for permitted facilities and their reasonableness is discussed in more detail under section L of this Statement of Need and Reasonableness. The cross-references and the conditions applicable to surface impoundments are the same as the requirements of the federal regulations under 40 C.F.R.

§ 265.13(b).

P. Minn. Rules pt. 7045.0584 Operating Record

Minn. Rules pt. 7045.0584 requires the maintenance of an operating record of specific facility information. The amendments to subpart 3 require that specific information associated with the land disposal restrictions be retained in the facility record. The information required by the amendments is the same for permitted and for interim status facilities. The reasonableness of this amendment is discussed in more detail in section M of this Statement of Need and Reasonableness. These requirements correspond to the federal interim status requirements under 40 C.F.R. § 265.73(b)(3) and (8) to (12).

Q. Minn. Rules pt. 7045.1300 Land Disposal Restrictions;  
Applicability and Exemptions

Minn. Rules pt. 7045.1300 provides an introduction to the portion of the hazardous waste rules that are being added to specifically address the land disposal restrictions. This part of the amendments corresponds to the federal requirements of 40 C.F.R. § 268.1, which establishes the purpose, scope and applicability of the federal land disposal restrictions.

Subpart 1 establishes the applicability of the land disposal restrictions and identifies the persons who are subject to regulation under the requirements that follow. It is reasonable to identify the regulated

community at this point because the land disposal restrictions differ from the other parts of chapter 7045 in that they establish separate requirements that are only applicable to certain individuals. It is especially important to clearly define the extent of the applicability of the land disposal restrictions because they will change periodically as new wastes are addressed.

Subpart 2 provides a list of exemptions from the land disposal restrictions. These are the same exemptions that are provided under the federal regulations. Two of the exemptions refer to the petition procedures previously discussed under section F of this Statement of Need and Reasonableness. It is reasonable to exempt wastes that have been the subject of a successful petition to the MPCA or EPA.

The amendments also exempt wastes resulting from Comprehensive Environmental Response Compensation and Liability Act (CERCLA) activities until November 8, 1988. EPA provided a 24-month extension for CERCLA wastes when the federal land disposal restrictions were first published in November 1986. The extension is incorporated into the amendments with a November 8, 1988 effective date. After that date, CERCLA wastes will be subject to full regulation under the State and federal land disposal restrictions. Additional discussion of the type of wastes exempted under this CERCLA provision is provided in the federal preamble (Exhibit 1, pages 40583-40584).

The amendments also provide exemptions for small quantity generators of less than 100 kilograms of hazardous waste a month. Although the existing federal and MPCA programs differ in their small quantity generator exemptions, the MPCA believes that it is reasonable to provide the same land disposal exemption as the EPA regulations for small quantity generators of less than 100 kilograms a month. Much of Minnesota's hazardous waste must be

transported to other states for treatment and disposal. The factors EPA considered in granting this exemption, such as national treatment capacity and risks presented by disposal of untreated wastes, are equally relevant for Minnesota's generators. It is not reasonable to establish a separate universe of wastes that are regulated only by Minnesota's hazardous waste rules when this category of generators will be managing their waste on a national level.

Farmers disposing of waste pesticides are also exempted from all of the requirements of the land disposal restrictions. As discussed for small quantity generators, it is reasonable in this case to provide the same exemptions to the land disposal restrictions in the State rules as are provided in the federal regulations so that the same universe of wastes is regulated.

R. Minn. Rules pt. 7045.1305 Dilution Prohibited as a Substitute  
for Treatment

The amendments provide a specific prohibition against dilution. In developing the land disposal restrictions, EPA recognized that dilution of wastes could be used to circumvent the established treatment standards. Because dilution is not an acceptable treatment method for hazardous waste, it is reasonable to specifically prohibit its use. In its preamble, EPA provides extensive discussion of the reasoning behind the dilution prohibition and the interpretation of the term dilution (Exhibit 1, page 40592). The MPCA agrees with EPA that dilution is not an acceptable method for treating hazardous waste and believes it is reasonable to impose restrictions on the use of dilution in regard to the standards established in the land disposal restrictions.

The prohibition of Minn. Rules pt. 7045.1305 corresponds to the dilution prohibition of 40 C.F.R. § 268.3.

S. Minn. Rules pt. 7045.1310 Treatment Surface Impoundment Exemption

Minn. Rules pt. 7045.1310 establishes the conditions under which restricted wastes may still be managed in a surface impoundment. Because a surface impoundment is considered to be a land disposal facility, restricted wastes may not be disposed of in a surface impoundment except when treated in accordance with the established treatment standards. However, under the specific circumstances identified in part 7045.1310, the land disposal restrictions are not applicable to surface impoundments. The conditions in the amendments for a treatment surface impoundment exemption are essentially the same as the conditions under 40 C.F.R. § 268.4. However, the amendments are more stringent than the federal regulations in regard to the acceptable design of the treatment impoundment.

40 C.F.R. § 268.4(a)(3) requires that the impoundment must meet the minimum technology facility standards of 40 C.F.R. §§ 264.221(c) or 265.221 unless it has received an exemption for alternate design, or the EPA Administrator has granted a waiver from the minimum technology facility standards. The referenced federal facility exemptions and waivers have never been adopted in Minnesota. Although these options for alternate operation and design of surface impoundments are available under the federal program, it is not reasonable to reference them in the land disposal restrictions because they are not available as options under the State facility standards. Therefore, the land disposal restrictions exemption for treatment surface impoundments is only available in Minnesota for those impoundments that meet the minimum technology standards. Also, it is necessary to provide a direct

reference to the federal regulations that establish the minimum technology standards because the State rules have not yet been amended to include the federal minimum technology standards.

T. Minn. Rules pt. 7045.1315 Waste Analysis for Restricted Wastes

Minn. Rules pt. 7045.1315 establishes specific requirements for the analysis of wastes restricted by the land disposal restrictions. Subpart 1 provides two routes for the generators of restricted wastes. If a generator determines that the waste being generated is restricted, but does not meet the treatment standards, the treatment facility receiving the waste must be given specific information regarding the waste. This is reasonable in order to insure adequate characterization of the waste before it is accepted for treatment.

If the generator determines that the waste is restricted but that it can be land disposed without further treatment, subpart 2 of the amendments specifies the information that must be submitted to the disposal facility at the time the waste is transported. The required information includes a characterization of the waste and also a certification statement to be signed by the generator. The generator must certify that the wastes meet the applicable land disposal restrictions treatment standard. It is reasonable to require this level of information from the generator because, at this point, the generator is solely responsible for the evaluation of the waste and is best able to characterize the waste. In order for the treatment facility to properly manage the waste received, it must be accurately characterized and its status under the land disposal restrictions properly defined.

Subpart 3 of the amendments requires that the facility owner or operator retain the information provided by the generator and also conduct any analyses necessary to determine that the wastes meet the applicable treatment standards. The frequency of the testing must be in accordance with the waste analysis plan required under Minn. Rules pts. 7045.0458 or 7045.0564. It is reasonable to require the facility to maintain evidence of the generator's statements regarding the specific wastes they have treated or disposed, in order to provide a basis for future investigations or verification of waste management. Because the activities at treatment and disposal facilities vary a great deal, the existing State rules allow the waste analysis plan to be developed on a site-specific basis. It is reasonable to provide this same level of flexibility in the type and frequency of waste analyses that are required for the land disposal restrictions so that the amendments provide an acceptable level of surveillance of a facility's operations without unreasonably restricting the activities conducted at the facility.

The waste analysis amendments correspond to 40 C.F.R. § 268.7.

U. Minn. Rules pt. 7045.1320 Waste Specific Prohibitions; Solvent Wastes

Minn. Rules pt. 7045.1320 identifies a specific category of wastes that are governed by the land disposal restrictions. These are the solvent wastes identified as hazardous waste numbers F001, F002, F003, F004 and F005. These solvent wastes are restricted from land disposal until they are treated to meet the established treatment standards. However, not all solvent wastes are restricted from land disposal. EPA has granted a two year extension to several types of solvent waste generators by providing exemptions in the land disposal restrictions. Solvent wastes from small quantity generators, CERCLA cleanups and very low concentration solvent wastes can be land disposed



without treatment until November 8, 1988. However, the regulations specify that these exempted solvent wastes may only be disposed at facilities that meet the minimum technology standards for facility design and operation.

The amendments establish the same conditions and exemptions as the federal requirements under 40 C.F.R. § 268.30. It is reasonable to provide the same exemptions as the federal regulations because EPA's decision to provide such exemptions was based on the determination that additional time is needed to provide sufficient national capacity for the treatment of these wastes. This determination of the national treatment capacity, and the additional burden that would be imposed by the requirement to treat the currently exempted wastes, was made by EPA after extensive research into the solvent waste management industry (Exhibit 1). Because most of Minnesota's waste is disposed outside of the State, it is reasonable to acknowledge the concerns identified by EPA and regulate the same universe of solvent wastes in a consistent manner.

V. Minn. Rules pt. 7045.1325 Waste Specific Prohibition; Dioxin Containing Wastes

Minn. Rules pt. 7045.1325 establishes specific prohibitions on the disposal of dioxin containing wastes. The amendments address dioxin containing wastes identified by hazardous waste numbers F020, F021, F022, F023, F026, F027 and F028. The prohibition on dioxin wastes is similar to the prohibition on specific solvent wastes as discussed in section U of this Statement of Need and Reasonableness. EPA has granted a modified two year extension on the dioxin waste prohibition. Until November 8, 1988, the federal regulations allow the land disposal of untreated dioxin wastes but require

that dioxin wastes must be disposed at a facility that meets the minimum technology standards for facility design and operation. Again, EPA's decision to grant the two year extension for dioxin wastes was based on an evaluation of the national treatment capacity for dioxin waste. As discussed in section U of this Statement of Need and Reasonableness, the MPCA believes that limitations on the national capacity is a valid constraint on waste treatment and therefore agrees that it is reasonable to provide the same extension in the amendments.

The requirements of the dioxin prohibitions correspond to the federal requirements under 40 C.F.R. § 268.31.

W. Minn. Rules pt. 7045.1330 Waste Specific Prohibitions; California List Wastes

Minn. Rules pt. 7045.1330 identifies several wastes that are prohibited from land disposal. These wastes are part of a group of wastes identified as "California List" wastes. The California List is a list of wastes, originally identified by the State of California as requiring special treatment prior to disposal. Congress mandated in HSWA that the California list wastes must be included in the land disposal restrictions by July 8, 1987. The California List includes a number of metals, cyanide wastes, low pH wastes, PCB's and waste containing halogenated organic compounds (HOC's).

When EPA published the California List land disposal restrictions on July 8, 1988 (Exhibit 2) it did not establish treatment standards for all of the California List wastes. EPA intends to address treatment standards for metals and free cyanides in a separate rulemaking and has allowed the

statutory prohibition on these wastes to become effective. As of July 8, 1987, these wastes have been banned from land disposal by HSWA, and no State rules are needed to implement this Congressional prohibition.

However, for the remaining California List wastes, EPA has promulgated standards to allow their continued land disposal, provided they are treated to meet the established standards. The amendments address all of the wastes restricted by the federal regulations under 40 C.F.R. § 268.32. The wastes that are restricted are acidic wastes with a pH of less than or equal to 2.0, PCB wastes at concentrations greater than or equal to 50 parts per million (ppm) and liquid wastes that contain HOC's at concentrations between 1,000 milligrams per liter (mg/l) and 10,000 mg/l.

However, as discussed previously, EPA recognized that treatment capacity is limited for certain wastes and provided a number of extensions to the applicable compliance dates. CERCLA wastes may be land disposed until November 8, 1988, and certain HOC wastes are allowed to be land disposed until July 8, 1989. The HOC wastes that are exempted until July 8, 1989, must be either liquid wastes that are not primarily water but contain more than 1,000 mg/l HOC's, or non-liquid wastes containing more than 1,000 mg/kg. As discussed in section U of this Statement of Need and Reasonableness, the extension provided for these wastes only applies if the wastes are disposed at facilities that meet minimum technology standards for design and operation.

It is reasonable to regulate the same universe of waste as the federal regulations to provide consistency with the federal program and to accommodate concerns regarding the treatment capacity available to generators of restricted wastes.

Subpart 3 of the amendments provides specific waste analysis requirements applicable to generators of restricted California List wastes. The analysis requirements determine whether or not the waste is a liquid, the pH of the waste and the concentrations of PCB's or HOC's in the waste. The requirements relate to specific management considerations of the California List wastes. It is reasonable to require the specific analyses to characterize special aspects of these wastes in addition to the characterization required in Minn. Rules pt. 7045.1315. The analyses required are the same as the federal requirements under 40 C.F.R. § 268.32(i) and (j).

X. Minn. Rules pts. 7045.1350, 7045.1355 and 7045.1360 Treatment Standards Expressed as Concentrations in Waste Extract or as Specific Technologies

Minn. Rules pts. 7045.1350, 7045.1355 and 7045.1360 establish the treatment standards that are applicable to the wastes identified in the waste specific prohibitions provided in the amendments to Minn. Rules pts. 7045.1320, 7045.1325 and 7045.1330. For each waste identified in the waste specific prohibitions, a treatment standard has been provided. Minn. Rules pt. 7045.1350 summarizes the basic concept of the treatment standards. This part identifies the two routes for meeting the criteria of "treatment," either by: (1) meeting a concentration standard; or (2) meeting a technology based standard. All of the criteria in the amendments establishing treatment standards are the same as the federal criteria provided under 40 C.F.R. §§ 268.40, 268.41 and 268.42.

In developing the treatment standards expressed as concentrations in waste extract, EPA conducted extensive research aimed at determining the best demonstrated available technology (BDAT) for the treatment of the waste. The determination of BDAT is an ongoing process that will be continually expanded and revised as waste treatment technology develops. The development of the BDAT presented in the amendments is extensively discussed in the preambles to the land disposal restrictions (Exhibits 1 and 2). MPCA is relying on the data and views presented by EPA in the preambles to provide the technical basis of the treatment standards in the amendments. After determining the BDAT, EPA was able to establish a concentration limit that could be applied to the waste in question.

For example, EPA considered a number of technologies for treating solvent waste so that the level of risk is reduced when it is disposed. Solvent wastes can be treated by a number of technologies but the technologies that provide the highest level of treatment are steam stripping, activated carbon treatment or biological treatment. Therefore, EPA has set the treatment standard for solvent wastes at the concentration level that can be achieved by use of these technologies. If a generator can use a different treatment method that will still achieve the treatment standard, that will be an acceptable treatment. Minn. Rules pt. 7045.1355, subpart 3 provides a list of the concentrations in waste extract for each restricted waste. When a waste has been treated to the extent that an extract of the waste will meet those concentration limits, it may be land disposed.

The second route for treating restricted wastes is provided in Minn. Rules pt. 7045.1360. For certain wastes the treatment standard is not given as a concentration limit. Instead, a specific technology is required and only that technology can insure compliance with the standard. Generators of PCB wastes and HOC wastes must meet the established technology-based standard. Treatment by other methods that would still achieve a very low concentration is not allowed for these wastes. Again, EPA has conducted extensive research to determine the best management of these wastes. Incineration has been identified as the BDAT for PCB wastes and HOC wastes. The reasonableness of selecting incineration as the required treatment method is extensively discussed in the preamble to the federal regulations as proposed (Exhibit 4, pages 44725-44727).

The MPCA agrees with the EPA's decision requiring incineration as the BDAT for these wastes. It is reasonable to provide the same treatment standards as the federal regulations because of the nature of the waste treatment industry. Wastes from Minnesota are generally transported to other states for treatment and disposal. Where such interstate transportation occurs, it is essential that states rules provide consistency with the federal regulations and not impose conditions unique to each state. The same universe of wastes must be regulated and held to the same standards in each state.

Y. Minn. Rules pt. 7045.1380 Prohibition on Storage of Restricted Wastes

Minn. Rules pt. 7045.1380 establishes the conditions for the storage of restricted wastes. In developing the land disposal restrictions, EPA recognized that the requirement to treat wastes prior to disposal would increase the expense of disposal as a waste management option. The increased

expense would prompt generators to consider long-term storage as an alternative to treatment and disposal. Because of the environmental concerns associated with the storage of hazardous waste in containers or tanks, EPA has prohibited the storage of restricted waste except under certain conditions. In general, storage is only allowed in tanks or containers in order to accumulate sufficient waste to conduct treatment activities.

The containers or tanks must be marked to identify their contents and to indicate the date each period of accumulation begins. Also, compliance with the accumulation requirements of Minn. Rules pt. 7045.2929 is required. These requirements include protection from unauthorized access, shading ignitable wastes and curbed container storage areas.

The requirements imposed by the amendments are the same as the conditions for storage imposed under 40 C.F.R. § 268.50. These conditions represent reasonable limitations on storage in order to facilitate the implementation of the treatment requirements of the land disposal restrictions.

#### IV. SMALL BUSINESS CONSIDERATIONS IN RULEMAKING

Minn. Stat. § 14.115, subd. 2 (1986) requires the MPCA, when proposing amendments to existing rules which may affect small businesses, to consider the impact of the rule amendment on small business. The objective of Minn. Stat. ch. 116 (1986) is to protect the public health and welfare and the environment from the adverse effects which will result when hazardous waste is mismanaged. Application of less stringent standards to the hazardous wastes generated or managed by small businesses would be contrary to the MPCA's mandate since small businesses' hazardous wastes can cause the same environmental harm as that of larger businesses. Some additional expenses

will be incurred as a result of the amendments due to changes in management requirements though these costs are difficult for the MPCA to quantify in the abstract. However, the requirements are justified under the circumstances.

Because the amendments are based on federal regulations promulgated under HSWA that are already in effect in Minnesota, incorporation of these provisions into the State rules will not impose any additional requirements on small businesses that are not currently being imposed by the federal regulations in effect in Minnesota and elsewhere in the nation.

#### V. CONSIDERATION OF ECONOMIC FACTORS

In exercising its powers, the MPCA is required by Min. Stat. § 116.07, subd. 6 (1986) to give due consideration to economic factors. The statute provides:

In exercising all its powers the Pollution Control Agency shall given 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 which may result therefrom, and shall take or provide for such action as may be reasonable, feasible, and practical under the circumstances.

The MPCA has given due consideration to all available information on the economic impacts of the proposed amendments. The amendments will have some economic impact for generators of hazardous waste. The amendments affect generators of hazardous waste by requiring more extensive waste analysis, notification, and reporting requirements. The MPCA does not believe the administrative effects will be substantial.



The amendments establish much more extensive treatment requirements that may significantly increase the cost of hazardous waste management. The actual increase in cost will depend on the type of waste being treated and the way the waste currently is being managed. For generators of PCB wastes the requirements to incinerate their waste will not necessarily increase their costs because, in most cases, PCB waste is currently being incinerated. Generators of solvent wastes may only incur significant expenses if they must modify their waste management practices in order to meet the very stringent concentration limits established in the amendments. However, all of the amendments are based on federal regulations promulgated under HSWA which are already in effect in Minnesota. Incorporation of these provisions into the State rules will not impose any additional requirements on the generators of hazardous waste that are not currently imposed by the federal regulations in effect in Minnesota.

#### VI. CONCLUSION

The MPCA 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 MPCA'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:

<u>Agency Ex. No.</u>	<u>Title</u>
1	<u>Federal Register, Vol. 51, No. 216, pages 40572-40654, November 7, 1986.</u>
2	<u>Federal Register, Vol. 52, No. 130, pages 25760-25792, July 8, 1987.</u>
3	<u>Federal Register, Vol. 52, No. 107, pages 21010-21018, June 4, 1987.</u>
4	<u>Federal Register, Vol. 51, No. 238, pages 44714-44740, December 11, 1986.</u>
5	<u>Federal Register, Vol. 51, No. 9, pages 1602-1766, January 14, 1986.</u>

Date: May 13, 1988

*for Barbara Lindsay Sims*  
GERALD L. WILLET  
Commissioner