

STATE OF MINNESOTA  
POLLUTION CONTROL AGENCY

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

STATEMENT OF NEED  
AND REASONABLENESS

I. INTRODUCTION

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

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

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

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

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

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

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

### A. Need for Consistency with Federal Regulations

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

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

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

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

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

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

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

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

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

B. Need to Ensure an Adequate Level of Protection

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

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

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

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

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

A. Minn. Rules Pt. 7045.0127, Subp. 2

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

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

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

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

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

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

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

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

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

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

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

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

C. Minn. Rules Pt. 7045.0139

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

D. Minn. Rules Pt. 7045.0141

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

N. Minn. Rules Pt. 7001.0560

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

O. Minn. Rules Pt. 7001.0580, Item B

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

P. Minn. Rules Pt. 7001.0590 Item K

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

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

The Agency's justification of the reasonableness of these amendments is the same as previously discussed in section III.0. of this document.

Q. Minn. Rules Pt. 7001.0600, Item L

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

The Agency's justification of the reasonableness of these amendments is the same as previously discussed in section III.0. of this document.

R. Minn. Rules Pt. 7001.0610, Item I

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

The Agency's justification of the reasonableness of these amendments is the same as previously discussed in section III.0. of this document.

S. Minn. Rules Pt. 7001.0620, Item J

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

The Agency's justification of the reasonableness of these amendments is the same as previously discussed in section III.0. of this document.

#### IV. CONSIDERATION OF SMALL BUSINESS

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

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

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

#### V. CONCLUSION

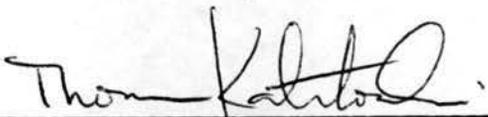
The Agency has, in this document and its exhibits, made its presentation of facts establishing the need for and reasonableness of the proposed amendments to Minnesota's hazardous waste rules. This document constitutes the Agency's statement of need and reasonableness for the proposed amendments to the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

VI. LIST OF EXHIBITS

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

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

Dated: July **23**, 1985

  
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Thomas J. Kalitowski  
Executive Director