

Minnesota Attorney General: Administrative Rules Proceedings

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STATE OF MINNESOTA
MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste and Polychlorinated Biphenyls, Minn. Rules Pts. 7001.0700, 7045.0020, 7045.0120, 7045.0135, 7045.0139, 7045.0141, 7045.0213, 7045.0484, 7045.0488, 7045.0528, 7045.0596, 7045.0600, 7045.0628, 7045.0629, 7100.0335, 7100.0340, 7100.0350, and 7100.0360

STATEMENT OF NEED AND REASONABLENESS

I. INTRODUCTION

The subject of this proceeding is the amendment of the rules of the Minnesota Pollution Control Agency (hereinafter "Agency") governing the management of hazardous waste and the management of polychlorinated biphenyls (hereinafter "PCB"). Specifically, the amendments the Agency is proposing pertain to the following:

A. Technical corrections to the existing hazardous waste tank standards. These amendments serve to clarify the applicability and scope of several of the existing tank standards.

B. Removal of iron dextran from the lists of hazardous wastes. This delisting serves to correct and clarify the lists of hazardous wastes by removing a compound which the U.S. Environmental Protection Agency (hereinafter EPA) has determined poses no threat to human health or the environment.

C. Removal of strontium sulfide from the lists of hazardous wastes. This delisting serves to correct and clarify the lists of hazardous wastes by removing a compound which EPA has found no substantive evidence to support listing.

D. Reinstating certain metal smelting wastes to the lists of hazardous

Exhibit No. 7

wastes. This relisting is a court ordered reinstatement of these wastes which were deleted in a prior amendment.

E. Clarification of statistical methods for ground water monitoring data. These amendments serve to provide and clarify statistical methods and procedures more appropriate to determining ground water quality.

F. Technical corrections to farmers' exemptions. These amendments serve to correct cites in the federal rules (already in place in existing Minnesota rules) and to extend the farmers' exemptions to include rules governing land disposal restrictions.

G. Clarification of trial burn information requirements for the modification of existing hazardous waste thermal treatment unit permits. The amendments serve to clarify the time frame for submittal of trial burn results when modifying an existing hazardous waste thermal treatment unit permit.

H. Revision of the Certificate of Exemption (hereinafter "COE") program governing PCBs. These amendments provide a process whereby persons may, under certain circumstances, qualify for a COE by rule in lieu of applying for a written COE from the Agency.

The above set of amendments generally corrects, simplifies, and/or clarifies existing state rules. All but item H above are based on federally promulgated amendments. Of these EPA amendments, only item F was promulgated under authority of the Hazardous and Solid Waste Amendments of 1984 (HSWA); the others were promulgated under the authority of the Resource Conservation and Recovery Act of 1980 (RCRA). By federal law, amendments promulgated under RCRA are not in effect in Minnesota until state rules are amended to include them. Amendments promulgated under HSWA are immediately effective in Minnesota. The Agency is proposing the rule amendments pertaining to the state COE program governing PCBs as a result of changes in the relationship between the state and

federal programs governing PCBs. Authority to adopt these amendments is provided under Minn. Stat. §§ 116.37, subp. 4 (for item H) and 116.07 (for the balance of the amendments).

This Statement of Need and Reasonableness is divided into seven parts. Following this introduction, Part II contains the Agency's explanation of the need for the proposed amendments. Part III discusses the reasonableness of the proposed amendments. Part IV documents how the Agency has considered the methods of reducing the impact of the proposed amendments on small businesses as required by Minn. Stat. § 14.115 (1988). Part V discusses the economic factors the Agency considered in drafting the amendments as required by Minn. Stat. § 116.07, subd. 6 (1988). Part VI sets forth the Agency's conclusion regarding the amendments. Part VII contains a list of exhibits relied on by the Agency to support the proposed amendments. The exhibits are available for review at the Agency's offices at 520 Lafayette Road North, St. Paul, Minnesota 55155.

II. NEED FOR THE PROPOSED AMENDMENTS

Minn. Stat. ch. 14 (1988) requires the proposing agency to make an affirmative presentation of facts establishing the need for and reasonableness of the rules or amendments it proposes. 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 lend itself to evaluation of each proposed revision. The need for the federal amendments and for the amendments governing COEs is discussed in items A and B below.

A. Need for Rule Amendments Governing Hazardous Waste Management.

In the broad sense, the need to amend the Agency's rules governing the management of hazardous waste has three bases: (1) the need for consistency with the federal hazardous waste regulations, (2) the need to provide clarity of scope and applicability in existing rule language, and (3) the need to correct existing rules.

1. Need for consistency with federal regulations. In 1976, Congress adopted RCRA (42 U.S.C. § 6901 et seq.) to regulate the management of hazardous waste. In adopting RCRA, Congress provided for eventual state control of the hazardous waste program and set up the mechanism for the EPA to grant authority to states to operate the program. In states that receive this 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. The EPA also expresses its desire that authorized states provide rules consistent with federal regulations when practicable because this provides consistency with other authorized state programs. EPA has defined equivalent to mean that the state requirements are at least as stringent as the federal requirements. In terms of consistency, EPA's goal is to achieve an integrated national program which requires that final state programs do not conflict with each other or with the federal program.

Minnesota received final authorization from EPA for its hazardous waste program pursuant to RCRA on February 11, 1985. See Volume 50 Federal Register page 3756 (50 FR 3756) published on January 28, 1985. A state with final authorization administers its hazardous waste program in lieu of the EPA program for those regulations which were promulgated pursuant to RCRA as adopted in 1976 and as amended in 1980. In order to maintain authorization, the state must enact equivalent requirements within specific time frames when

new, more stringent federal requirements are promulgated by EPA. As discussed previously, federal regulations promulgated under RCRA are not in effect in Minnesota until the state rules are amended to incorporate the federal changes.

EPA's removal of iron dextran and strontium sulfide from the lists of hazardous wastes represents a less stringent level of regulation than if these wastes had remained listed. States are not required to adopt RCRA program rules which provide a less stringent level of regulation. However, the Agency believes that it is beneficial to provide consistency between the state rules and the regulations of EPA and other authorized states when possible, and that there are substantive reasons for the delistings. Therefore, the Agency proposes adopting these delistings.

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 the requirements of the federal hazardous waste program as well as programs in authorized states. 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 or the environment, the amendment of Minnesota's hazardous waste rules to incorporate EPA's amendments is often desirable even where adoption is optional.

2. Need to provide clarity to the scope and applicability of existing rule language. Rules are established with the intent of specifying, to the extent possible, the complete scope and applicability of the rules established. Sometimes rule provisions are established to apply to such a broad range of persons, items, or management practices that it is virtually impossible to state specifically each person, item, or management practice included in the

scope and applicability of rule provisions. In this event, the scope and applicability are established in a broad general sense to cover classes or categories of persons, items, or management practices affected.

Under the circumstances provided above, questions are often generated by persons interpreting the rules regarding applicability of the rules. Therefore, to the extent it can be accomplished, it is desirable to amend the hazardous waste rules to clarify the scope and applicability of specific requirements whenever possible. Certain of the proposed amendments are needed to clarify the scope and applicability of specific requirements in the rules.

3. The need to improve existing rules through corrective amendments. New information or technology may become available that is not specifically provided for in a particular rule. There may be inadvertent errors in rule provisions. It is necessary to correct these deficiencies and errors in order to clarify or more appropriately address issues governed by the rules.

B. Need for Rule Amendments Governing the COE Program for PCBs.

The need to amend the Agency's rules governing COEs is based on the need to provide simpler procedures for regulating PCBs and to correct problems associated with the regulated community's need to comply with two separate but duplicative regulatory programs governing PCBs.

The regulation of PCBs began on the federal level in 1976 when Congress passed the Toxic Substances Control Act (TSCA). In 1977, under the authority of TSCA, EPA promulgated its first set of PCB regulations governing the marking and disposal of PCBs. Since that time, EPA has amended the federal PCB regulations several times. The federal regulations now provide for a comprehensive program governing the requirements for, and the prohibitions, manufacture, processing, distribution in commerce, use, disposal, storage, and

marking of PCBs and PCB items (40 CFR, Part 761).

When the federal program was first established in 1977, there was uncertainty surrounding the eventual scope of the federal PCB program and the extent to which EPA would enforce the federal PCB regulations in the states. Because of this uncertainty, Minnesota established laws in 1977 to regulate PCBs at the state level. These laws banned in-use PCB equipment unless exempted from that ban by a COE issued by the Agency (Minn. Stat. §§ 116.36 and 116.37).

The Agency promulgated rules to administer the COE program for PCBs in 1977 (See Minn. Rules pts. 7100.0300 to 7100.0600). Under the existing state rules, no person may use, possess, sell, purchase, or manufacture PCB, a product containing PCB, or a class of products containing PCB without obtaining a COE from the Agency. The rules provide the procedures for applying for and obtaining a COE from the Agency and the terms and conditions to be included in a COE. In a general sense, the COE program approves the continued use of PCB under certain conditions. These conditions include secondary containment around PCB transformers, removal of units posing a significant risk, and repair of leakages in a timely manner. Also, spills are to be reported to the Agency and spill cleanup is to be conducted under Agency guidance. Annual reports summarizing PCB activities are also submitted to the Agency. At this time, about 600 COEs have been issued by the Agency. Of these 600, about 225 remain in effect. The remaining COE holders have disposed of all PCBs and have had their COEs terminated.

The state hazardous waste rules also regulate "waste" PCBs (Minn. Rules pt. 7045.0135, subp. 5). These rules regulate as hazardous waste the storage and disposal of discarded PCB materials and items if the concentration of PCBs in the waste is greater than 50 parts per million.

After 1984, EPA enforcement actions under TSCA began with the assessment of fines and corrective action activities for the mismanagement of PCBs. Minnesota's regulated community has been affected by these federal enforcement actions in every year since 1984. Also, EPA enforcement efforts under TSCA have received consistent support in Congress, including increased funding for EPA to contract with states for compliance monitoring activities. These contracts provide for compliance monitoring inspections by state personnel but retain enforcement action authority at the federal level. The Agency has received funds from EPA for PCB compliance monitoring activities since October 1988. These funds have allowed the Agency to significantly increase the number of inspections for problem industries and remote areas of the state. The ultimate result of this increase in federal enforcement action and federal funds for state compliance monitoring is a significant increase in compliance with PCB regulations by the regulated community.

The Agency believes it was appropriate to establish a state COE program for PCBs in 1977 because of the uncertainty associated with the federal PCB program at that time. However, since that time, the federal government has significantly expanded both its PCB regulations and the enforcement of those regulations. This expansion has essentially resolved any uncertainty associated with the federal program. The federal government now provides a comprehensive program governing PCBs and PCB items.

The federal and state PCB programs now provide essentially duplicative rule requirements. Having two separate PCB programs has created problems for the regulated community. First, the COE program has confused the regulated community, which errantly perceives the state COE program to be an authorized TSCA compliance program. Second, while the state and federal programs are essentially duplicative, there are some subtle differences in the requirements,

such as the particular wording to be used for marking and labeling PCBs and PCB items. While the agency does not believe these subtle differences reflect any difference in the level of protection of human health and the environment, the regulated community has been burdened by the need to comply with both sets of requirements.

In the interest of simplifying procedures (while retaining equal protection of human health and the environment) the Agency believes there is a need to amend the state rules governing COEs for PCBs.

III. REASONABLENESS OF THE PROPOSED AMENDMENTS

The Agency is required by Minn. Stat. ch. 14 (1988) to make an affirmative presentation of facts establishing the reasonableness of the proposed rules or amendments.

Items A to G in the introduction are federal amendments to existing rules. These EPA promulgated corrections, improvements, and clarifications to the hazardous waste rules are being adopted into existing Minnesota rule counterparts. A complete discussion of the reasonableness of the federal amendments is presented in Exhibits 1 to 7 (corresponding to items A to G, respectively) in Part VII of this document, which are hereby incorporated by reference. Each of these seven federal amendments and the affected rules is discussed below. Discussion of the reasonableness of state initiated amendments governing COEs is provided in item H.

A. Clarification of Tank Standards.

The proposed tank standard amendments involve Minn. Rules pts. 7045.0020, 7045.0488, 7045.0528, 7045.0596, 7045.0600, 7045.0628, and 7045.0629. On July 14, 1986, EPA issued regulations governing the treatment or storage of hazardous waste in tanks. The state hazardous waste rules were amended in August 1988 to incorporate these federal tank standards. On

September 2, 1988, EPA issued several minor clarifications to the language of the tank standards. The Agency is proposing to adopt these federal clarifications without substantive change based on EPA's data and discussion supporting reasonableness as provided in Exhibit 1. These amendments are detailed below:

1. Minn. Rules pt. 7045.0020 provides definitions for certain words used in the hazardous waste rules. Subparts 21 and 103 provide definitions for the terms "elementary neutralization unit" and "wastewater treatment unit," respectively. The existing definitions for these two terms provide that these two types of units include devices which meet the definition of a tank. The Agency is proposing to amend the definitions for these two terms to clarify that "elementary neutralization units" and "wastewater treatment units" include devices which meet the definition of a "tank system" as well. The effect of the proposed amendment is to clarify that the terms "elementary neutralization units" and "wastewater treatment units" include an entire tank system (i.e., the tank and its connected piping) and not just a tank itself. This proposed amendment reasonably clarifies the original intent of the definitions for these terms. The proposed amendment is equivalent to 40 Code of Federal Regulations (CFR) Part 260.10.

2. Minn. Rules pts. 7045.0488 and 7045.0596 set out activities to be conducted by an owner or operator during closure of a hazardous waste management unit or facility. Minn. Rules pt. 7045.0488 applies to facilities for which a final permit has been issued and Minn. Rules pt. 7045.0596 applies to facilities with interim status. Specifically, subpart 3 of these parts requires that at closing all contaminated facility equipment, structures, and soils at facilities must be decontaminated or properly disposed of unless otherwise specified in the technical standards specific to the type of

management unit being closed.

The Agency proposes to amend Subpart 3 of these parts to provide a reference to the technical standards specific to tanks. The effect of the proposed amendment is to require tank owners or operators who close their tanks to decontaminate or properly dispose of all contaminated facility equipment, structures, and soils unless otherwise specified in the technical tank standards. In this manner, the closure of hazardous waste tanks will be regulated in the same manner as the closure of other hazardous waste management units.

The proposed amendment is reasonable because it provides that the closure of hazardous waste tanks will be regulated in the same manner as the closure of all other hazardous waste management units, which was the original intent of the requirement. The proposed amendment is equivalent to 40 CFR Parts 264.114 and 265.114.

3. Minn. Rules pts. 7045.0528 and 7045.0628 set out the technical standards for hazardous waste tanks. Minn. Rules pt. 7045.0528 applies to tanks for which a final permit has been issued and Minn. Rules pt. 7045.0628 applies to facilities with interim status.

Subpart 1 of each of these parts describes who must comply with the tank standards and also the specific tanks that are exempt from meeting the tank requirements. The Agency is proposing to amend the exemption portion of subpart 1 to change the term "tank" to "tank system." It is reasonable to clarify that the exemptions apply to the entire tank system and not just to the tank itself. These proposed amendments are reasonable because they clarify the intent regarding the applicability of the exemption.

Subpart 4 of each of these parts sets out the requirements for the detection and containment of releases from tanks. The detection and

containment requirements are set out in items A to H of this subpart. Item H requires tanks that have ancillary equipment to have secondary containment for that ancillary equipment. The rule provides several exclusions from this requirement. One of the exclusions is sealless or magnetic coupling pumps that are visually inspected for leaks on a daily basis. The Agency is proposing to amend this exclusion to include "sealless valves" if they are visually inspected for leaks on a daily basis. The Agency believes it is reasonable to include sealless valves in the exclusion because the threat to human and health and the environment posed by sealless valves is no different from that posed by sealless coupling pumps which are currently excluded. The proposed amendments to Minn. Rules pts. 7045.0528 and 7045.0628 are equivalent to 40 CFR Parts 264.190 and 265.190.

4. Minn. Rules pt. 7045.0600 sets out requirements for the submittal of post closure plans and the modification of the post-closure period for a facility. Subpart 1 describes who shall comply with these post closure requirements. The scope provides that the post-closure requirements apply to owners or operators of all hazardous waste disposal facilities including tank systems that are required to meet the landfill requirements. The Agency is proposing to amend subpart 1 to clarify that the scope of the requirement includes surface impoundments and waste piles from which the owner or operator intends to remove the wastes at closure, to the extent post-closure care is required in the technical standards for surface impoundments and waste piles. The technical standards for surface impoundments and waste piles requires post-closure care only if all waste is not removed or decontaminated from a surface impoundment or waste pile. While the owner or operator may intend to remove or decontaminate all of the waste from the unit at closure, there is still the chance that the owner or operator may not remove or decontaminate all

the waste. Therefore, it is reasonable to require a post-closure plan from owners or operators of these units so that they may appropriately plan in the event waste is left or not decontaminated at closure. The proposed amendment is equivalent to 40 CFR Part 265.110.

B. Removal of Iron Dextran from the Lists of Hazardous Wastes.

This delisting affects Minn. Rules pt. 7045.0135, subp. 4, item F, subitem (9), unit (c) and part 7045.0141, subp. 10, item B. The EPA first considered delisting iron dextran in response to an August 9, 1983, petition. The delisting was proposed on November 8, 1985. The rule was published as final in 53 FR 43878 (October 31, 1988). The EPA originally listed iron dextran as a potential carcinogenic agent based on subcutaneous or intramuscular injections of laboratory animals. Further research proved to EPA's satisfaction that, due to iron dextran's large molecular weight, it will not absorb across membrane barriers. Therefore, EPA considers iron dextran impossible to absorb through oral, dermal, or inhalation routes. As a result, EPA concludes that iron dextran, when discarded, does not pose a significant threat to human health or the environment. The Agency is proposing to adopt this federal delisting without substantive change based on EPA's data and discussion supporting the reasonableness as provided in Exhibit 2. These amendments are detailed below:

1. Minn. Rules pt. 7045.0135 provides lists of hazardous wastes. Subpart 4, item F, subitem (9) lists hazardous wastes derived from commercial chemical products which begin with the letter I. Iron dextran is listed as unit (c). In this rulemaking, unit (c) is stricken from the rule and the three subsequent units in the subitem are relabeled.

2. Minn. Rules pt. 7045.0141 lists hazardous constituents. Subpart 10 lists hazardous constituents which begin with the letter I. Iron

dextran, listed as item B, is stricken and the three subsequent items are relabeled.

C. Removal of Strontium Sulfide from the Lists of Hazardous Wastes.

This delisting affects Minn. Rules pt. 7045.0135, subp. 4, item E, subitem (13), units (h) and (i), and part 7045.0141, subp. 18, item O. The EPA first considered delisting strontium sulfide in response to a February 5, 1981, petition. EPA proposed the delisting on August 26, 1983. The rule was published as final in 53 FR 43882 (October 31, 1988). The EPA originally listed strontium sulfide based on the listing criteria in 40 CFR Part 261.11(a)(2) and its reported oral (human) lowest lethal dose (LDL-0) of 50 mg/kg. The original report from which this was derived gave a range of 50-500 mg/kg for a "Probable Oral Lethal Dose (Human)." EPA used the lowest value of this range (50 mg/kg) in spite of a footnote in the report which stated that the toxicity value was based on "obviously inadequate data" and that it could "represent no more than guesses."

A more recent supplement to the report no longer lists the LDL-0 value for strontium sulfide because of the lack of reliable data on its toxicity. EPA has searched and has been unable to find current reliable data on acute or chronic toxicity of strontium sulfide. Therefore, EPA has concluded that there is insufficient evidence to support the continued listing of this compound as either an acute hazardous waste or as a toxic waste. The Agency is hereby proposing to adopt this federal delisting without substantive change based on EPA's data and discussion supporting reasonableness as provided in Exhibit 3. These amendments are detailed below:

1. Minn. Rules pt. 7045.0135 provides lists of hazardous wastes. Subpart 4, item E, subitem (13) lists hazardous wastes derived from commercial chemical products which begin with the letter S. Listings for "strontium

sulfide" and "strontium sulfide SrS" are units (h) and (i), respectively. In this rulemaking, units (h) and (i) are stricken from the rule and the four subsequent units in the subitem are relabeled.

2. Minn. Rules pt. 7045.0141 lists hazardous constituents. Subpart 18 lists those constituents beginning with the letter S. Strontium sulfide, listed as item 0, is stricken and the two subsequent items are relabeled.

D. Relisting of Certain Metal Smelting Wastes.

This relisting affects Minn. Rules pts. 7045.0135, subp. 3, items I to M; 7045.0139, subp. 2, item B, subitems (55), (56), (57), (66), (67), and (68); and 7045.0120, item I, subitems (1) to (6). EPA listed as hazardous certain wastes associated with primary metal smelting on May 19, 1980 and July 16, 1980. These wastes were then delisted following enactment of provisions of the amendments governing "high volume, low hazard" wastes from the "extraction, beneficiation, and processing of ores and minerals" (Bevill amendments) on November 19, 1980, January 16, 1981, and May 20, 1981. In the most recent amendment, issued as a final rule September 13, 1988 (53 FR 35412), EPA relists six of these metal smelting wastes as hazardous wastes. The relisting relies on the original reasons set forth in the May 19, and July 16, 1980 listings. The relisting is the result of a court challenge to the delistings associated with the Bevill amendments from which the U.S. Court of Appeals for the District of Columbia Circuit directed EPA to relist these wastes. The Agency is hereby proposing to adopt this federal relisting without substantive change based on EPA's data and discussion supporting reasonableness as provided in Exhibit 4. These are discussed below:

1. Minn. Rules pt. 7045.0135 provides lists of hazardous wastes. Subpart 3 lists hazardous wastes from specific sources. This rulemaking

relists these wastes as items I to M (namely: primary copper, primary lead, primary zinc, primary aluminum, and two primary ferroalloys, respectively). The four subsequent items are also relabeled.

2. Minn. Rules pt. 7045.0139 provides the basis for listing hazardous wastes. Subpart 2, item B, lists constituents of wastes identified in part 7045.0135, subp. 3. This rulemaking relists these six smelting wastes in order of their EPA hazardous waste numbers in subitems (55), (56), (57), (66), (67), and (68). The subsequent items are also relabeled to end with item (95).

3. Minn. Rules pt. 7045.0120 lists exempt wastes. Item I governs mining wastes. The rulemaking adds a new list of subitems (1) to (6). These subitems clarify that, for purposes of exemption, mining waste does not include these six relisted wastes.

E. Clarification of Statistical Methods for Ground Water Monitoring Data.

These amendments affect the following Minn. Rules: pt. 7045.0020, subparts 15a and 22a; pt. 7045.0484, subp. 3; subp. 11, items A, G, H, I, and J; subp. 12, items C, D, F, G, H, I, J, and K; and subp. 13, items C, D, F, G, H, I, J, K, and L. EPA rules require ground water monitoring at hazardous waste land disposal facilities. These rules specify the use of Cochran's Approximation to the Behrens-Fisher Student's t-test (CABF) or other approved statistical method. Due to problems associated with the CABF method for ground water analyses, the EPA proposed amendments to these rules on August 24, 1987 (52 FR 31948), which were issued as final on October 11, 1988 (53 FR 39720). This set of amendments provides five different statistical methods that are more appropriate to analyses of ground water. It also outlines sampling procedures and performance standards designed to reduce the possibility that a statistical method will indicate contamination when it is not present, or fail to detect contamination when it is present. The Agency proposes adopting this

set of federal amendments without substantive change based on EPA's data and discussion supporting reasonableness as provided in Exhibit 5. This set of amendments is discussed below:

1. Part 7045.0020 provides definitions. The definitions for the terms "detected" and "exceeded" are inserted as new subparts 15a and 22a, respectively, in this rulemaking.

2. Part 7045.0484 contains ground water protection provisions. Subpart 3, governing ground water protection standards, is modified by replacing the term "entering" with the phrase "detected in" in existing text.

3. Part 7045.0484, subp. 11 provides general ground water monitoring requirements. Item A of subpart 11 is modified by inserting federal amendment language which provides alternatives to the use of upgradient wells for establishing background ground water quality. Subsequent subitems are relabeled. Item G, subitem (4), which had contained this provision, is also removed in conjunction with this amendment.

4. Part 7045.0484, subp. 11 also contains the following topics which are affected by the amendments: item G governs ground water monitoring procedures, item H provides statistical methods for ground water evaluation, item I provides performance standards for the above statistical methods, and item J governs recording and submittal of data. These items are interrelated and this rulemaking replaces the text in each of these items with the language provided in the federal amendment. The federal language provides five new statistical methods deemed more appropriate for ground water analyses. It also provides updated and appropriate statistical terminology.

5. Part 7045.0484, subp. 12 governs detection monitoring programs. In amendments affecting this subpart, existing items F, I, J, and K are removed. Other existing items are revised as follows: item C is revised to govern the

development of background data for hazardous constituents, item D is revised to govern the frequency of collecting samples and conducting analyses, item G is redesignated as item F and revised to govern the determination of whether there is statistically significant evidence of contamination, and item H is redesignated as item G and is revised to provide procedures in the event there is evidence of contamination. These items are interrelated and this rulemaking replaces the text in each of these existing items with the corresponding language provided in the federal amendment.

6. Part 7045.0484, subp. 13 provides for a compliance monitoring program. In amendments affecting this subpart, first, existing items G and K are removed. Next, existing items are revised as follows: item C is revised to govern the sampling procedures and statistical methods appropriate for the constituents and the facility, item D is revised to govern the determination of whether there is statistically significant evidence of contamination from any constituents in the permit, item E is redesignated as item F and revised to govern the frequency of collecting samples and conducting analyses, item F (existing) is redesignated as item G and revised to govern monitoring protocol for detecting and reporting additional constituents not identified in the permit, item H is revised to include amended federal language, and item I is revised to include amended federal language. These items are interrelated and this rulemaking replaces existing text in each of these items with the corresponding language provided in the federal amendment. Finally, the language found in 40 CFR Part 264.99 (e) is inserted as item E of this subpart.

F. Technical Corrections to Farmers' Exemptions.

This provision affects Minn. Rules pt. 7045.0213 which governs farmers' management of waste pesticides. EPA published these technical corrections on July 19, 1988 (53 FR 27164) to remedy errors in a rule published on August 8,

1986, and in an amendment published on July 8, 1987. The state had already corrected these errors during its original process of adopting these rules. The only remaining change required by this amendment is to extend the farmers' exemption to the rule parts governing land disposal restrictions. The Agency is proposing to adopt this federal provision without substantive change based on EPA's data and discussion supporting reasonableness as provided in Exhibit 6. The rulemaking adds Minn. Rules pts. 7045.1300 to 7045.1380, which govern land disposal restrictions, to those rule parts from which farmers are already exempted. This corresponds with 40 CFR Part 262.70.

G. Clarification of Trial Burn Information Requirements for the Modification of Existing Thermal Treatment Unit Permits.

This provision affects Minn. Rules pt. 7001.0700. The state hazardous waste rules currently provide permitting standards for hazardous waste thermal treatment facilities. Specifically, subpart 11 of Minn. Rules pt. 7001.0700 sets out the permitting requirements for existing facilities, including the procedures for modifying permits for these facilities. These state rules were originally the same as the corresponding federal permitting standards for these facilities.

On January 30, 1989, EPA issued a rule clarifying the language regarding the submittal of trial burn information for the modification of existing hazardous waste incinerator permits. Specifically, the federal amendment clarifies that owners or operators of existing incinerator facilities must either conduct a trial burn and submit the results prior to permit issuance or submit other approved information allowed for under the rules in lieu of conducting a trial burn. The permit conditions are then established using either the trial burn results or the approved alternate information. EPA believed that the existing language could be misinterpreted to mean that

permits may be written based on the submission of a "trial burn plan" instead of the actual results of a trial burn or approved alternate information. This is contrary to the intended meaning. The Agency concurs with EPA's assessment that the existing language governing the submittal of trial burn results could be confusing and is, therefore, proposing to incorporate the federal clarification without substantive change based on EPA's data and discussion supporting reasonableness as provided in Exhibit 7. The amendment is reasonable because it clarifies the original rule intent. The amendment is equivalent to 40 CFR Part 270.62(d).

H. Amendments Governing the Certification of Exemption Program for PCBs.

The proposed amendments involve changes to Minn. Rules pts. 7100.0340 and 7100.0350, the establishment of a new part, Minn. Rules pt. 7100.0335, and the repeal of Minn. Rules pt. 7100.0360. The regulated community has been burdened by the need to comply with two sets of equivalent regulations. In the interest of simpler procedures, without sacrificing protection of human health and the environment, the Agency believes it is reasonable to amend the state rules as discussed below.

1. The Agency is proposing to add Minn. Rules pt. 7100.0335 entitled "certificate of exemption required" to the state rules governing COEs and the management of PCBs. The proposed amendments provide for the same COE application and issuance process as the existing rules. However, the new part also adds provisions allowing persons to obtain a COE by rule under certain conditions. Persons will qualify for a COE by rule if they comply with the federal PCB regulations. This new part also states the justifications for terminating a person's eligibility for a COE by rule, which are: (1) the person does not comply with the federal PCB regulations; (2) the person is conducting other activities that are not regulated under the federal PCB

program but should be covered by the state PCB program; and (3) the Commissioner determines that there is an additional need to protect human health or the environment. Anyone not eligible for a COE by rule must go through the original COE application process.

Also, The Agency is proposing to reorganize a portion of the existing PCB rules. Minn. Rules pt. 7100.0360 sets out the PCB uses and PCB products that are exempt from the COE and labeling requirements. The Agency is proposing to move these listed exemptions to subpart 2 of proposed Minn. Rules pt. 7100.0335. The Agency believes moving the exemptions as proposed is reasonable because it is more logical to list the exemptions at the beginning of the PCB requirements so that persons may readily determine whether the rules apply, rather than at the end of the requirements where they currently exist.

The proposed COE by rule process is a reasonable approach to correcting problems with the existing COE program for several reasons. First, the process of allowing COEs by rule and terminating eligibility for COEs by rule corresponds to the "permit by rule" process for hazardous waste facilities (see Minn. Rules pt. 7001.0520). Second, the amended state rules would continue to satisfy the intent of the statute governing the state PCB program. The amended State rules will still provide the opportunity for the Agency to require, under certain circumstances, applications for individual COEs, public hearings on these individual COEs, and the issuance of written COEs. Third, nearly all persons required to have a written COE from the Agency would be able to qualify for the COE by rule because they are currently complying with the federal PCB regulations. This essentially provides for the removal of duplicative regulation without sacrificing the protection of human health and the environment. Fourth, the rules would still provide the Agency with the opportunity to terminate the COE by rule process and require an

individual COE for some persons (e.g., persons that consistently mismanage PCBs, or who conduct PCB management practices that are not regulated under the federal program but which the Agency believes should be regulated under the state program) through the "termination of eligibility for COE by rule" language.

The existing state rules governing the management of "waste" PCBs are not affected by the proposed amendments. Persons generating waste PCBs still need to meet the generator, treatment, storage, disposal, and transportation requirements existing in the state rules for waste PCBs (Minn. Rules pt. 7045.0135, subp. 5). This will allow the Agency to continue to monitor the movement and management of waste PCBs in the state. Also, spills still need to be reported to the Agency and spill cleanup is still conducted under Agency guidance.

2. Minn. Rules pt. 7100.0340 provides the procedures for applying for and obtaining a COE from the Agency and the terms and conditions to be included in a COE. The Agency is proposing to add subpart 21 to this part to specify two circumstances when a written COE is terminated. These are that the person issued a COE either meets the proposed COE by rule requirements or no longer conducts PCB activities requiring the COE. This proposed amendment reasonably states the circumstances when a written COE is no longer necessary and, therefore, persons maintaining written COEs under these circumstances should have their COEs terminated.

3. Minn. Rules pt. 7100.0350 sets out the labeling requirements for any person required to obtain a COE from the Agency. The Agency is proposing to amend Minn. Rules pt. 7100.0350 to delete the existing labeling requirements and require persons to comply with the labeling requirements of the federal PCB regulations. The Agency does not believe the minor differences between the

state and federal labeling requirements reflect any difference in the level of protection of human health and the environment. The regulated community has been burdened by the need to comply with both sets of requirements. The proposed amendments are reasonable because they will relieve this burden by requiring persons to comply with one set of appropriate labeling requirements.

4. Minn. Rules pt. 7100.0360 sets out the PCB uses and PCB products that are exempt from the COE and labeling requirements. The Agency is proposing to repeal this part in conjunction with moving the listed exemptions to proposed Minn. Rules pt. 7100.0335, subp. 2. It is unnecessary to also list them in a separate part of the rules. The Agency believes it is more logical to list the exemptions at the beginning of the PCB requirements so persons may determine whether the rules apply, rather than at the end of the requirements where they currently exist. Therefore, the Agency is proposing to repeal this part. Repealing Minn. Rules pt. 7100.0360 is reasonable because it will eliminate duplicative rule language in the rules. The reasonableness of moving the exemptions to Minn. Rules pt. 7100.0335, subp. 2 is explained in number 1 above.

IV. SMALL BUSINESS CONSIDERATIONS IN RULEMAKING

Minn. Stat. § 14.115, subd. 2 (1988) requires the Agency, when proposing amendments to existing rules which may affect small businesses, to consider the impact of the rule amendments on small business. Since the primary effect of the federal amendments governing the management of hazardous waste is to clarify and correct the scope and applicability of existing regulatory language, effects are anticipated to be minimal.

None of these are new rules and most pose no additional requirements. The only amendment with the effect of a new listing and potential resultant

burdens is the relisting of certain smelting wastes. However, these wastes had been included in the original lists of hazardous wastes, were removed by amendment, and are being reinstated as the result of a federal court order.

All except the delistings of iron dextran and strontium sulfide, and the farmers' exemptions are federal rules which Minnesota is required to adopt in order to maintain RCRA program authorization. If Minnesota did not adopt these, it would lose RCRA authorization and the federal program would be effective in the state. The farmers' exemption is promulgated by EPA under HSWA, which Minnesota has not received authorization to administer, and is immediately effective in this state whether or not the Agency adopts it. The above delistings are optional; however, they provide a potentially less restrictive level of regulation. Therefore, the Agency believes that there is little effect on any business subject to the federal requirements being amended, including small businesses, which would not otherwise be required under federal law.

Additionally, the amendments governing COEs for PCBs provides a process whereby persons need only comply with one set of regulations rather than the two sets currently required. Therefore, the Agency believes that any impacts the COE amendments may have on small business will be ones that save these businesses time and money.

V. CONSIDERATION OF ECONOMIC FACTORS

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

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

feasible, practical under the circumstances.

The primary effect of the federal amendments governing the management of hazardous waste is to clarify and correct the scope and applicability of existing regulatory language. No new regulations are being added to state rules. Treating certain smelting wastes as hazardous may appear to be a new requirement; however, this is a relisting of a waste which had originally been listed and was inappropriately delisted. Also, the impact resulting from this relisting would have been effective a year earlier in Minnesota under federal regulations in lieu of the authorized state program. Therefore, the Agency believes the overall impact of these amendments will be minor and in keeping with the original intent of the regulations. Where there are economic impacts on those subject to the federal amendments, they are no different from what would be required under federal law.

Also, the effect of the amendments governing COEs for PCBs is to save time and money for those managing PCBs. This amendment provides a process whereby persons need only comply with one set of regulations rather than the two sets currently required. Therefore, the Agency believes the economic impacts of the proposed COE amendments are economically positive in nature, and that due consideration has been given to the economic impacts of these amendments in Minnesota.

VI. CONCLUSION

The Agency believes that these rules adopting the federal amendments governing various aspects of managing hazardous waste, and the state initiated amendment of the rules governing COEs for PCBs are both needed and reasonable. Adopting the federal amendments assures that Minnesota's hazardous waste program complies with federal requirements for equivalency or, where optional, it provides consistency between state and federal rule language. The changes

governing COEs for PCBs provide simplification of what were duplicative requirements.

The Agency has, in this document, made its presentation of facts establishing the need for and reasonableness of the proposed amendments to Minnesota's rules governing the management of hazardous wastes and COEs for PCBs. This document and its exhibits constitute the Agency's Statement of Need and Reasonableness for the proposed amendments to Minnesota's rules governing the management of hazardous waste and COEs.

VII. LIST OF EXHIBITS

The Agency has referenced the following documents in support of these proposed amendments. These Federal Registers correspond with items A to G (1 to 7, respectively) listed in the Introduction section of this document.

1. Volume 53, Federal Register, page 34079, (53 FR 34079) September 2, 1988 regarding Storage and Treatment Tank Systems (Tank Systems).

2. 53 FR 43878, October 31, 1988 (Iron Dextran).

3. 53 FR 43881, October 31, 1988 (Strontium Sulfide).

4. 53 FR 35412, September 13, 1988 (Identification and Listing).

5. 53 FR 39720, October 11, 1988 (Statistical Methods).

6. 53 FR 27164, July 19, 1988 (Farmers' Exemptions).

7. 54 FR 4286, January 30, 1989 (Incinerator Permits).

Date: April 13, 1990

Barbara Lyndsey Simms

Gerald L. Willet

Commissioner

DEPARTMENT: Office of the Attorney General

STATE OF MINNESOTA

OFFICE MEMORANDUM

DATE: December 12, 1990

TO: NATHAN B. COOLEY
Hazardous Waste Division
MPCA

FROM: MARTHA J. CASSERLY
Special Assistant
Attorney General

PHONE: 296-6839

SUBJECT: In the Matter of the Adopted Rule Relating to
Hazardous Waste and Polychlorinated Biphenyls

The above-referenced rule has been approved as to its legality by the Attorney General on December 11, 1990.

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

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

Your next step is to arrange for publication of the Notice of Adoption in the State Register. In a day or two, you should receive from the Revisor's Office three copies of the notice of adoption of your rule. You should submit two copies of the Notice of Adoption to the State Register for publication. A permanent rule without a hearing does not become effective until five days after a notice of adoption is published in the State Register in accordance with Minn. Stat. § 14.27. An emergency rule becomes effective five working days after approval by the Attorney General; however, the agency must publish a notice in the State Register in accordance with Minn. Stat. § 14.34.

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

MJC:sc

cc: Al Mitchell
William Brown, Chief Judge
MaryAnn Hruby

MJC

RULE REVIEW CHECKLIST

File No. 1762
DATE RECEIVED 11-27-90
REVIEW DATE 12-6-90
DUE DATE 12-11-90
(DIS)APPROVED 12-11-90 mjc
WITHDRAWN _____

Docket No. 05.0009.~~#4~~0697
ADOPTED W/O HEARING _____
EMERGENCY RULE _____
TO REVISOR ON 11-28-90
REVISOR (DIS)APPROVED _____
FILED W/SEC. OF STATE 12-11-90
RETURNED TO AGENCY _____

✓ Rule as adopted (4 copies)

✓ Notice to Solicit Outside Information/Opinion (if applicable)
Sept 11, 1989 Date published in State Register
_____ Comments

_____ Petition for Adoption of a Rule

✓ Board's Authorizing Resolution
May 2, 1990 Date adopted

✓ Proposed Rule

_____ Revisor's Certificate

✓ Notice of Intent to Adopt Rule
116.37 (216C.37) Statutory Authority
✓ Small Business Statement
NA Expenditure of public money statement
8-29-90 Signature

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

✓ Affidavit of Mailing Notice of Intent to Adopt Rule
September 7, 1990 Dated (30)/25 days before adoption
✓ Notice attached indicates it is attached
_____ Copy of rule or summary attached

✓ Publication in State Register
Sept 10, 1990 Date (30)/25 days before adoption

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

✓ Resolution Adopting
Oct 23, 1990 Date adopted

✓ Findings of Fact, Conclusions & Order Adopting
10-23-90 Date

✓ Written Requests, Submissions or Comments

✓ Declaration of Attorney
Al Mitchell Name of SAAG representing agency

Nov 26, 1990 Notice of Submission to Attorney General (if applicable)

Nov 26, 1990 Affidavit of Mailing Notice to Attorney General (if applicable)

Pollution Control Agency

Adopted Permanent Rules Relating to Hazardous Waste and Polychlorinated Biphenyls

Rules as Adopted

7001.0700 HAZARDOUS WASTE THERMAL TREATMENT FACILITY PERMITS.

[For text of subps 1 to 10, see M.R.]

Subp. 11. **Requirements for existing hazardous waste thermal treatment facilities.** To determine the feasibility of compliance with the performance standards of part 7045.0542, subpart 4, and to determine adequate operating conditions under part 7045.0542, subpart 6, the applicant for a permit for an existing hazardous waste thermal treatment facility must prepare and submit to the commissioner a trial burn plan and perform a trial burn in accordance with subparts 3 to 8 and part 7001.0630, item B, or, instead, submit other information as specified in part 7001.0630, item C. Applicants submitting information under part 7001.0630, item A, are exempt from compliance with part 7045.0542, subparts 4 and 6, and, therefore, are exempt from the requirement to conduct a trial burn. An applicant who submits trial burn plans and who receives approval before submission of a permit application shall complete the trial burn and submit the results specified in subpart 6 with Part B of the permit application. Trial burn results must be submitted prior to issuance of the permit. If completion of this process conflicts with the date set for submission of the Part B application, the applicant shall contact the commissioner to establish a later date for the submission of the Part B application or trial burn results. When the applicant submits a trial burn plan with Part B of the permit application, the commissioner shall specify a time period prior to permit issuance in which the trial burn must be conducted and the results submitted.

7045.0020 DEFINITIONS.

Approved by Revisor CMR/Gmm

[For text of subps 1 to 15, see M.R.]

Subp. 15a. **Detect and detection.** "Detect" and "detection" refer to the finding of statistically significant evidence of contamination as described in part 7045.0484, subpart 12, item F.

[For text of subps 16 to 20, see M.R.]

Subp. 21. **Elementary neutralization unit.** "Elementary neutralization unit" means a device which:

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

B. meets the definition of tank, tank system, container, transport vehicle, or vessel.

[For text of subps 21a and 22, see M.R.]

Subp. 22a. **Exceed and exceeded.** "Exceed" and "exceeded" refer to the finding of statistically significant evidence of increased contamination as described in part 7045.0484, subpart 13, item D.

[For text of subps 23 to 102a, see M.R.]

Subp. 103. **Wastewater treatment unit.** "Wastewater treatment unit" means a device which:

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

C. meets the definition of "tank" as defined in subpart 90, or "tank system" as defined in subpart 90a.

[For text of subps 104 to 109, see M.R.]

7045.0120 EXEMPT WASTES.

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

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

I. waste from the extraction, beneficiation, and processing of ores and minerals, including coal, and including phosphate rock and overburden from the mining of uranium ore.

Solid waste from the processing of ores and minerals does not include:

(1) acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production;

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(2) surface impoundment solids contained in the dredged from surface impoundments at primary lead smelting facilities;

(3) sludge from treatment of process wastewater or acid plant blowdown from primary zinc production;

(4) spent potliners from primary aluminum reduction;

(5) emission control dust or sludge from ferrochromiumsilicon production; or

(6) emission control dust or sludge from ferrochromium production;

[For text of items J to P, see M.R.]

7045.0135 LISTS OF HAZARDOUS WASTES.

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

Subp. 3. **Hazardous waste from specific sources.** Hazardous wastes from specific sources are listed with the industry and hazardous waste number and hazard code in items A to Q.

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

I. Primary copper: K064, acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production: (T).

J. Primary lead: K065, surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities: (T).

K. Primary zinc: K066, sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production: (T).

L. Primary aluminum: K088, spent potliners from primary aluminum reduction: (T).

M. Ferroalloys:

(1) K090, emission control dust or sludge from ferrochromiumsilicon production: (T); and

(2) K091, emission control dust or sludge from ferrochromium production: (T).

N. Secondary lead:

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(1) K069, emission control dust or sludge from secondary lead smelting: (T); and

(2) K100, waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting: (T).

O. Veterinary pharmaceuticals:

(1) K084, wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T);

(2) K101, distillation tar residues from the distillation of aniline based compounds in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T); and

(3) K102, residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T).

P. Ink formulation: K086, solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, dryers, soaps, and stabilizers containing chromium and lead: (T).

Q. Coke:

(1) K060, ammonia still lime sludge from coking operations: (T); and

(2) K087, decanter tank tar sludge from coking operations: (T).

Subp. 4. **Discarded commercial chemical products, off specification species, containers, and spill residues.** The following materials or items are hazardous wastes when they are discarded or intended to be discarded as described in part 7045.0020, subpart 18; when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment; when they are otherwise applied to the land in lieu of their original intended use; when they are contained in products that are applied to the land in lieu of their original intended use; or when, in lieu of their

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original intended use, they are produced for use as, or as a component of a fuel, distributed for use as a fuel, or burned as a fuel.

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

E. the commercial chemical products or manufacturing chemical intermediates, or off specification commercial chemical products or manufacturing chemical intermediates referred to in items A to D and listed in subitems (1) to (17), are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, items B and C. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), and R (reactivity). Absence of a letter indicates that the compound is listed only for acute toxicity. These wastes and their corresponding hazardous waste numbers, Chemical Abstract Service registry numbers, if available, and hazard codes are listed in subitems (1) to (17).

[For text of subitems (1) to (12), see M.R.]

(13) Hazardous wastes from commercial chemical products beginning with the letter S:

(a) P114, 12039-52-0, Selenious acid, dithallium(1+) salt;

(b) P103, 630-10-4, Selenourea;

(c) P104, 506-64-9, Silver cyanide;

(d) P104, 506-64-9, Silver cyanide Ag(CN);

(e) P105, 26628-22-8, Sodium azide;

(f) P106, 143-33-9, Sodium cyanide;

(g) P106, 143-33-9, Sodium cyanide Na(CN);

(h) P108, 57-24-9, Strychnidin-10-one, and salts;

(i) P018, 357-57-3, Strychnidin-10-one, 2,3-dimethoxy-;

(j) P108, 57-24-9, Strychnine and salts; and

(k) P115, 7446-18-6, Sulfuric acid, dithallium(I+) salt.

[For text of subitems (14) to (17), see M.R.]

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F. The commercial chemical products or manufacturing chemical intermediates, or off-specification commercial chemical products referred to in items A to D, and listed in subitems (1) to (24) are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, item A. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), R (reactivity), I (ignitability), and C (corrosivity). Absence of a letter indicates that the compound is listed only for toxicity. These wastes and their corresponding hazardous waste numbers, Chemical Abstract Service registry numbers, if available, and hazard codes are listed as follows:

[For text of subitems (1) to (8), see M.R.]

(9) Hazardous wastes from commercial chemical products beginning with the letter I:

(a) U116, 96-45-7, 2-Imidazolidinethione;

(b) U137, 193-39-5, Indeno[1,2,3cd]pyrene;

(c) U190, 85-44-9, 1,3-Isobenzofurandione;

(d) U140, 78-83-1, Isobutyl alcohol: (I,T); and

(e) U141, 120-58-1, Isosafrole.

[For text of subitems (10) to (24), see M.R.]

[For text of subp 5, see M.R.]

7045.0139 BASIS FOR LISTING HAZARDOUS WASTES.

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

Subp. 2. **Constituents.** The constituents which are the basis for listing the wastes identified in part 7045.0135, subparts 2 and 3 are listed in items A and B.

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

B. Constituents of wastes identified in part 7045.0135, subpart 3 are listed in subitems (1) to (95).

[For text of subitems (1) to (54), see M.R.]

(55) K064: Lead, cadmium;

(56) K065: Lead, cadmium;

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(57) K066: Lead, cadmium;

(58) K069: Hexavalent chromium, lead, cadmium;

(59) K071: Mercury;

(60) K073: Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane;

(61) K083: Aniline, diphenylamine, nitrobenzene, phenylenediamine;

(62) K084: Arsenic;

(63) K085: Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride;

(64) K086: Lead, hexavalent chromium;

(65) K087: Phenol, naphthalene;

(66) K088: Cyanide (complexes);

(67) K090: Chromium;

(68) K091: Chromium;

(69) K093: Phthalic anhydride, maleic anhydride;

(70) K094: Phthalic anhydride;

(71) K095: 1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane;

(72) K096: 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane;

(73) K097: Chlordane, heptachlor;

(74) K098: Toxaphene;

(75) K099: 2,4-dichlorophenol, 2,4,6-trichlorophenol;

(76) K100: Hexavalent chromium, lead, cadmium;

(77) K101: Arsenic;

(78) K102: Arsenic;

(79) K103: Aniline, nitrobenzene, phenylenediamine;

(80) K104: Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine;

(81) K105: Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol;

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(82) K106: Mercury;

(83) K111: 2,4-Dinitrotoluene;

(84) K112: 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline;

(85) K113: 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline;

(86) K114: 2,4-Toluenediamine, o-toluidine, p-toluidine;

(87) K115: 2,4-Toluenediamine;

(88) K116: Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene;

(89) K117: Ethylene dibromide;

(90) K118: Ethylene dibromide;

(91) K123: Ethylene thiourea;

(92) K124: Ethylene thiourea;

(93) K125: Ethylene thiourea;

(94) K126: Ethylene thiourea; and

(95) K136: Ethylene dibromide.

7045.0141 HAZARDOUS CONSTITUENTS.

[For text of subps 1 to 9, see M.R.]

Subp. 10. **"I" constituents.** Hazardous constituents beginning with the letter I are as follows:

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

B. Isobutyl alcohol, 78-83-1, U140;

C. Isodrin, 465-73-6, P060; and

D. Isosafrole, 120-58-1, U141.

[For text of subps 11 to 17, see M.R.]

Subp. 18. **"S" constituents.** Hazardous constituents beginning with the letter S are as follows:

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

O. Strychnine, 57-24-9, P108; and

P. Strychnine salts, _____, P108.

[For text of subps 19 to 23, see M.R.]

7045.0213 FARMERS; PESTICIDES.

A farmer who generates waste pesticides which are hazardous

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waste and who complies with all of the requirements of part 7045.0304 is not required with respect to those pesticides, to comply with other standards in parts 7045.0205 to 7045.0304 or to comply with parts 7045.0450 to 7045.1380, or to obtain a hazardous waste facility permit.

7045.0484 GROUNDWATER PROTECTION.

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

Subp. 3. **Groundwater protection standard.** The owner or operator shall comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents detected in the groundwater from a regulated unit do not exceed the concentration limits in the groundwater at and beyond the point of compliance during the compliance period. The agency shall establish the groundwater protection standard in the facility permit when hazardous constituents have been detected in the groundwater based on data provided by monitoring of the groundwater quality as specified in subparts 11 and 12.

[For text of subps 4 to 10, see M.R.]

Subp. 11. **General groundwater monitoring requirements.** The owner or operator shall comply with the requirements of items A to J for any groundwater monitoring program developed to satisfy subpart 12, 13, or 14:

A. The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield groundwater samples from groundwater that:

(1) represent the quality of background groundwater that has not been affected by leakage from a regulated unit;

(a) a determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

i. hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

ii. sampling at other wells will

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provide an indication of background groundwater quality that is representative or more representative than that provided by the upgradient wells; and

[For text of subitem (2), see M.R.]

(3) allow for the detection of potential contamination from the regulated unit.

[For text of items B to F, see M.R.]

G. In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit shall be collected from background wells and wells at the compliance points. The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to groundwater from a facility will be detected. The owner or operator shall determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which shall be specified in the facility permit upon approval by the agency. This sampling procedure shall be:

(1) a sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport characteristics of the potential contaminants; or

(2) an alternate sampling procedure proposed by the owner or operator and approved by the commissioner.

H. The owner or operator shall specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the commissioner, will be specified in the facility permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical quantification limits are used in any of

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the following statistical procedures to comply with item I, subitem (5), the practical quantification limits must be proposed by the owner or operator and approved by the commissioner. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in item I.

(1) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) Another statistical test method submitted by the owner or operator and approved by the commissioner.

I. Any statistical method chosen under item H for specification in the facility permit shall comply with the following performance standards, as appropriate:

(1) The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be

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transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

(3) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the commissioner to be protective of human health and the environment.

(4) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be proposed by the owner or operator and subject to an approval by the agency to be protective of human health and the environment. These parameters will be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(5) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit approved by the commissioner which is used in the statistical method shall be the lowest concentration level that can be reliably achieved

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within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(6) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

J. Groundwater monitoring data collected in accordance with item G, including actual levels of constituents, must be maintained in the facility operating record. The agency shall specify in the permit when the data must be submitted for review.

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

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

C. The owner or operator shall conduct a groundwater monitoring program for each chemical parameter and hazardous constituent specified in the permit under item A in accordance with subpart 11, item G. The owner or operator shall maintain a record of groundwater analytical data as measured and in a form necessary for the determination of statistical significance under subpart 11, item H.

D. The agency shall specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit under item A in accordance with subpart 11, item G. A sequence of at least four samples from each well, background, and compliance wells, must be collected at least semiannually during detection monitoring.

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

F. The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter ~~of~~ or hazardous constituent specified in the permit under item A at a frequency specified under item D.

(1) In determining whether statistically

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significant evidence of contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. These methods must compare data collected at the compliance points to the background groundwater quality data.

(2) The owner or operator must determine whether there is statistically significant evidence of contamination at each monitoring well as the compliance point within a reasonable period of time after completion of sampling. The agency shall specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of groundwater samples.

G. If the owner or operator determines under item F that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified under item A at any monitoring well at the compliance point, the owner or operator must:

(1) Notify the commissioner of this finding in writing within seven days. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination.

(2) Immediately sample the groundwater in all monitoring wells and determine whether constituents in the list of part 7045.0143 are present, and if so, in what concentration.

(3) For part 7045.0143 compounds found in the analysis under subitem (2), the owner or operator may resample within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents shall form the basis for compliance monitoring. If the owner or operator does not resample, the hazardous constituents found during this initial part 7045.0143 analysis shall form the basis for compliance monitoring.

(4) Within 90 days, submit to the commissioner an application for a permit modification to establish a compliance

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monitoring program meeting the requirements of subpart 13. The application must include the following information:

(a) an identification of the concentration ~~or~~ of a part 7045.0143 constituent detected in the groundwater at each monitoring well at the compliance point;

(b) proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of subpart 13;

(c) proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of subpart 13; and

(d) for each hazardous constituent detected at the compliance point, a proposed concentration limit under subpart 6, item A or B, or a notice of intent to seek an alternate concentration limit under subpart 8.

(5) Within 180 days, submit to the commissioner all data necessary to justify an alternate concentration limit sought under subpart 8, and an engineering feasibility plan for a corrective action program necessary to meet the requirement of subpart 14, unless:

(a) all hazardous constituents identified under subitem (2), are listed in subpart 7 and their concentrations do not exceed the respective values given in that table; or

(b) the owner or operator has sought an alternate concentration limit under subpart 8 for every hazardous constituent identified under subitem (2).

(6) If the owner or operator determines, under item F, that there is a statistically significant difference for chemical parameters or hazardous constituents specified under item A at any monitoring well at the compliance point, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater.

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The owner or operator may make a demonstration under this paragraph in addition to, or in lieu of, submitting a permit modification application under subitem (4); however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in subitem (4) unless the demonstration made under this subitem successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration, the owner or operator shall:

(a) notify the commissioner in writing within seven days of determining statistically significant evidence of contamination at the compliance point that the owner or operator intends to make a demonstration under this subunit;

(b) within 90 days, submit a report to the commissioner which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from an error in sampling, analysis, or evaluation;

(c) within 90 days, submit to the commissioner an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

(d) continue to monitor in accordance with the detection monitoring program established under this subpart.

H. If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this subpart, the owner or operator must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

Subp. 13. **Compliance monitoring program.** An owner or operator required to establish a compliance monitoring program under this part shall perform the following:

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

C. The agency shall specify the sampling procedures and statistical methods appropriate for the constituents and the facility, consistent with subpart 11, items G and H as described

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in subitems (1) and (2).

(1) The owner or operator must conduct a sampling program for each chemical parameter or hazardous constituent in accordance with subpart 11, item G.

(2) The owner or operator must record groundwater analytical data as measured and in the form necessary for the determination of statistical significance under subpart 11, item H, for the compliance period of the facility.

D. The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, under item A, at a frequency specified under item F.

(1) In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. The methods must compare data collected at the compliance points to a concentration limit developed in accordance with subpart 6.

(2) The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The agency will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities, to perform the analysis of groundwater samples.

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

F. The agency shall specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with subpart 11, item G. A sequence of at least four samples from each background and compliance well must be collected at least semiannually during the compliance period of the facility.

G. The owner or operator must analyze samples from all monitoring wells at the compliance point for all

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constituents contained in part 7045.0143 at least annually to determine whether additional hazardous constituents are present in the uppermost aquifer and, if so, at what concentration, according to procedures in subpart 12, item F. If the owner or operator finds part 7045.0143 constituents in the groundwater that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month and repeat the part 7045.0143 analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentration of these additional constituents to the commissioner within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then the owner or operator shall report the concentrations of these additional constituents to the commissioner within seven days after completion of the initial analysis and add them to the monitoring list.

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

I. If the owner or operator determines, under item G or H, that the groundwater protection standard is being exceeded at any monitoring well at the point of compliance, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, statistical evaluation, or natural variation in the groundwater. Until the owner or operator makes a demonstration, the owner or operator is not relieved of the requirement to submit a permit modification application if necessary to comply with item H within the time specified in item H, subitem (2) or of the requirement to institute corrective actions as established in item H, subitem (2). In making a demonstration, the owner or operator shall:

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

[For text of items J and K, see M.R.]

[For text of subp 14, see M.R.]

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7045.0488 CLOSURE ACTIVITIES.

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

Subp. 3. **Disposal or decontamination of equipment, structures, and soils.** During the partial and final closure periods, all contaminated facility equipment, structures, and soils must be properly disposed of or decontaminated unless otherwise specified in part 7045.0528, subpart 9; 7045.0532, subpart 7; 7045.0534, subpart 7; 7045.0536, subpart 8; or 7045.0538, subpart 7, or under the authority of part 7045.0539, subparts 2 and 4. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of parts 7045.0205 to 7045.0304.

[For text of subp 4, see M.R.]

7045.0528 TANK SYSTEMS.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that use tank systems to treat or store hazardous waste, except as part 7045.0450, and items A and B provide otherwise.

A. Tank systems that are used to store or treat hazardous waste that contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. Tank systems, including sumps, as defined in part 7045.0020, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempt from the requirements in subparts 4 and 5.

[For text of subps 2 and 3, see M.R.]

Subp. 4. **Containment and detection of releases.** The following requirements apply to the containment and detection of

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releases from tanks:

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

H. Ancillary equipment must be provided with secondary containment, such as trench, jacketing, or double walled piping, that meets the requirements of items B and C, except for:

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

(3) sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis; and

[For text of subitem (4), see M.R.]

[For text of subps 5 to 11, see M.R.]

7045.0596 CLOSURE ACTIVITIES.

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

Subp. 3. **Disposal or decontamination of equipment, structures, and soils.** During the partial and final closure periods, all contaminated facility equipment, structures, and soils must be properly disposed of or decontaminated, unless otherwise specified in part 7045.0628, subpart 9; 7045.0630, subpart 6; 7045.0632, subpart 7; 7045.0634, subpart 6; or 7045.0638, subpart 4. By removing any hazardous wastes or hazardous constituents during partial or final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of parts 7045.0205 to 7045.0304.

[For text of subp 4, see M.R.]

7045.0600 POST CLOSURE.

Subpart 1. **Scope.** This part and parts 7045.0602 to 7045.0606 apply to the owners and operators of all hazardous waste disposal facilities, including surface impoundments and waste piles from which the owner or operator intends to remove the wastes at closure, to the extent that the owner or operator is required to provide post closure care in part 7045.0630, subpart 6, or in part 7045.0632, subpart 7, and also tank systems that are required under part 7045.0628, subpart 9, to

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meet the requirements for landfills, except as provided otherwise in part 7045.0552.

[For text of subps 2 and 3, see M.R.]

7045.0628 TANK SYSTEMS.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that use tank systems to treat or store hazardous waste, except as items A and B and part 7045.0552 provide otherwise.

A. Tank systems that are used to store or treat hazardous waste containing no free liquids and that are located inside a building with an impermeable floor are exempt from the requirements of subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. Tank systems, including sumps, as defined in part 7045.0020 that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in subparts 4 and 5.

[For text of subps 2 and 3, see M.R.]

Subp. 4. **Containment and detection of releases.**

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

H. Ancillary equipment must be provided with full secondary containment, such as trench, jacketing, or double walled piping, that meets the requirements of items B and C, except for:

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

(3) sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

[For text of subitem (4), see M.R.]

[For text of subps 5 to 12, see M.R.]

7045.0629 REQUIREMENTS FOR SMALL QUANTITY GENERATORS THAT ACCUMULATE HAZARDOUS WASTE IN TANKS.

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

Subp. 3. **Inspections.** Small quantity generators must inspect, where present:

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

C. the level of waste in the tank at least once each operating day to ensure compliance with subpart 2, item C;

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

[For text of subps 4 to 6, see M.R.]

7100.0335 CERTIFICATE OF EXEMPTION REQUIRED.

Subpart 1. **Certification of exemption required.** Except as provided in subpart 2, no person may use, possess, sell, purchase, or manufacture PCB, a product containing PCB, or a class of products containing PCB without obtaining a certificate of exemption from the agency.

Subp. 2. **Exclusions.** The requirement to obtain a certification of exemption does not apply to the following uses or products:

A. any product containing PCB that was purchased or otherwise acquired by an individual person for consumer use in the home;

B. wastepaper, pulp, or other wood fiber materials purchased for use within this state in the manufacture of recycled paper products; and

C. any electrical ballast, capacitor, or transformer that contains less than one kilogram of PCB.

Subp. 3. **Certification of exemption by rule.** Any person who is required to obtain a certificate of exemption shall be considered to have obtained a certification of exemption without making application for it, if:

A. the person complies with the manufacturing, processing, distribution, use, disposal, storage, and labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761;

B. the person's eligibility to obtain or maintain a certification of exemption by rule has not been terminated under

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subpart 4; and

C. the person submits a written notification to the commissioner that explains the PCB activities the person will be conducting that require a certification of exemption.

The notification requirement in item C does not apply to a person who was issued a certification of exemption under part 7100.0340 and then had the certification of exemption terminated under part 7100.0340, subpart 21, item A.

Subp. 4. **Termination of eligibility for certification of exemption by rule.** The eligibility of a person to receive or maintain a certification of exemption by rule under subpart 3 is subject to termination by the agency after notice and opportunity for a public informational meeting or a contested case hearing if the agency makes any of the findings in items A to C. A person whose eligibility to be exempted by rule under subpart 3 has been terminated shall apply for and obtain an individual certification of exemption under these parts. The following findings constitute justification for the commissioner to commence proceedings to terminate eligibility:

A. that the person does not comply with the manufacturing, processing, distribution, use, disposal, storage, and labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761;

B. that the person is conducting other activities that are not regulated under the federal PCB program in Code of Federal Regulations, title 40, part 761, and are required to be covered by a certification of exemption; and

C. that under the circumstances, in order to protect human health or the environment, the person should be subject to the requirement to obtain an individual certification of exemption under these parts.

7100.0340 CERTIFICATE OF EXEMPTION.

[For text of subps 1 to 20, see M.R.]

Subp. 21. **Termination of certification of exemption.** A certificate of exemption is terminated and the terms and

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conditions of the certificate of exemption are no longer in force or effect under the following circumstances:

A. the person issued the certificate of exemption meets the requirements for a certification of exemption by rule in part 7100.0335, subpart 3; or

B. the person issued the certificate of exemption no longer uses, possesses, sells, purchases, or manufactures PCB, a product containing PCB, or a class of products containing PCB and has submitted a written notification to the commissioner stating this fact.

A person described in item B shall submit written notification to the commissioner within 30 days of stopping PCB activities that require a certificate of exemption.

7100.0350 LABELS.

Any person in this state who sells any item, product, or material which contains PCB shall comply with all of the labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761. The above labeling requirements do not apply to the uses or products excluded in part 7100.0335, subpart 2.

REPEALER. Minnesota Rules, part 7100.0360, is repealed.

APPROVED AS TO FORM AND LEGALITY
December 11 19 90
HUBERT H. HUMPHREY, III
ATTORNEY GENERAL
BY MJ Cassely
SPECIAL ASSISTANT ATTORNEY GENERAL

STATE OF MINNESOTA
DEPARTMENT OF STATE
FILED
DEC 11 1990
Joan Anderson Growe
Secretary of State

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Office Of the Revisor of Statutes

Ex. #11

Administrative Rules

Carla M. Riehle
Assistant Revisor
297-2948

700 State Office Building
100 Constitution Avenue
St. Paul, MN 55155-1297

May 2, 1990

Nathan Cooley
Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

RE: File No. 1601

Dear Nathan:

I am enclosing six copies of your rules, approved as to form.
Please submit two copies to the State Register for publication.

If you have any questions, please call me.

Very truly yours,

Carla M. Riehle

Exhibit No. X

Office of the Revisor of Statutes

Administrative Rules

TITLE: Proposed Permanent Rules Relating to Hazardous Waste and Polychlorinated Biphenyls

AGENCY: Pollution Control Agency

MINNESOTA RULES: Chapters 7001, 7045, and 7100

The attached rules are approved for publication in the State Register

Carla M. Riehle
Assistant Revisor

Pollution Control Agency

Proposed Permanent Rules Relating to Hazardous Waste and Polychlorinated Biphenyls

Rules as Proposed

7001.0700 HAZARDOUS WASTE THERMAL TREATMENT FACILITY PERMITS.

[For text of subps 1 to 10, see M.R.]

Subp. 11. **Requirements for existing hazardous waste thermal treatment facilities.** To determine the feasibility of compliance with the performance standards of part 7045.0542, subpart 4, and to determine adequate operating conditions under part 7045.0542, subpart 6, the applicant for a permit for an existing hazardous waste thermal treatment facility ~~may~~ must prepare and submit to the commissioner a trial burn plan and perform a trial burn in accordance with subparts 3 to 8~~.~~ and part 7001.0630, item B, or, instead, submit other information as specified in part 7001.0630, item C. Applicants submitting information under part 7001.0630, item A, are exempt from compliance with part 7045.0542, subparts 4 and 6, and, therefore, are exempt from the requirement to conduct a trial burn. An applicant who submits trial burn plans and who receives approval before submission of a permit application shall complete the trial burn and submit the results specified in subpart 6 with Part B of the permit application. Trial burn results must be submitted prior to issuance of the permit. If completion of this process conflicts with the date set for submission of the Part B application, the applicant shall contact the commissioner to establish a later date for the submission of the Part B application or trial burn results. ~~If~~ When the applicant submits a trial burn plan with Part B of the permit application, the commissioner shall specify a time period prior to permit issuance in which the trial burn must be conducted and the results ~~must be~~ submitted ~~within a time period to be specified by the commissioner~~.

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7045.0020 DEFINITIONS.

[For text of subps 1 to 15, see M.R.]

Subp. 15a. **Detect and detection.** "Detect" and "detection" refer to the finding of statistically significant evidence of contamination as described in part 7045.0484, subpart 12, item F.

[For text of subps 16 to 20, see M.R.]

Subp. 21. **Elementary neutralization unit.** "Elementary neutralization unit" means a device which:

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

B. meets the definition of tank, tank system, container, transport vehicle, or vessel.

[For text of subps 21a and 22, see M.R.]

Subp. 22a. **Exceed and exceeded.** "Exceed" and "exceeded" refer to the finding of statistically significant evidence of increased contamination as described in part 7045.0484, subpart 13, item D.

[For text of subps 23 to 102a, see M.R.]

Subp. 103. **Wastewater treatment unit.** "Wastewater treatment unit" means a device which:

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

C. meets the definition of "tank" as defined in subpart 90, or "tank system" as defined in subpart 90a.

[For text of subps 104 to 109, see M.R.]

7045.0120 EXEMPT WASTES.

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

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

I. waste from the extraction, beneficiation, and processing of ores and minerals, including coal, and including phosphate rock and overburden from the mining of uranium ore~~;~~.

Solid waste from the processing of ores and minerals does not include:

(1) acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary

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copper production;

(2) surface impoundment solids contained in the dredged from surface impoundments at primary lead smelting facilities;

(3) sludge from treatment of process wastewater or acid plant blowdown from primary zinc production;

(4) spent potliners from primary aluminum reduction;

(5) emission control dust or sludge from ferrochromiumsilicon production; or

(6) emission control dust or sludge from ferrochromium production;

[For text of items J to P, see M.R.]

7045.0135 LISTS OF HAZARDOUS WASTES.

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

Subp. 3. **Hazardous waste from specific sources.** Hazardous wastes from specific sources are listed with the industry and hazardous waste number and hazard code in items A to ~~Ь~~ Q.

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

I. Primary copper: K064, acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production: (T).

J. Primary lead: K065, surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities: (T).

K. Primary zinc: K066, sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production: (T).

L. Primary aluminum: K088, spent potliners from primary aluminum reduction: (T).

M. Ferroalloys:

(1) K090, emission control dust or sludge from ferrochromiumsilicon production: (T); and

(2) K091, emission control dust or sludge from ferrochromium production: (T).

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N. Secondary lead:

(1) K069, emission control dust or sludge from secondary lead smelting: (T); and

(2) K100, waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting: (T).

~~Г~~ O. Veterinary pharmaceuticals:

(1) K084, wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T);

(2) K101, distillation tar residues from the distillation of aniline based compounds in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T); and

(3) K102, residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T).

~~К~~ P. Ink formulation: K086, solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, dryers, soaps, and stabilizers containing chromium and lead: (T).

~~Б~~ Q. Coke:

(1) K060, ammonia still lime sludge from coking operations: (T); and

(2) K087, decanter tank tar sludge from coking operations: (T).

Subp. 4. **Discarded commercial chemical products, off specification species, containers, and spill residues.** The following materials or items are hazardous wastes when they are discarded or intended to be discarded as described in part 7045.0020, subpart 18; when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment; when they are otherwise applied to the land in lieu of their original intended use; when they are contained in products that are applied to the land in lieu

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of their original intended use; or when, in lieu of their original intended use, they are produced for use as, or as a component of a fuel, distributed for use as a fuel, or burned as a fuel.

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

E. the commercial chemical products or manufacturing chemical intermediates, or off specification commercial chemical products or manufacturing chemical intermediates referred to in items A to D and listed in subitems (1) to (17), are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, items B and C. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), and R (reactivity). Absence of a letter indicates that the compound is listed only for acute toxicity. These wastes and their corresponding hazardous waste numbers, Chemical Abstract Service registry numbers, if available, and hazard codes are listed in subitems (1) to (17).

[For text of subitems (1) to (12), see M.R.]

(13) Hazardous wastes from commercial chemical products beginning with the letter S:

(a) P114, 12039-52-0, Selenious acid, dithallium(1+) salt;

(b) P103, 630-10-4, Selenourea;

(c) P104, 506-64-9, Silver cyanide;

(d) P104, 506-64-9, Silver cyanide Ag(CN);

(e) P105, 26628-22-8, Sodium azide;

(f) P106, 143-33-9, Sodium cyanide;

(g) P106, 143-33-9, Sodium cyanide Na(CN);

(h) ~~P107, 1314-96-1, Strontium sulfide;~~

~~(i) P107, 1314-96-1, Strontium sulfide SrS;~~

~~(j)~~ P108, 57-24-9, Strychnidin-10-one, and salts;

~~(k)~~ (i) P018, 357-57-3, Strychnidin-10-one, 2,3-dimethoxy-;

~~(l)~~ (j) P108, 57-24-9, Strychnine and salts;

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and

~~[m]~~ (k) P115, 7446-18-6, Sulfuric acid, dithallium(I+) salt.

[For text of subitems (14) to (17), see M.R.]

F. The commercial chemical products or manufacturing chemical intermediates, or off-specification commercial chemical products referred to in items A to D, and listed in subitems (1) to (24) are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, item A. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), R (reactivity), I (ignitability), and C (corrosivity). Absence of a letter indicates that the compound is listed only for toxicity. These wastes and their corresponding hazardous waste numbers, Chemical Abstract Service registry numbers, if available, and hazard codes are listed as follows:

[For text of subitems (1) to (8), see M.R.]

(9) Hazardous wastes from commercial chemical products beginning with the letter I:

(a) U116, 96-45-7, 2-Imidazolidinethione;

(b) U137, 193-39-5, Indeno[1,2,3cd]pyrene;

(c) ~~U139, 9004-66-4, Iron dextran;~~

~~[d]~~ U190, 85-44-9, 1,3-Isobenzofurandione;

~~[e]~~ (d) U140, 78-83-1, Isobutyl alcohol: (I,T); and

~~[f]~~ (e) U141, 120-58-1, Isosafrole.

[For text of subitems (10) to (24), see M.R.]

[For text of subp 5, see M.R.]

7045.0139 BASIS FOR LISTING HAZARDOUS WASTES.

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

Subp. 2. **Constituents.** The constituents which are the basis for listing the wastes identified in part 7045.0135, subparts 2 and 3 are listed in items A and B.

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

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B. Constituents of wastes identified in part 7045.0135, subpart 3 are listed in subitems (1) to ~~{89}~~ (95).

[For text of subitems (1) to (54), see M.R.]

(55) K064: Lead, cadmium;

(56) K065: Lead, cadmium;

(57) K066: Lead, cadmium;

(58) K069: Hexavalent chromium, lead, cadmium;

~~{56}~~ (59) K071: Mercury;

~~{57}~~ (60) K073: Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane;

~~{58}~~ (61) K083: Aniline, diphenylamine, nitrobenzene, phenylenediamine;

~~{59}~~ (62) K084: Arsenic;

~~{60}~~ (63) K085: Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride;

~~{61}~~ (64) K086: Lead, hexavalent chromium;

~~{62}~~ (65) K087: Phenol, naphthalene;

(66) K088: Cyanide (complexes);

(67) K090: Chromium;

(68) K091: Chromium;

~~{63}~~ (69) K093: Phthalic anhydride, maleic anhydride;

~~{64}~~ (70) K094: Phthalic anhydride;

~~{65}~~ (71) K095: 1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane;

~~{66}~~ (72) K096: 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane;

~~{67}~~ (73) K097: Chlordane, heptachlor;

~~{68}~~ (74) K098: Toxaphene;

~~{69}~~ (75) K099: 2,4-dichlorophenol, 2,4,6-trichlorophenol;

~~{70}~~ (76) K100: Hexavalent chromium, lead, cadmium;

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~~(71)~~ (77) K101: Arsenic;

~~(72)~~ (78) K102: Arsenic;

~~(73)~~ (79) K103: Aniline, nitrobenzene, phenylenediamine;

~~(74)~~ (80) K104: Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine;

~~(75)~~ (81) K105: Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol;

~~(76)~~ (82) K106: Mercury;

~~(77)~~ (83) K111: 2,4-Dinitrotoluene;

~~(78)~~ (84) K112: 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline;

~~(79)~~ (85) K113: 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline;

~~(80)~~ (86) K114: 2,4-Toluenediamine, o-toluidine, p-toluidine;

~~(81)~~ (87) K115: 2,4-Toluenediamine;

~~(82)~~ (88) K116: Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene;

~~(83)~~ (89) K117: Ethylene dibromide;

~~(84)~~ (90) K118: Ethylene dibromide;

~~(85)~~ (91) K123: Ethylene thiourea;

~~(86)~~ (92) K124: Ethylene thiourea;

~~(87)~~ (93) K125: Ethylene thiourea;

~~(88)~~ (94) K126: Ethylene thiourea; and

~~(89)~~ (95) K136: Ethylene dibromide.

7045.0141 HAZARDOUS CONSTITUENTS.

[For text of subps 1 to 9, see M.R.]

Subp. 10. **"I" constituents.** Hazardous constituents beginning with the letter I are as follows:

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

B. ~~Iron-dextran, 9004-66-4, U139,~~

~~C.~~ Isobutyl alcohol, 78-83-1, U140;

~~D~~ C. Isodrin, 465-73-6, P060; and

~~E~~ D. Isosafrole, 120-58-1, U141.

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[For text of subps 11 to 17, see M.R.]

Subp. 18. **"S" constituents.** Hazardous constituents beginning with the letter S are as follows:

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

O. ~~Strontium sulfide, 1314-96-1, P107;~~

~~P.~~ Strychnine, 57-24-9, P108; and

~~Q~~ P. Strychnine salts, _____, P108.

[For text of subps 19 to 23, see M.R.]

7045.0213 FARMERS; PESTICIDES.

A farmer who generates waste pesticides which are hazardous waste and who complies with all of the requirements of part 7045.0304 is not required with respect to those pesticides, to comply with other standards in parts 7045.0205 to 7045.0304 or to comply with parts 7045.0450 to ~~7045.1030~~ 7045.1380, or to obtain a hazardous waste facility permit.

7045.0484 GROUNDWATER PROTECTION.

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

Subp. 3. **Groundwater protection standard.** The owner or operator shall comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents ~~entering~~ detected in the groundwater from a regulated unit do not exceed the concentration limits in the groundwater at and beyond the point of compliance during the compliance period. The agency shall establish the groundwater protection standard in the facility permit when hazardous constituents have been detected in the groundwater based on data provided by monitoring of the groundwater quality as specified in subparts 11 and 12.

[For text of subps 4 to 10, see M.R.]

Subp. 11. **General groundwater monitoring requirements.** The owner or operator shall comply with the requirements of items A to J for any groundwater monitoring program developed to satisfy subpart 12, 13, or 14:

A. The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield groundwater samples from groundwater that:

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(1) represent the quality of background groundwater that has not been affected by leakage from a regulated unit;

(a) a determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

i. hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

ii. sampling at other wells will provide an indication of background groundwater quality that is representative or more representative than that provided by the upgradient wells; and

[For text of subitem (2), see M.R.]

(3) ~~are likely to detect~~ allow for the detection of potential contamination from the regulated unit.

[For text of items B to F, see M.R.]

~~G.--The ground-water monitoring program must establish background ground-water quality for each hazardous constituent which may reasonably be expected to be in or derived from the wastes to be managed at the facility and for each of the hazardous constituents or monitoring parameters specified in the permit.--The agency may also require the establishment of background values as well as periodic monitoring of ground-water for chemical components and physical properties which are necessary to document ground-water quality.--The agency may require additional ground-water monitoring systems if the subsurface beneath the regulated unit contains multiple soil or rock formations and if these formations have significant hydraulic or compositional differences.--The basis of background ground-water quality must be as follows:~~

~~(1) For new facilities, background ground-water quality for a hazardous constituent or monitoring parameter must be based on data from at least quarterly sampling of all monitoring wells at the waste management area for one year prior to operation.~~

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~~(2) For existing facilities, background ground water quality for a hazardous constituent or monitoring parameter must be based on data from at least quarterly sampling of all monitoring wells upgradient from the waste management area for one year.~~

~~(3) For facilities in a compliance monitoring program, background ground water quality for a hazardous constituent or monitoring parameter must be based on data from upgradient wells that: are available before the permit is issued, account for measurement errors in sampling and analysis, and account, to the extent feasible, for seasonal fluctuations in background ground water quality if the fluctuations are expected to affect the concentration of the hazardous constituent or monitoring parameter.~~

~~(4) Background ground water quality may be based on alternate procedures if the agency determines that sampling at other wells provides an indication of background ground water quality that is as representative as that provided by the procedures in subitems (1) and (2).~~

~~(5) In developing the data base used to determine a background value for a monitoring parameter or hazardous constituent, the owner or operator shall take a minimum of one sample from each well and a minimum of four samples from the entire system used to determine background ground water quality, each time the system is sampled.~~

~~H. The owner or operator shall use one of the statistical procedures given in subitems (1) and (2) in determining whether background values or concentration limits have been exceeded if, in a detection monitoring program, the level of a hazardous constituent or monitoring parameter at the compliance point is to be compared to the hazardous constituent's or monitoring parameter's background value and that background value has a sample coefficient of variation less than 1.00. The statistical procedures are:~~

~~(1) The owner or operator shall take at least four portions from a sample at each well at the compliance point~~

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and-determine-whether-the-difference-between-the-mean-of-the hazardous-constituent-or-monitoring-parameter-at-each-well, using-all-portions-taken, and-the-background-value-for-the hazardous-constituent-or-monitoring-parameter-is-significant-at the-0.05-level-using-the-Cochran's-Approximation-to-the Behrens-Fisher-Students'-t-test-as-described-in-part-7045.0544. If-the-test-indicates-that-the-difference-is-significant, the owner-or-operator-shall-repeat-the-same-procedure, with-at-least the-same-number-of-portions-as-used-in-the-first-test, with-a fresh-sample-from-the-monitoring-well.--Within-seven-days-of completing-the-statistical-analysis-of-the-data-from-the-first round-of-sampling, the-owner-or-operator-shall-collect-the-fresh ground-water-sample-from-the-monitoring-well.--If-the-second round-of-analyses-indicates-that-the-difference-is-significant, the-owner-or-operator-shall-conclude-that-a-statistically significant-change-has-occurred.

(2)-The-owner-or-operator-may-use-an-equivalent statistical-procedure-for-determining-whether-a-statistically significant-change-has-occurred.--The-agency-shall-specify-the procedure-in-the-facility-permit-if-it-finds-that-the alternative-procedure-reasonably-balances-the-probability-of falsely-identifying-a-noncontaminating-regulated-unit-and-the probability-of-failing-to-identify-a-contaminating-regulated unit-in-a-manner-that-is-comparable-to-that-of-the-statistical procedure-described-in-subitem-(i).

i.--In-a-compliance-monitoring-program-and-in situations-where-the-sample-coefficient-of-variation-is-not-less than-1.00-between-the-hazardous-constituent's-or-monitoring parameter's-background-value-and-the-level-of-a-hazardous constituent-or-monitoring-parameter-at-the-compliance-point-in-a detection-monitoring-program, the-owner-or-operator-shall-use-a statistical-procedure-providing-reasonable-confidence-that-the migration-of-hazardous-constituents-or-monitoring-parameters from-a-regulated-unit-into-and-through-the-ground-water-will-be indicated.--The-agency-shall-specify-a-statistical-procedure-in the-facility-permit-that-it-finds:

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~~(1) is appropriate for the distribution of the data used to establish background values or concentration limits, and~~

~~(2) provides a reasonable balance between the probability of falsely identifying a noncontaminating regulated unit and the probability of failing to identify a contaminating regulated unit.~~

~~J. The owner or operator shall provide the commissioner in writing with any field data, analytical data, and statistical calculations from the sampling of ground water monitoring wells as part of establishing or complying with the general ground water monitoring requirements, ground water protection standard, detection monitoring program, compliance monitoring program, or corrective action program. The data and calculations shall be submitted within seven days after the completion of statistical calculations, unless a different reporting period is established in the permit.~~

G. In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit shall be collected from background wells and wells at the compliance points. The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to groundwater from a facility will be detected. The owner or operator shall determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which shall be specified in the facility permit upon approval by the agency. This sampling procedure shall be:

(1) a sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport

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characteristics of the potential contaminants; or

(2) an alternate sampling procedure proposed by the owner or operator and approved by the commissioner.

H. The owner or operator shall specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the commissioner, will be specified in the facility permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical, quantification limits are used in any of the following statistical procedures to comply with item I, subitem (5), the practical quantification limits must be proposed by the owner or operator and approved by the commissioner. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in item I.

(1) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) Another statistical test method submitted by

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the owner or operator and approved by the commissioner.

I. Any statistical method chosen under item H for specification in the facility permit shall comply with the following performance standards, as appropriate:

(1) The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

(3) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the commissioner to be protective of human health and the environment.

(4) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be proposed by the owner or operator and subject to an approval by the agency to be protective of human health and the

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environment. These parameters will be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(5) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit approved by the commissioner which is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(6) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

J. Groundwater monitoring data collected in accordance with item G, including actual levels of constituents, must be maintained in the facility operating record. The agency shall specify in the permit when the data must be submitted for review.

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

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

~~C.--The-owner-or-operator-shall-establish-a-background value-for-each-monitoring-parameter-or-hazardous-constituent which-may-reasonably-be-expected-to-be-in-or-derived-from-the wastes-to-be-managed-at-the-facility.--The-permit-must-specify the-hazardous-constituents-and-monitoring-parameters-and-their background-values-or-specify-the-procedures-to-be-used-to calculate-the-background-values.~~

~~The-owner-or-operator-shall-comply-with-subpart-11,-item-G, in-developing-the-data-base-used-to-determine-background-values.~~

~~The-owner-or-operator-shall-express-background-values-in-a form-necessary-for-the-determination-of-statistically~~

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~~significant-increases-under-subpart-11,-items-H-and-I.~~

~~In-taking-samples-used-in-the-determination-of-background values,-the-owner-or-operator-shall-use-a-ground-water monitoring-system-that-complies-with-subpart-11,-items-A, subitem-(1),-B,-and-C.~~

~~B.--The-owner-or-operator-shall-determine-ground-water quality-at-each-monitoring-well-at-the-compliance-point-for-a monitoring-parameter-or-hazardous-constituent-under-item-A-at least-semiannually-during-the-active-life-of-a-regulated-unit, including-the-closure-period,-and-the-post-closure-care-period. The-owner-or-operator-shall-express-the-ground-water-quality-at a-monitoring-well-in-a-form-necessary-for-the-determination-of statistically-significant-increases-under-subpart-11,-items-H and-I.~~

C. The owner or operator shall conduct a groundwater monitoring program for each chemical parameter and hazardous constituent specified in the permit under item A in accordance with subpart 11, item G. The owner or operator shall maintain a record of groundwater analytical data as measured and in a form necessary for the determination of statistical significance under subpart 11, item H.

D. The agency shall specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit under item A in accordance with subpart 11, item G. A sequence of at least four samples from each well, background, and compliance wells, must be collected at least semiannually during detection monitoring.

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

~~F.--The-owner-or-operator-shall-use-procedures-and methods-for-sampling-and-analysis-that-meet-the-requirements-of subpart-11,-items-B-and-E.~~

~~G.--The-owner-or-operator-shall-determine-whether there-is-a-statistically-significant-increase-over-background values-for-a-monitoring-parameter-or-hazardous-constituent~~

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specified in the permit pursuant to item A, or item B, subitem (2), where applicable, each time he or she determines ground water quality at the compliance point under items D and E.

In determining whether a statistically significant increase has occurred, the owner or operator shall compare the ground water quality at each monitoring well at the compliance point for each monitoring parameter or hazardous constituent to the background value for that monitoring parameter or hazardous constituent, according to the statistical procedure specified in the permit under subpart 11, items H and I.

The owner or operator shall determine whether there has been a statistically significant increase at each monitoring well at the compliance point within the time period established in the permit.

H. If the owner or operator determines that there is a statistically significant increase for monitoring parameters or hazardous constituents specified under item A, or item B, subitem (2), where applicable, at any monitoring well at the compliance point, the owner or operator shall:

(1) Notify the commissioner of this finding in writing within seven days. The notification must indicate the monitoring parameters or hazardous constituents that have shown statistically significant increases and identify the wells in which the increases have occurred.

(2) Immediately sample the groundwater in all monitoring wells and determine whether hazardous constituents identified in the list in part 7045.0143 are present and, if they are present, determine the concentration for each.

(3) Determine a background value for each hazardous constituent that has been found at the compliance point under subitem (2), as follows:

(a) the owner or operator shall comply with subpart 11, item G, in developing the data base used to determine background values;

(b) the owner or operator shall express background values in a form necessary for the determination of

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statistically-significant-increases-under-subpart-11,-items-H and-I,-and

(c)-in-taking-samples-used-in-the determination-of-background-values,-the-owner-or-operator-shall use-a-ground-water-monitoring-system-that-complies-with-subpart 11,-items-A,-subitem-(1),-B,-and-C.

(4)-Determine-if-statistically-significant increases-in-the-ground-water-have-occurred-for-any-hazardous constituent.

(5)-Immediately-institute-a-compliance-monitoring program-as-specified-in-the-permit-and,-within-90-days,-submit to-the-agency-an-application-for-permit-modification-if-it-is necessary-to-revise-the-compliance-monitoring-program-to-meet the-requirements-of-subpart-13.--The-application-must-include the-following-information:

(a)-an-identification-of-the-concentration of-each-hazardous-constituent-found-in-the-groundwater-at-each monitoring-well-at-the-compliance-point,

(b)-proposed-changes-to-the-ground-water monitoring-system-at-the-facility-necessary-to-meet-the requirements-of-subpart-13,

(c)-proposed-changes-to-the-monitoring frequency,-sampling,-and-analysis-procedures-or-methods,-or statistical-procedures-used-at-the-facility-necessary-to-meet the-requirements-of-subpart-13,-and

(d)-for-each-hazardous-constituent-that-does not-have-a-concentration-limit-established-in-the-permit,-a proposed-concentration-limit-under-subpart-6,-items-A,-B,-or-C.

I.--If-the-owner-or-operator-determines-that-there-is a-statistically-significant-increase-of-monitoring-parameters-or hazardous-constituents-specified-under-item-A,-or-item-B, subitem-(2),-where-applicable,-at-any-monitoring-well-at-the compliance-point,-he-or-she-may-demonstrate-that-a-source-other than-a-regulated-unit-caused-the-increase-or-that-the-increase resulted-from-error-in-sampling,-analysis,-or-evaluation.--While the-owner-or-operator-may-make-a-demonstration-under-this

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~~paragraph, he or she is not relieved of the requirement to submit a permit modification application within the time specified in item H, subitem (5), or of immediately instituting the compliance monitoring program until the demonstration successfully shows that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration, the owner or operator shall:~~

~~(1) notify the commissioner in writing within seven days of determining a statistically significant increase at the compliance point that he or she intends to make a demonstration;~~

~~(2) within 90 days, submit a report to the commissioner which demonstrates that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation;~~

~~(3) within 90 days, submit to the agency an application for a permit modification to make any appropriate changes to the detection monitoring program at the facility; and~~

~~(4) continue to monitor in accordance with the compliance monitoring program established under item H, subitem (5).~~

~~J. If the owner, operator, or commissioner determines that the detection monitoring program no longer satisfies the requirements of items A to I, the owner or operator shall, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.~~

~~K. The owner or operator shall assure that monitoring and corrective action measures necessary to achieve compliance with the ground water protection standard are taken during the term of the permit.~~

F. The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter of hazardous constituent specified in the permit under item A at a frequency specified under item D.

(1) In determining whether statistically

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significant evidence of contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. These methods must compare data collected at the compliance points to the background groundwater quality data.

(2) The owner or operator must determine whether there is statistically significant evidence of contamination at each monitoring well as the compliance point within a reasonable period of time after completion of sampling. The agency shall specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of groundwater samples.

G. If the owner or operator determines under item F that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified under item A at any monitoring well at the compliance point, the owner or operator must:

(1) Notify the commissioner of this finding in writing within seven days. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination.

(2) Immediately sample the groundwater in all monitoring wells and determine whether constituents in the list of part 7045.0143 are present, and if so, in what concentration.

(3) For part 7045.0143 compounds found in the analysis under subitem (2), the owner or operator may resample within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents shall form the basis for compliance monitoring. If the owner or operator does not resample, the hazardous constituents found during this initial part 7045.0143 analysis shall form the basis for compliance monitoring.

(4) Within 90 days, submit to the commissioner an application for a permit modification to establish a compliance

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monitoring program meeting the requirements of subpart 13. The application must include the following information:

(a) an identification of the concentration or a part 7045.0143 constituent detected in the groundwater at each monitoring well at the compliance point;

(b) proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of subpart 13;

(c) proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of subpart 13; and

(d) for each hazardous constituent detected at the compliance point, a proposed concentration limit under subpart 6, item A or B, or a notice of intent to seek an alternate concentration limit under subpart 8.

(5) Within 180 days, submit to the commissioner all data necessary to justify an alternate concentration limit sought under subpart 8, and an engineering feasibility plan for a corrective action program necessary to meet the requirement of subpart 14, unless:

(a) all hazardous constituents identified under subitem (2), are listed in subpart 7 and their concentrations do not exceed the respective values given in that table; or

(b) the owner or operator has sought an alternate concentration limit under subpart 8 for every hazardous constituent identified under subitem (2).

(6) If the owner or operator determines, under item F, that there is a statistically significant difference for chemical parameters or hazardous constituents specified under item A at any monitoring well at the compliance point, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater.

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The owner or operator may make a demonstration under this paragraph in addition to, or in lieu of, submitting a permit modification application under subitem (4); however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in subitem (4) unless the demonstration made under this subitem successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration, the owner or operator shall:

(a) notify the commissioner in writing within seven days of determining statistically significant evidence of contamination at the compliance point that the owner or operator intends to make a demonstration under this subunit;

(b) within 90 days, submit a report to the commissioner which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from an error in sampling, analysis, or evaluation;

(c) within 90 days, submit to the commissioner an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

(d) continue to monitor in accordance with the detection monitoring program established under this subpart.

H. If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this subpart, the owner or operator must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

Subp. 13. **Compliance monitoring program.** An owner or operator required to establish a compliance monitoring program under this part shall perform the following:

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

~~C.--If-a-concentration-limit-is-based-on-background ground-water-quality,-the-agency-shall-specify-the-concentration limit-in-the-permit-as-described-in-subitems-(1)-and-(2).~~

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~~(1) The owner or operator shall comply with subpart 11, item G, in developing the data base used to determine background values, express background values in a form necessary for the determination of statistically significant increases under subpart 11, items H and I, and use a ground water monitoring system that complies with subpart 11, items A, subitems (2) and (3), B, and C.~~

~~(2) If a hazardous constituent is identified in subpart 7 and the difference between the respective concentration limit in subpart 7 and the background value of that constituent under subpart 11, item G, is not statistically significant, the owner or operator shall use the background value of the constituent as the concentration limit. In determining whether this difference is statistically significant, the owner or operator shall use a statistical procedure providing reasonable confidence that a real difference will be indicated. The statistical procedure must be appropriate for the distribution of the data used to establish background values and provide a reasonable balance between the probability of falsely identifying a significant difference and the probability of failing to identify a significant difference.~~

~~B. The owner or operator shall determine the concentration of hazardous constituents which have been detected in the ground water or are reasonably expected to be in or derived from the waste in the unit, in ground water at each monitoring well at the compliance point at least quarterly during the compliance period. The owner or operator shall express the concentration at each monitoring well in a form necessary for the determination of statistically significant increases under subpart 11, items H and I.~~

C. The agency shall specify the sampling procedures and statistical methods appropriate for the constituents and the facility, consistent with subpart 11, items G and H as described in subitems (1) and (2).

(1) The owner or operator must conduct a sampling program for each chemical parameter or hazardous constituent in

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accordance with subpart 11, item G.

(2) The owner or operator must record groundwater analytical data as measured and in the form necessary for the determination of statistical significance under subpart 11, item H, for the compliance period of the facility.

D. The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, under item C, at a frequency specified under item F.

(1) In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. The methods must compare data collected at the compliance points to a concentration limit developed in accordance with subpart 6.

(2) The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The agency will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities, to perform the analysis of groundwater samples.

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

~~F.--The owner or operator shall use procedures and methods for sampling and analysis that meet the requirements of subpart 11, items B and E.~~

~~G.--The owner or operator shall determine whether there is a statistically significant increase over the concentration limits for any hazardous constituents specified in the permit under item A each time he or she determines the concentration of hazardous constituents in ground water at the compliance point.~~

~~In determining whether a statistically significant increase has occurred, the owner or operator shall compare the ground water quality at each monitoring well at the compliance point~~

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~~for each hazardous constituent to the concentration limit for that hazardous constituent according to the statistical procedures specified in the permit under subpart 11, items H and I.~~

~~The owner or operator shall determine whether there has been a statistically significant increase at each monitoring well at the compliance point within the time period established in the permit.~~

F. The agency shall specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with subpart 11, item G. A sequence of at least four samples from each background and compliance well must be collected at least semiannually during the compliance period of the facility.

G. The owner or operator must analyze samples from all monitoring wells at the compliance point for all constituents contained in part 7045.0143 at least annually to determine whether additional hazardous constituents are present in the uppermost aquifer and, if so, at what concentration, according to procedures in subpart 12, item F. If the owner or operator finds part 7045.0143 constituents in the groundwater that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month and repeat the part 7045.0143 analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentration of these additional constituents to the commissioner within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then the owner or operator shall report the concentrations of these additional constituents to the commissioner within seven days after completion of the initial analysis and add them to the monitoring list.

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

I. If the owner or operator determines, under item G

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or H, that the groundwater protection standard is being exceeded at any monitoring well at the point of compliance, ~~he or she~~ the owner or operator may demonstrate that a source other than a regulated unit caused the ~~increase~~ contamination or that the ~~increase resulted from~~ detection is an artifact caused by an error in sampling, analysis, ~~or~~ statistical evaluation, or natural variation in the groundwater. Until the owner or operator makes a demonstration, ~~he or she~~ the owner or operator is not relieved of the requirement to submit a permit modification application if necessary to comply with item H within the time specified in item H, subitem (2) or of the requirement to institute corrective actions as established in item H, subitem (2). In making a demonstration, the owner or operator shall:

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

[For text of items J and K, see M.R.]

[For text of subp 14, see M.R.]

7045.0488 CLOSURE ACTIVITIES.

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

Subp. 3. **Disposal or decontamination of equipment, structures, and soils.** During the partial and final closure periods, all contaminated facility equipment, structures, and soils must be properly disposed of or decontaminated unless otherwise specified in part 7045.0528, subpart 9; 7045.0532, subpart 7; 7045.0534, subpart 7; 7045.0536, subpart 8; or 7045.0538, subpart 7, or under the authority of part 7045.0539, subparts 2 and 4. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of parts 7045.0205 to 7045.0304.

[For text of subp 4, see M.R.]

7045.0528 TANKS.

Subpart 1. Scope. This part applies to owners and operators of facilities that use tanks to treat or store

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hazardous waste, except as part 7045.0450, and items A and B provide otherwise.

A. ~~Tanks~~ Tank systems that are used to store or treat hazardous waste that contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. ~~Tanks~~ Tank systems, including sumps, as defined in part 7045.0020, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempt from the requirements in subparts 4 and 5.

[For text of subps 2 and 3, see M.R.]

Subp. 4. **Containment and detection of releases.** The following requirements apply to the containment and detection of releases from tanks:

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

H. Ancillary equipment must be provided with secondary containment, such as trench, jacketing, or double walled piping, that meets the requirements of items B and C, except for:

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

(3) sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis; and

[For text of subitem (4), see M.R.]

[For text of subps 5 to 11, see M.R.]

7045.0596 CLOSURE ACTIVITIES.

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

Subp. 3. **Disposal or decontamination of equipment, structures, and soils.** During the partial and final closure periods, all contaminated facility equipment, structures, and soils must be properly disposed of or decontaminated, unless

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otherwise specified in part 7045.0628, subpart 9; 7045.0630, subpart 6; 7045.0632, subpart 7; 7045.0634, subpart 6; or 7045.0638, subpart 4. By removing any hazardous wastes or hazardous constituents during partial or final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of parts 7045.0205 to 7045.0304.

[For text of subp 4, see M.R.]

7045.0600 POST CLOSURE.

Subpart 1. **Scope.** This part and parts 7045.0602 to 7045.0606 apply to the owners and operators of all hazardous waste disposal facilities, including surface impoundments and waste piles from which the owner or operator intends to remove the wastes at closure, to the extent that the owner or operator is required to provide post closure care in part 7045.0630, subpart 6, or in part 7045.0632, subpart 7, and also tank systems that are required under part 7045.0628, subpart 9, to meet the requirements for landfills, except as provided otherwise in part 7045.0552.

[For text of subps 2 and 3, see M.R.]

7045.0628 TANKS.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that use tanks to treat or store hazardous waste, except as items A and B and part 7045.0552 provide otherwise.

A. ~~Tanks~~ Tank systems that are used to store or treat hazardous waste containing no free liquids and that are located inside a building with an impermeable floor are exempt from the requirements of subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. ~~Tanks~~ Tank systems, including sumps, as defined in part 7045.0020 that serve as part of a secondary containment

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system to collect or contain releases of hazardous wastes are exempted from the requirements in subparts 4 and 5.

[For text of subps 2 and 3, see M.R.]

Subp. 4. **Containment and detection of releases.**

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

H. Ancillary equipment must be provided with full secondary containment, such as trench, jacketing, or double walled piping, that meets the requirements of items B and C, except for:

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

(3) sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

[For text of subitem (4), see M.R.]

[For text of subps 5 to 12, see M.R.]

7045.0629 REQUIREMENTS FOR SMALL QUANTITY GENERATORS THAT ACCUMULATE HAZARDOUS WASTE IN TANKS.

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

Subp. 3. **Inspections.** Small quantity generators must inspect, where present:

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

C. the level of waste in the tank at least once each operating day to ensure compliance with subpart ~~3~~ 2, item C;

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

[For text of subps 4 to 6, see M.R.]

7100.0335 CERTIFICATE OF EXEMPTION REQUIRED.

Subpart 1. **Certification of exemption required.** Except as provided in subpart 2, no person may use, possess, sell, purchase, or manufacture PCB, a product containing PCB, or a class of products containing PCB without obtaining a certificate of exemption from the agency.

Subp. 2. **Exclusions.** The requirement to obtain a certification of exemption does not apply to the following uses or products:

A. any product containing PCB that was purchased or

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otherwise acquired by an individual person for consumer use in the home;

B. wastepaper, pulp, or other wood fiber materials purchased for use within this state in the manufacture of recycled paper products; and

C. any electrical ballast, capacitor, or transformer that contains less than one kilogram of PCB.

Subp. 3. **Certification of exemption by rule.** Any person who is required to obtain a certificate of exemption shall be considered to have obtained a certification of exemption without making application for it, if:

A. the person complies with the manufacturing, processing, distribution, use, disposal, storage, and labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761;

B. the person's eligibility to obtain or maintain a certification of exemption by rule has not been terminated under subpart 4; and

C. the person submits a written notification to the commissioner that explains the PCB activities the person will be conducting that require a certification of exemption.

The notification requirement in item C does not apply to a person who was issued a certification of exemption under part 7100.0340 and then had the certification of exemption terminated under part 7100.0340, subpart 21, item A.

Subp. 4. **Termination of eligibility for certification of exemption by rule.** The eligibility of a person to receive or maintain a certification of exemption by rule under subpart 3 is subject to termination by the agency after notice and opportunity for a public informational meeting or a contested case hearing if the agency makes any of the findings in items A to C. A person whose eligibility to be exempted by rule under subpart 3 has been terminated shall apply for and obtain an individual certification of exemption under these parts. The following findings constitute justification for the commissioner to commence proceedings to terminate eligibility:

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A. that the person does not comply with the manufacturing, processing, distribution, use, disposal, storage, and labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761;

B. that the person is conducting other activities that are not regulated under the federal PCB program in Code of Federal Regulations, title 40, part 761, and are required to be covered by a certification of exemption; and

C. that under the circumstances, in order to protect human health or the environment, the person should be subject to the requirement to obtain an individual certification of exemption under these parts.

7100.0340 CERTIFICATE OF EXEMPTION.

[For text of subps 1 to 20, see M.R.]

Subp. 21. **Termination of certification of exemption.** A certificate of exemption is terminated and the terms and conditions of the certificate of exemption are no longer in force or effect under the following circumstances:

A. the person issued the certificate of exemption meets the requirements for a certification of exemption by rule in part 7100.0335, subpart 3; or

B. the person issued the certificate of exemption no longer uses, possesses, sells, purchases, or manufactures PCB, a product containing PCB, or a class of products containing PCB and has submitted a written notification to the commissioner stating this fact.

A person described in item B shall submit written notification to the commissioner within 30 days of stopping PCB activities that require a certificate of exemption.

7100.0350 LABELS.

~~Subpart 1. Requirement.~~ Any person ~~after July 1, 1977, who adds PCB in the manufacture of any new item, product, or material or any person~~ in this state who sells any new item, product, or material ~~to~~ which contains PCB ~~has been added~~ shall ~~conspicuously label the PCB or product containing PCB~~ comply

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with all of the labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761. The above labeling requirements do not apply to the uses or products excluded in part 7100.0335, subpart 2.

~~A.--The label shall disclose the following:~~

~~(1) the presence of PCB in the item, product, or material;~~

~~(2) the item, product, or material contains a concentration of PCB equal to or greater than 500 milligrams per kilogram (mg/kg);~~

~~(3) a statement regarding proper disposal; and~~

~~(4) a warning regarding potential environmental and public health hazards of PCB.~~

~~B.--The label shall be written and affixed to the item, product, or material so that a reasonable person ought to have noticed it.~~

~~C.--The following statement may be used to satisfy the requirements of item A:~~

~~WARNING:--Contains a concentration of polychlorinated biphenyl (PCB) equal to or greater than 500 mg/kg. Severe environmental contaminant.--Care should be taken to prevent entry into the environment through spills, leakage, use, vaporization, or disposal of liquid or containers.--Avoid prolonged breathing of vapors or mists, contact with eyes, or prolonged contact with skin.--This item must be used and disposed of in accordance with state and federal statutes and regulations.~~

REPEALER. Minnesota Rules, part 7100.0360, is repealed.

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116J.37 (216C.37

The commissioner shall adopt rules necessary to implement this sect.

~~comment period terminated Nov 11, 198~~

Comment period ended Oct 10, 1990 } 30 days
published Sept 10, 1990 }

STATE OF MINNESOTA

OFFICE OF THE ATTORNEY GENERAL

HUBERT H. HUMPHREY, III
ATTORNEY GENERAL

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

November 26, 1990

Ms. Christie Eller
Assistant Attorney General
Office of the Attorney General
525 Park Street, Suite 500
St. Paul, Minnesota 55155

Re: In the Matter of the Proposed Amendments of Rules Governing the Management of Hazardous Waste and Polychlorinated Biphenyls, Minn. Rules Chs. 7001, 7045, and 7100.

Dear Ms. Eller:

On October 23, 1990, the Minnesota Pollution Control Agency adopted the above-captioned rule amendments governing the management of hazardous wastes and PCB's. Enclosed for your review are the following:

1. Notice of Intent to Solicit Outside Opinion (14 S.R. 662, September 11, 1989).

2. Affidavit of no written comments received pursuant to Notice of Intent to Solicit Outside Opinion (January 9, 1990).

3. Certificate of Agency's Authorizing Resolution (May 2, 1990).

4. Rules as proposed with Revisor's certificate.

5. Notice of Intent to Adopt Rule Amendments without a Public Hearing, as mailed (August 29, 1990).

6. Affidavit of Mailing the Notice of Intent to Adopt Rule Amendments Without a Public Hearing and Certificate of Mailing List. (The Affidavit is dated November 5, 1990; the actual mailing of the Notice was September 7, 1990.)

7. Statement of Need and Reasonableness

8. Notice of Intent to Adopt Rule Amendments without a Public Hearing and Rules as proposed, as published in the State Register (15 S.R. 610-612, September 10, 1990).

9. Comments received during the comment period.

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

11. Certificate of Resolution Adopting Rules (October 23, 1990).

12. Findings of Fact, Conclusions of Law, and Order Adopting Rules (October 23, 1990) (two copies).

13. Affidavit of Receiving No Requests for Notification of Submission of Rules Adopted without Public Hearing to the Attorney Subsequent to Second Notice (November 5, 1990).

14. Declaration of Counsel

I need to clarify a procedural point for you. The Agency originally noticed this rulemaking proceeding on May 21, 1990. On July 25, 1990, the Agency actually adopted final amendments. Subsequently, however, it was determined by the Agency that perhaps not everybody on the Agency's rulemaking list was mailed a copy of the Notice of Intent to Adopt Rules without a Public Hearing. Rather than risk a procedural defect, the Agency determined to renotice the proceeding and begin the comment period all over again. The Notice published in the State Register on September 10, 1990, was actually the second notice that was published and mailed out. Now, the Agency is assured that everybody on its rulemaking list was given notice of this rulemaking proceeding.

During the first rulemaking proceeding the Agency received one request to be notified when the rule amendments were submitted to the Attorney General's Office. I have enclosed the following documents showing that the Agency satisfied the requirement to notify that person that these rule amendments are being submitted to you.

15. Affidavit of Receiving Only One Request for Notification of Submission of Rules Adopted without Public Hearing to the Attorney General (August 20, 1990).

16. Notice of Submission of Rule Adopted without Public Hearing to the Attorney General.

17. Affidavit of Mailing Notice of Submission of Rules Adopted without Public Hearing to the Attorney General.

I have also enclosed for your information copies of other documents relating to the first rule proceeding, although these

documents are not pertinent to proper adoption of the rules based on the second proceeding. I have bound these documents together as Number 18 in the packet.

I hope that this discussion about renoticing is helpful to you. If you have any questions, please give me a call at 296-7200.

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

Very truly yours,

Alan R. Mitchell

ALAN R. MITCHELL
Special Assistant
Attorney General

Environmental Protection
Division

ARM:jlm:AK8
Enclosures
cc: Nathan Cooley, MPCA

Oral statements will be received during regular business hours, 8:00 a.m. to 4:30 p.m., Monday through Friday.

All statements of information and opinion will be accepted until October 11, 1989. Any written materials received by the MPCA shall become part of the rulemaking record in the event that the rule is amended.

Gerald L. Willet
Commissioner

Minnesota Pollution Control Agency

Division of Ground Water and Solid Waste

Notice of Intent to Solicit Outside Information Regarding Proposed Rule Governing Infectious Waste Management

NOTICE IS HEREBY GIVEN that the Minnesota Pollution Control Agency (MPCA) is seeking information or opinions from outside sources in preparing to propose the adoption of rules governing Infectious Waste Management. The adoption of the rule is authorized by *Minnesota Statutes* § 115.75 through 116.83 (1989), which allows the MPCA to adopt rules governing the implementation of the Infectious and Pathological Waste Control Act.

The MPCA requests information and opinions concerning the subject matter of the rule. Interested persons or groups may submit data or views in writing or orally. Written or oral statements or comments should be directed to:

Julie Marien Ketchum
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155
Telephone: 612/296-7388

Oral statements will be received during regular business hours, 7:30 a.m. to 3:30 p.m., Monday through Friday.

All statements of information and opinion will be accepted until November 1, 1989. Any written materials received by the MPCA shall become part of the rulemaking record in the event that the rule is adopted.

Gerald L. Willet
Commissioner

Pollution Control Agency

Division of Hazardous Waste

Notice of Intent to Solicit Outside Information Regarding Proposed Amendments to *Minnesota Rules* Chapters 7001, 7045, and 7100 Governing the Management of Hazardous Waste and Polychlorinated Biphenyls

NOTICE IS HEREBY GIVEN that the Minnesota Pollution Control Agency (MPCA) is seeking information or opinions from outside sources in preparing to propose the amendment of rules governing the management of hazardous waste and polychlorinated biphenyls (PCB). Specifically, the MPCA is considering proposing amendments regarding the following:

1. Permit modification procedures for hazardous waste facilities. The amendments would provide for an expedited process for modifying hazardous waste permits when permit modifications are requested by the permittee.

2. Liability coverage for hazardous waste facilities. The amendments would allow owners or operators of hazardous waste facilities to use additional financial assurance mechanisms for liability coverage. Additional mechanisms being considered are: a letter of credit; a surety bond assuring payment of liability claims; a fully-funded trust fund; and a guarantee provided by a firm that is not the direct parent of the owner or operator.

3. A clarification to the existing language governing test burn information requirements for the modification of existing hazardous waste incinerator permits. The amendments would clarify that in the event a test burn is conducted for modifications at an existing incineration facility, the owner or operator must submit the trial burn results prior to permit issuance not after permit issuance.

4. Technical corrections to the existing standards for hazardous waste tank systems. These technical corrections would clarify the language of the existing standards for hazardous waste tank systems in order to provide for the original intent of the standards.

5. Minnesota's PCB program. The MPCA will be considering amendments to the state PCB certification of exemption program based on an analysis of the effectiveness of the existing program.

The MPCA is considering the amendments governing permit modification procedures, liability coverage, test burn information requirements, and hazardous waste tank systems in response to amendments to the federal hazardous waste regulations promulgated by the U.S. Environmental Protection Agency on September 28, 1988 and March 7, 1989, September 1, 1988, January 30, 1989, and September 2, 1988, respectively. Amendments governing Minnesota's PCB program are being considered based on the MPCA's analysis of the effectiveness of the current PCB program. The amendment of the rules is authorized by *Minnesota Statutes* §§ 116.07, subd. 4 and 116.37 (1988).

The MPCA requests information and opinions concerning the subject matter of the rule. Interested persons or groups may submit data or views in writing or orally. Written or oral statements should be directed to:

Patrick Carey
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155
Telephone: 612/296-7767

Oral statements will be received during regular business hours, 8:00 a.m. to 4:30 p.m., Monday through Friday.

All statements of information and opinion will be accepted until October 11, 1989. Any written materials received by the MPCA shall become part of the rulemaking record in the event that the rule is amended.

Gerald L. Willet
Commissioner

State Planning Agency

Environmental Quality Board

Outside Opinion Sought on Rules Governing Environmental Review

NOTICE IS HEREBY GIVEN that the Environmental Quality Board (Board) is seeking information or opinions from sources outside the agency in preparing to propose the amendment of the rules governing environmental review. The Board is considering amending a section of the existing environmental review rules, in accordance with its responsibility to monitor the rules and to take appropriate measures to improve their effectiveness under *Minnesota Rules* pt. 4410.0400 subp. 1. The adoption to the rules is authorized by *Minnesota Statutes* section 116D.04.

The Board requests information and comments concerning only *Minnesota Rules* part 4410.7000. The board is proposing an amendment to this rule to reflect a 1989 statutory amendment in the Power Plan Siting Act. That amendment (*Minnesota Statutes*, section 116C.57, subd. 5a) provides for an exemption from the power plant siting process for large electric power generating plants with a capacity of between 50 and 80 megawatts. The proposed change in the environmental review rules is needed to permit the exemption process in the power plant siting rules to constitute alternative environmental review. The board is concurrently soliciting opinions on the associated amendments of the power plant siting rules through a separate notice in this issue of the *State Register*.

Interested or affected persons or groups may submit data or views on the subject matter of concern either orally or in writing. Written statements should be addressed to:

Bob Cupit
Minnesota Environmental Quality Board
300 Centennial Office Building
658 Cedar Street
St. Paul, MN 55155

Oral statements will be received during regular business hours over the telephone at (612) 296-2096 and in person at the above address.

All statements of information and comment will be accepted through October 11, 1989. Any written material received by the Board will become part of the rulemaking record to be submitted to the attorney general or administrative law judge in the event that amendments are adopted.

The board maintains a list of all persons who have registered with the board for the purpose of receiving notice of rule hearings. Anyone interested in being placed on this list should contact Mr. Cupit.

Exhibit No. 1

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management Of Hazardous Waste and Governing Polychlorinated Biphenyls, Minn. Rules Chs. 7001, 7045, and 7100

AFFIDAVIT OF MAILING THE NOTICE OF INTENT TO ADOPT RULE WITHOUT A PUBLIC HEARING AND CERTIFICATE OF MAILING LIST

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Nathan B. Cooley, being duly sworn says:

I hereby certify that the list of persons and associations who have requested, pursuant to Minn. Stat. §§ 14.14, subd. 1a and 14.22 (1988), that their names be placed on the Minnesota Pollution Control Agency's rulemaking mailing list is accurate, complete, and current as of this 7th day of September, 1990.

That on the 7th day of September, 1990, at the City of St. Paul, County of Ramsey, State of Minnesota, I mailed the attached Notice of Intent to Adopt Rules Without a Public Hearing, by depositing in the State of Minnesota Central Mail System for first class mailing a copy thereof with postage prepaid, to all persons and associations on the aforementioned mailing list.

Nathan B. Cooley

Subscribed and sworn to before me
this 5 day of November, 1990.

Ardith M. Vos
Notary Public

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

Exhibit No. 6

Mr. Robert Ratchison
Anoka County Health Department
County Courthouse - 4th Floor
325 East Main Street
Anoka, Minnesota 55303

Mr. Michael Shotliff
Carver County Courthouse
600 East 4th Street
Chaska, Minnesota 55318

Mr. George Kinney
Dakota County Community
Health Sevices
33 East Wentworth, Suite 101
West St. Paul, Minnesota 55118

Mr. Greg Lie
Hennepin County Department
of Environment and Energy
822 South Third Street, #300
Minneapolis, Minnesota 55415

Mr. Lee Holden
Ramsey County Division of
Environmental Health
1910 West County Road B, #209
Roseville, Minnesota 55113

Mr. Al Frechette
Scott County Environmental
Health Specialist
Scott County Courthouse
Shakopee, Minnesota 55379

Mr. Peter Schmidt
Scott County Environmental
Health Specialist
Scott County Courthouse
Shakopee, Minnesota 55379

Mr. Tom Dellenbach
Washington Co Comm Health Serv
14900 North 61st Street
P.O. Box 6
Stillwater, Minnesota 55082

MICA Environmental Committee
Metropolitan Inter-Co. Assoc.
33 Wentworth Avenue, Suite 300
West St. Paul, Minnesota 55118
Attn: Robert Orth

Minnesota Chamber of Commerce
480 Cedar Street
300 Hanover Building
St. Paul, Minnesota 55101
Attn: Winston Borden

Ms. Donna Peterson
MnTAP
University of Minnesota
Box 197 Mayo
1 South Pinckney Street
Madison, WI 53701-1497

RULEMAKING AFFECTED PARTY

Mr. Michael J. Ahern
Moss & Barnett
4800 Norwest Center
90 South Seventh Street
Minneapolis, MN 55402-4119

Mr. Stewart C. Allen
Wilbur-Ellis Company
191 West Shaw Avenue
Suite 107
Fresno, CA 93704

Mr. Donald Anderson
Oil Services, Inc.
13808-293rd Avenue
Zimmerman, MN 55398

Mr. Jeffrey Anderson
Blooming Prairie
4644 IDS Center
80 South Eighth Street
Minneapolis, MN 55402

Mr. Mark Axford
Route 2, Box 147
Annandale, MN 55302

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

Ms. Annette Bair
SW Regional Committee
2524 Broadway Avenue
P.O. Box 265
Slayton, MN 56172

Ms. Marian J. Barnes
Groundwater Technology, Inc.
2113 Stonington Avenue
Hoffman Estates, IL 60195

Mr. David A. Becker
Kolstad Company, Inc.
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STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste and Poly Chlorinated Biphenyls, Minn. Rules Chs. 7001, 7045, and 7100

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

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

PATRICK F. CAREY, being duly sworn on oath deposes and says:

1. That he is the person named in the Notice of Intent to Solicit Outside Opinion (14 SR 662, September 11, 1989) as the person to receive comments on the Minnesota Pollution Control Agency's intent to adopt rule amendments concerning the above-entitled matter.

2. That the comment period set forth in the notice terminated at 4:30 p.m. on November 11, 1989.

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

Pat F. Carey

Subscribed and sworn to before me this 9 day of January, 1990.

Ardith M. Vos
Notary Public

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

Exhibit No. 2

Ex. #5

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste and Poly Chlorinated Biphenyls, Minn. Rules Chs. 7001, 7045, and 7100

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

STATE OF MINNESOTA)
) ss.
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Pat F. Carey

Subscribed and sworn to before me this 9 day of January, 1990.

Ardith M. Vos
Notary Public

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

CERTIFICATE OF AGENCY'S AUTHORIZING RESOLUTION

I, Gerald Willet, do hereby certify that I am the Commissioner of the Minnesota Pollution Control Agency, an agency duly authorized under the laws of the State of Minnesota, and that the following is a true, complete, and correct copy of a resolution adopted at a meeting of the Minnesota Pollution Control Agency duly and properly called and held on the twenty-forth day of April, 1990, that a quorum was present at said meeting, that a majority of those present voted for the resolution, and that said resolution will be set forth in the minutes of said meeting and has not been rescinded or modified:

BE IT RESOLVED, that the Commisioner of the Minnesota Pollution Control Agency is hereby granted the authority to sign and to give notice of the Minnesota Pollution Control Agency's intent to adopt, without a public hearing, the attached amendments to the Minnesota Pollution Control Agency's permit rules, rules governing the management of hazardous waste, and rules governing polychlorinated biphenyls, Minn. Rules pts. 7001.0700, 7045.0020, 7045.0120, 7045.0135, 7045.0139, 7045.0141, 7045.0213, 7045.0484, 7045.0488, 7045.0528, 7045.0596, 7045.0600, 7045.0628, 7045.0629, 7100.0335, 7100.0340, 7100.0350, and 7100.0360, to all persons who have registered their names with the Minnesota Pollution Control Agency for that purpose and publish the notice and the rule amendments in the State Register, and to perform any acts incidental thereto, including making any form changes in the rule amendments that the Revisor of Statutes requires the Minnesota Pollution Control Agency to make in order to obtain the Revisor's certification as required by Minn. Stat. § 14.07, subd. 2 (1988).

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

IN WITNESS WHEREOF, I have hereunto subscribed my name this 2 day of May, 1990.

Gerald L. Willet
Gerald L. Willet
Commissioner

Exhibit No. 3

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

**Proposed Permanent Rules
Relating to Hazardous Waste
and Polychlorinated Biphenyls
Minnesota Rules chs. 7001, 7045, and 7100**

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

(1) Notice is hereby given that the Minnesota Pollution Control Agency (MPCA) intends to adopt the above-entitled rule amendments without a public hearing following the procedures set forth in the Administrative Procedure Act in Minnesota Statute §§ 14.22 to 14.28 (1988). The MPCA's authority to adopt the rule amendments is set forth in Minnesota Statute §§ 116.07, subd. 4 and 116.37 (1988).

This is the second notice provided by the Agency regarding the proposed adoption of these amendments. The first notice was published in the State Register on May 21, 1990 (14 S.R. 2695). The Agency is re-noticing these proposed amendments to ensure that all persons who registered their names with the Agency to receive hazardous waste rulemaking notices are given notice of this rulemaking proceeding. The Agency is concerned that some persons who registered their names were not given notice of these proposed amendments when the notice was mailed out last May. The Agency has also proposed some minor changes in the proposed language. These minor changes are published in the State Register. The remainder of the proposed amendments are the same as those proposed last May. Copies of last May's notice can be obtained from county libraries or from the Minnesota Bookstore (telephone 612/297-3000).

(2) All persons have until 4:30 p.m. on October 10, 1990 to submit comments in support of or in opposition to the proposed rule amendments or any part or subpart of the rules. Comment is encouraged. (3) Each comment should identify the portion of the proposed rule amendments addressed, the reason for the comment, and any change proposed.

(4) Any person may make a written request for a public hearing on the proposed rule amendments within the comment period. (4) If 25 or more persons submit a written request for a public hearing within the comment period, a public hearing will be held, unless a sufficient number withdraw their requests in writing. (6) Any person requesting a public hearing must state his or her name and address, and is encouraged to identify the portion of the proposed rule amendments addressed, the reason for the request, and any change proposed. (7) If a public hearing is required, the MPCA will proceed pursuant to Minnesota Statute §§ 14.131 to 14.20 (1988).

(5) Comments or written requests for a public hearing must be submitted to Nathan B. Cooley, Hazardous Waste Division, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, MN 55155 (telephone 612/643-3477).

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

(11) The MPCA proposes in this rulemaking to adopt seven federal amendments pertaining to various portions of existing Minnesota Rules chs. 7001 and 7045 which govern management of hazardous wastes. It also proposes amending existing Minnesota Rules ch. 7100 governing certificates of exemption for the management of polychlorinated biphenyls.

Exhibit No. 5

The seven federal amendments were promulgated by the U.S. Environmental Protection Agency to correct and clarify existing regulations which govern the following: storage and treatment tank system standards, delisting of iron dextran, delisting of strontium sulfide, relisting of certain metal smelting wastes, statistical methods for ground water monitoring data, farmers' exemptions, and trial burn information requirements for the modification of existing hazardous waste thermal treatment permits. The MPCA proposes to adopt these federal amendments without substantial change in order to provide equivalent state rules and in order to retain federal authorization to administer its hazardous waste program.

The state initiated amendments to rules governing certificates of exemption serve to reduce the burden and the potential confusion from rules which have become duplicative due to changes in the corresponding federal regulations. These amendments provide a process wherein persons may obtain a state certificate of exemption by rule under certain circumstances.

(12) A Statement of Need and Reasonableness which describes the need for and reasonableness of each provision of the proposed rule amendments has been prepared and is available upon request at the above address.

(14) You are hereby advised, pursuant to Minnesota Statute § 14.115 (1988), "Small Business Considerations in Rulemakings," that the economic effect of these proposed amendments on small businesses is anticipated to be either neutral or beneficial. Adopting the federal amendments governing the management of hazardous waste will correct and clarify existing rules. The only apparent increase in regulatory burden results from the federal relisting of certain metal smelting wastes. While the MPCA is required to relist these wastes in order to retain its authorization to administer its hazardous waste program, it does not believe that any businesses in Minnesota will be affected by this relisting. The state amendments governing certificates of exemption reduce duplicative requirements. The anticipated effect of this rulemaking is to save time and effort for the regulated community. This rulemaking amends existing rules. No substantive economic effects are anticipated for Minnesota businesses of any size due to these proposed amendments.

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

Dated: 8-29-90

Barbara Lindsey Sims
for Gerald L. Willet
Commissioner

CERTIFICATE OF RESOLUTION ADOPTING RULES

I, Gerald L. Willet, do hereby certify that I am the Commissioner of the Minnesota Pollution Control Agency, an agency duly authorized under the laws of the State of Minnesota, and that the following is a true, complete, and correct copy of a resolution adopted at a meeting of the Minnesota Pollution Control Agency duly and properly called and held on the twenty-third day of October 1990, that a quorum was present at said meeting, that a majority of those present voted for the resolution and that said resolution will be set forth in the minutes of said meeting and has not been rescinded or modified:

BE IT RESOLVED, that the Minnesota Pollution Control Agency hereby rescinds its July 24, 1990, approval and adoption of the following amendments to its rules governing the management of hazardous waste and polychlorinated biphenyls, Minn. Rules pts. 7001.0700, 7045.0020, 7045.0120, 7045.0135, 7045.0139, 7045.0141, 7045.0213, 7045.0484, 7045.0488, 7045.0528, 7045.0596, 7045.0600, 7045.0628, 7045.0629, 7100.0335, 7100.0340, 7100.0350, and 7100.0360, which it adopted and approved pursuant to its authority under Minn. Stat. § 116.07, subd. 4 (1988).

BE IT FURTHER RESOLVED, that the Minnesota Pollution Control Agency hereby approves and adopts the attached amendments to the Minnesota Pollution Control Agency's permit rules, rules governing the management of hazardous waste, and rules governing polychlorinated biphenyls, Minn. Rules pts. 7001.0700, 7045.0020, 7045.0120, 7045.0135, 7045.0139, 7045.0141, 7045.0213, 7045.0484, 7045.0488, 7045.0528, 7045.0596, 7045.0600, 7045.0628, 7045.0629, 7100.0335, 7100.0340, 7100.0350, and 7100.0360, pursuant to the authority vested in the Minnesota Pollution Control Agency by Minn. Stat. § 116.07, subd. 4 (1988).

BE IT FURTHER RESOLVED, that prior to publishing the rules as adopted in the State Register, the Commissioner is authorized to make any form changes to the rules that the Revisor of Statutes requires the Minnesota Pollution Control Agency to make in order to obtain the Revisor's Certification as required by Minn. Stat. § 14.07, subd. 2 (1988).

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

IN WITNESS WHEREOF, I have hereunto subscribed my name this 23 day of October, 1990.

Gerald L. Willet

Gerald L. Willet
Commissioner

Exhibit No. 11

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management Of Hazardous Waste and Governing Polychlorinated Biphenyls, Minn. Rules Chs. 7001, 7045, and 7100

AFFIDAVIT OF MAILING THE NOTICE OF INTENT TO ADOPT RULE WITHOUT A PUBLIC HEARING AND CERTIFICATE OF MAILING LIST

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Nathan B. Cooley, being duly sworn says:

I hereby certify that the list of persons and associations who have requested, pursuant to Minn. Stat. §§ 14.14, subd. 1a and 14.22 (1988) that their names be placed on the Minnesota Pollution Control Agency's rulemaking mailing list is accurate, complete, and current as of this 17th day of May, 1990.

That on the 17th day of May, 1990, at the City of St. Paul, County of Ramsey, State of Minnesota, I mailed the attached Notice of Intent to Adopt Rules Without a Public Hearing by depositing in the State of Minnesota Central Mail System or in the United States mail for first class mailing a copy thereof, with postage prepaid, to all persons and associations on the aforementioned mailing list.

Nathan Cooley

Subscribed and sworn to before me
this 17 day of May, 1990.

Diane Fox
Notary Public

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

Minnesota Pollution Control Agency

SIGNATURE MEMO

Mailed May 17 1990
Originated: to coincide w/900521 notice in SR

___ Air Quality Division
___ Ground Water/Solid Waste Div.
X Hazardous Waste Division
___ Water Quality Division
___ Administration/_____

DATE 5/1/90

TO:	INITIAL	DATE	DATE
Carol Mankivel, Supr.	CRM	5/2/90	
Sharon Meyer, chief	SCM	5/2	
Rich Sivanda	RAS	5/2	
Gerald L. Willet, Cmr	See signed document NBC	900510	
FROM: N. Cooley			

(AUTHOR)

bcc: _____

RETURN TO: N. Cooley NBC

(SECTION)

IDENTIFICATION NUMBER: _____/_____

DATE DUE:

COMMENTS: Need to deliver to State Register by 5/7/90 (Monday)

PQ-00385-03 (12/87) printed on recycled paper

FILE: _____

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste and Governing Polychlorinated Biphenyls, Minn. Rules Chs. 7001, 7045, and 7100

NOTICE OF INTENT TO ADOPT RULES WITHOUT A PUBLIC HEARING

Notice is hereby given that the Minnesota Pollution Control Agency (MPCA) intends to adopt the above-entitled rule amendments without a public hearing following the procedures set forth in the Administrative Procedure Act for adopting rule amendments without a public hearing in Minn. Stat. §§ 14.22 to 14.28 (1988). The MPCA's authority to adopt the rule amendments is set forth in Minn. Stat. §§ 116.07, subd. 4 and 116.37 (1988).

All persons have until 4:30 p.m. on June 21, 1990 to submit comments in support of or in opposition to the proposed rule amendments or any part or subpart of the rules. Comment is encouraged. Each comment should identify the portion of the proposed rule amendments addressed, the reason for the comment, and any change proposed.

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

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

Nathan B. Cooley
Hazardous Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155
612/643-3477

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

The MPCA proposes in this rulemaking to adopt seven federal amendments pertaining to various portions of existing Minn. Rules chs. 7001 and 7045 which govern management of hazardous wastes. It also proposes amending existing Minn. Rules ch. 7100 governing certificates of exemption for the management of polychlorinated biphenyls.

The seven federal amendments were promulgated by the U.S. Environmental Protection Agency to correct and clarify existing regulations which govern the following: storage and treatment tank system standards, delisting of iron

dextran, delisting of strontium sulfide, relisting of certain metal smelting wastes, statistical methods for ground water monitoring data, farmers' exemptions, and trial burn information requirements for the modification of existing hazardous waste thermal treatment permits. The MPCA proposes to adopt these federal amendments without substantial change in order to provide equivalent state rules and in order to retain federal authorization to administer its hazardous waste program.

The state initiated amendments to rules governing certificates of exemption serve to reduce the burden and the potential confusion from rules which have become duplicative due to changes in the corresponding federal regulations. These amendments provide a process wherein persons may obtain a state certificate of exemption by rule under certain circumstances. One free copy of the rules is available upon request at the above address.

A Statement of Need and Reasonableness which describes the need for and reasonableness of each provision of the proposed rule amendments has been prepared and is available upon request at the above address.

You are hereby advised, pursuant to Minn. Stat. § 14.115 (1988), "Small Business Considerations in Rulemakings," that the economic effect of these proposed amendments on small businesses is anticipated to be either neutral or beneficial. Adopting the federal amendments governing the management of hazardous waste will correct and clarify existing rules. The only apparent increase in regulatory burden results from the federal relisting of certain metal smelting wastes. While the MPCA is required to relist these wastes in order to retain its authorization to administer its hazardous waste program, it does not believe that any businesses in Minnesota will be affected by this relisting. The state amendments governing certificates of exemption reduce duplicative requirements. The anticipated effect of this rulemaking is to save time and effort for the regulated community. This rulemaking amends existing rules. No substantive economic effects are anticipated for Minnesota businesses of any size due to these proposed amendments.

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

Dated: May 10, 1990

Barbara Lindsey Sims for
Gerald L. Willet
Commissioner

oss & Barnett
800 Norwest Center
0 South Seventh Street
inneapolis, MN 55402-4119

r. Stewart C. Allen
ilbur-Ellis Company
91 West Shaw Avenue
uite 107
resno, CA 93704

r. Donald Anderson
il Services, Inc.
3808-293rd Avenue
immerman, MN 55398

r. Jeffrey Anderson
looming Prairie
644 IDS Center
0 South Eighth Street
inneapolis, MN 55402

r. Mark Axford
oute 2, Box 147
nnandale, MN 55302

s. Christine Babka
PG Industries, Inc.
60 Kappa Drive
ittsburgh, PA 15238

s. Annette Bair
W Regional Committee
524 Broadway Avenue
.O. Box 265
layton, MN 56172

s. Marian J. Barnes
roundwater Technology, Inc.
113 Stonington Avenue
offman Estates, IL 60195

r. David A. Becker
olstad Company, Inc.
507 Walnut Street
t. Paul, MN 55113

Becker Hiway Plate
Route 5, Box 10 B
Albert Lea, MN 56007

Mr. Conrad Berg
3636 Lakeside Drive
Eveleth, MN 55734

D. J. Berg
D. J. Berg-Consulting Serv.
P.O. Box 12082
New Brighton, MN 55112

Mr. Edward Besaw
Fiberite Corporation
501 West 3rd Street
P.O. Box 468
Winona, MN 55987

Mr. William Bider
Trans World Airlines
Room 1-482 MCI
P.O. Box 20126
Kansas City, MO 64195

Mr. David Bonistall
Champion International
100 East Sartell Street
P.O. Box 338
Sartell, MN 56377

Mr. David Brickley
Circuit Chemistry
5129 Industrial Street
P.O. Box 476
Maple Plain, MN 55359

Ms. Patricia Bursay IO
Minnesota Department of
Transportation
704 Transportation Bldg
St. Paul, MN 55155

Mr. Tim Butler
Lindquist & Vennum
4200 IDS
80 South 8th Street
Minneapolis, MN 55402

McLaughlin Gormley King Co.
8810 Tenth Avenue North
Minneapolis, MN 55427

Mr. David Cera IO
MPCA-Office of Waste Mgmt.
1350 Energy Lane
St. Paul, MN 55108

Mr. Gary Christiansen
Minnesota Department of
Transportation, District 9
3485 Hadley Avenue North
Oakdale, MN 55109

J.C. Clasing
Amoco Corporation
200 East Randolph Drive
MC 1604
Chicago, Illinois 60601

Mr. Robert Clough
Northern States Power Co.
414 Nicollet Mall
Minneapolis, MN 55401

Mr. Richard Clute
WCI Freezer Division
701 33rd Avenue North
St. Cloud, MN 56303

Ms. Ann Cole
B/R Instrument Corp.
12861 Hamlet Avenue
Apple Valley, MN 55124

Mr. Michael Costello
IT Corporation
4190 North Lexington
St Paul, MN 55126

Mr. Gene Currie
Imperial Inc.
1102 West 6th Avenue
P.O. Box 98
Shenandoah, IA 51601

HW RULE AMENDMENTS

Interested

Circuit Chemistry Corp.
5129 Industrial Street
Maple Plain, MN 55359

Etchit Inc.
643-13th Avenue South
Hopkins, MN 55343

1720 South Broadway
New Ulm, Minnesota 56073

James & Moore
1900 Silver Lake Road
Suite 302
New Brighton, MN 55112

Mr. Todd Dykton
Envirite Corporation
16435 South Center Ave.
Harvey, IL 60426

W. L. Fuerstenberg
Interstate Power Company
129 North St. Paul Avenue
P.O. Box 246
Fulda, MN 56131

Mr. Luke Davich
Federal-Hoffman, Inc.
900 Ehlen Drive
Anoka, MN 55303

Mr. Tom Eley
Great Lakes Env. Services
22077 Mound Road
Warren, Michigan 48091

Mr. Douglas Fullen
(MN29-3610)
Honeywell
Building 103, TCAAP
New Brighton, MN 55112

Mr. William DeBelly
Southern Minnesota Sugar
Cooperative
P.O. Box 500
Renville, MN 56284

Mr. Brian Ettesvold
MSSA/MTOA
1705 Marion Street
St. Paul, MN 55113

Mr. James Gencauski
Waste Management-Blaine
10050 Naples Street NE
Blaine, MN 55434

Ms. Katie DeBoer IO
Legislative Commission
on Waste Management
85 State Office Bldg.
St. Paul, MN 55155

Mr. John T. Fakler
Circuit Chemistry Corp.
5129 Industrial Street
Maple Plain, MN 55359

Mr. John Goslinga
Wespling Manufacturer
705 Highway 18 South
Princeton, Minnesota 55371

Rollin Dennistoun
MN Agri-Growth Council
3030 Cedar Avenue
Suite 213
Bloomington, MN 55425

Mr. Greg Falk
Jones Petroleum Company
2930 North 33rd Street
P.O. Box 30225
Lincoln, NE 68503

Mr. Ken Grant
3M
Building 21-2W-05
P.O. Box 33331
St. Paul, MN 55133

C. M. Douglass
St. Mary's Hospital
1216 - 2nd Street, SW
P.O. Box 911
Rochester, MN 55903-0911

L. M. Ferdinandsen
Watkins Incorporated
150 Liberty Street
Winona, MN 55987

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

Mr. C. A. Douthitt
Milwaukee Solvents
& Chemicals
P.O. Box 444
Butler, MN 53007

Ms. Rebecca Flood IO
Metropolitan Waste Control
Mears Park Centre
230 East Fifth Street
St. Paul, MN 55101

Ms. Cathy Griffith
Rexnord Chemical
Resin Systems Division
6180 East 58th Avenue
Commerce City, CO 80022

Mr. David Downs
Control Data Corp.
3100 34th Avenue South
P.O. Box 0
Minneapolis, MN 55440

Mr. Kenneth Ford
Honeywell Inc.
Honeywell Plaza 3175
Minneapolis, MN 55408

Mr. Merlyn Gutz
Geo. A. Hormel & Company
501 Northeast 16th Avenue
P.O. Box 800
Austin, MN 55912

MN DNR
500 Lafayette
St. Paul, MN

A. G. Hale
Minnesota Solvents and
Chemicals Corporation
2340 Rose Place
Roseville, MN 55113

Mr. Dale Halverson
Dana Corporation
600 Hoover Strett NE
Minneapolis, MN 55413

Ms. Anne Harri
Special Resource Mgmt, Inc.
1131 Westrac Drive
Suite 201
Fargo, MN 58103

G. W. Harries
Hanft, Fride, O'Brien,
Harries, Swelbar & Burns
1000 First Bank Place
Duluth, MN 55802

Mr. Brian J. Hauge
Round River Environ-
mental Services
Route 2, Box 179
Fertile, MN 56540

Ms. Debra Hefel
Interstate Power Company
1000 Main Street
P.O. Box 769
Dubuque, IA 52004-0769

Mr. Douglas Hildre
FMC
4800 East River Road
P.O. Box 59043
Minneapolis, MN 55459-0043

Mr. Jay Hill
Ashland Petroleum Company
P.O. Box 391
Ashland, KY 41114

Solvent Systems
1063 Devonshire Curve
Minneapolis, MN 55431

Terry Hoffman
Bio Trol
386 North Wabasha
Suite 840
St. Paul, MN 55102

Mr. Ivan Jacobs
Mississippi Street Metals
800 Mississippi Street
St. Paul, MN 55101

Mr. Dave Jacobson
ENSR Consulting &
Engineering
4500 Park Glen Road
St. Louis Park, MN 55416

Gene Jameson
Waste Research and
Reclamation Co. Inc.
Route 7
Eau Claire, WI 54701

Ms. Ruth Jensen
Northern Border Pipeline Co.
2223 Dodge Street
Omaha, NE 68102

Mr. Jay Johnson
7496 Saratoga Drive
P.O. Box 537
Chanhassen, MN 55317

Foth & Van Dyke
Division Manager
10340 Viking Drive, Suite 100
Eden Prairie, MN 55344

Terry Johnston
Prometheus Company
Route 1
P.O. Box 231
Wells, MN 56097

Bay West Inc.
5 Empire Drive
St. Paul, MN 55103

Mr. Dennis Jurewicz
Stone Container Corp
2150 Parklake Drive
Suite 400
Atlanta, GA 30345

R. A. Kaiser
Pace Laboratories, Inc.
1710 Douglas Drive N
Minneapolis, MN 55422

Mr. R. J. Kale
Soo Line Railroad Co.
Soo Line Bldg., Room 300
P.O. Box 530
Minneapolis, MN 55440

Mr. John Keenan
Ecolab Incorporated
Ecolab Center
St. Paul, MN 55102

Mr. Phil Klein
Chemical Specialties
1913 Eye Street
Washington, D.C. 20006

Mr. Paul Klinge
Honeywell Systems and
Research Center
3660 Technology Drive
Minneapolis, MN 55440

Mr. Mike Knispel
MAK Oil Company
1047 Raymond
St. Paul, MN 55108

Mr. Alan Knutson
Safety and Security
Saint Marys Hospital
1216-2nd Street SW
Rochester, MN 55902

nisys Corp. Semi-
conductor Operations
.O. Box 64724 MS H2N26
t. Paul, MN 55164

r. Allen Kuebelbeck
arson Boats
02 West Mississippi
River Drive
ittle Falls, MN 56345

s. Carol Kuehn
erco Laboratories
931 West County Rd. C-2
t. Paul, MN 55113

r. Carter Kuehn
row Wing County SW Officer
lanning and Zoning Office
ourthouse
rainerd, MN 56401

r. Terry Lahti IO
atural Resources
00 Lafayette Road
t. Paul, MN 55155-4016

s. Karen Lampert
innegasco, Inc.
00 West Linden Avenue
.O. Box 1165
inneapolis, MN 55440-1165

s. Inez Lange
and O'Lakes Inc
.O. Box 116
inneapolis, MN 55440

r. Linda W. Little
overnor's Waste Mgmt. Board
25 North Salisbury Street
aleigh, NC 27611

r. Jeffrey Leed
xide Corporation
45 Penn Street
.O. Box 14205
eading, PA 19612-4205

Systems
5501 Norman Center Drive
Minneapolis, MN 55437

Ms. Margaret McCourtney
Environmental Information Ltd
7400 Metro Boulevard
Suite 400
Minneapolis, MN 55435

Mr. Charles McDuff
Ecolab Incorporated
Ecolab Center
St. Paul, MN 55118

Mr. Barry McGrath
Soo Line Railroad Co.
105 South Fifth Street
Suite 1000
Minneapolis, MN 55440

Mr. Kevin McNew
Sentinel Chemical
7714 Beech Street
Fridley, MN 55432

Mr. Farook Meah
Advance Circuits Inc.
560 16th Avenue S
Hopkins, MN 55343

B. K. Meierbachtol
Anchor Glass Container Corp.
4108 Valley Industrial Blvd
P.O. Box 69
Shakopee, MN 55379-0069

M. A. Mikovich
Union Carbide Corporation
10 South Riverside Plaza
22cd Floor
Chicago, IL 60606-3882

Mr. Dave Miller
Sheldahl, Inc.
Highway 3 North
P.O. Box 170
Northfield, MN 55057

Eaton Corporation
15151 Highway 5
Eden Prairie, MN 55344

Mr. Terry Miller
Waste Mgmt of Minn, Inc
14730 Sunfish Lake Blvd
P.O. Box 67
Anoka, MN 55303

Mr. William Miller, Jr.
Ashland Oil Inc.
5 West Broadway
P.O. Box 9
St. Paul Park, MN 55071

Mr. Everett Milton
GNB Incorporated
1110 Highway 110
P.O. Box 64100
St. Paul, MN 55164-0100

Terry Mitchell
Corisma Group
8 Perimeter Center East
Suite 8050
Atlanta, Georgia 30346

Mr. Edward M. Moersfelder
Leonard, Street and Deinard
100 South Fifth Street
Suite 1500
Minneapolis, MN 55402

Mr. Joe Muller
Northern States Power
414 Nicollet Mall
Minneapolis, MN 55401

Ms. JoAnne Musumeci IO
State Planning Agency
300 Centennial Bldg.

aley Track Service
35 2nd Avenue S
.O. Box 123
ayport, MN 55003

r. Larry Nowak
.S. Air Force Reserve
34th TAG/DEEV
inneapolis-St. Paul IAP,
innesota 55450

r. John Nyhlen
yhlen's Used Oil Service
6996 Patrica Street
aynesville, MN 56362

s. Anne Ochs
raun Environmental Lab.
800 South County Road 18
.O. Box 35108
inneapolis, MN 55435-0108

r. Dennis O'Connell
elex Communications Inc
600 Aldrich Avenue S
inneapolis, MN 55420

s. Ruth O'Connell
orum Chemical Co.
130 Energy Park Drive
t. Paul, MN 55108

r. Albert Orr
nvironmental Trans.
Services, Inc.
.O. Box 36118
klahoma City, OK 73136

r. Barry Owen
adger Foundry Co
058 East Mark Street
.O. Box 1306
inona, MN 55987

r. James Payne
opham Haik et al
300 Piper Jeffray Tower
inneapolis, MN 55402

Safety-Kleen Corporation
777 Big Timber Road
Elgin, IL 60123

Ms. Jan Perlowski
Bureau of Engraving, Inc.
3311 Broadway Northeast
Minneapolis, MN 55413

Ms. Donna Peterson, MNTAP
University of Minnesota
420 Delaware Southeast
Box 197 Mayo Building
Minneapolis, MN 55455

Mr. George Patros
Unibond Inc.
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Ms. Doris Polson
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Ford Motor Company
15201 Century Drive
#608
Dearborn, MI 48120

Mr. Paul Pyzdrowski
Watt/Peterson, Inc.
15020-27th Avenue N
Plymouth, MN 55441

RMT Inc.
1406 E. Washington Ave
Suite 124
Madison, WI 53703
Attn: Library

Mr. Steven A. Reed
H. B. Fuller Company
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Shoreview, MN 55126

BRA Incorporated
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Anoka County Health Department
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Mr. Michael Shotliff
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Metropolitan Inter-Co. Assoc.
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Minnesota Chamber of Commerce
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Re: 4215

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Mr. Terry Graumann
Ottertail Power Company
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Mr. Jim Eggan
United Power Association
Highway 10
Elk River, MN 55330

Mr. Delmar Ehrich
2200 Norwest Center
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Ms. Becky Comstock, Attorney
2200 First Bank Place East
Minneapolis, MN 55402

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste and Governing Polychlorinated Biphenyls, Minn. Rules Chs. 7001, 7045, and 7100

NOTICE OF INTENT TO ADOPT RULES WITHOUT A PUBLIC HEARING

Notice is hereby given that the Minnesota Pollution Control Agency (MPCA) intends to adopt the above-entitled rule amendments without a public hearing following the procedures set forth in the Administrative Procedure Act for adopting rule amendments without a public hearing in Minn. Stat. §§ 14.22 to 14.28 (1988). The MPCA's authority to adopt the rule amendments is set forth in Minn. Stat. §§ 116.07, subd. 4 and 116.37 (1988).

All persons have until 4:30 p.m. on June 21, 1990 to submit comments in support of or in opposition to the proposed rule amendments or any part or subpart of the rules. Comment is encouraged. Each comment should identify the portion of the proposed rule amendments addressed, the reason for the comment, and any change proposed.

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

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

Nathan B. Cooley
Hazardous Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155
612/643-3477

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

The MPCA proposes in this rulemaking to adopt seven federal amendments pertaining to various portions of existing Minn. Rules chs. 7001 and 7045 which govern management of hazardous wastes. It also proposes amending existing Minn. Rules ch. 7100 governing certificates of exemption for the management of polychlorinated biphenyls.

The seven federal amendments were promulgated by the U.S. Environmental Protection Agency to correct and clarify existing regulations which govern the following: storage and treatment tank system standards, delisting of iron

dextran, delisting of strontium sulfide, relisting of certain metal smelting wastes, statistical methods for ground water monitoring data, farmers' exemptions, and trial burn information requirements for the modification of existing hazardous waste thermal treatment permits. The MPCA proposes to adopt these federal amendments without substantial change in order to provide equivalent state rules and in order to retain federal authorization to administer its hazardous waste program.

The state initiated amendments to rules governing certificates of exemption serve to reduce the burden and the potential confusion from rules which have become duplicative due to changes in the corresponding federal regulations. These amendments provide a process wherein persons may obtain a state certificate of exemption by rule under certain circumstances. One free copy of the rules is available upon request at the above address.

A Statement of Need and Reasonableness which describes the need for and reasonableness of each provision of the proposed rule amendments has been prepared and is available upon request at the above address.

You are hereby advised, pursuant to Minn. Stat. § 14.115 (1988), "Small Business Considerations in Rulemakings," that the economic effect of these proposed amendments on small businesses is anticipated to be either neutral or beneficial. Adopting the federal amendments governing the management of hazardous waste will correct and clarify existing rules. The only apparent increase in regulatory burden results from the federal relisting of certain metal smelting wastes. While the MPCA is required to relist these wastes in order to retain its authorization to administer its hazardous waste program, it does not believe that any businesses in Minnesota will be affected by this relisting. The state amendments governing certificates of exemption reduce duplicative requirements. The anticipated effect of this rulemaking is to save time and effort for the regulated community. This rulemaking amends existing rules. No substantive economic effects are anticipated for Minnesota businesses of any size due to these proposed amendments.

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

Dated: May 10, 1990

Barbara Lindsey Sims for
Gerald L. Willet
Commissioner

Clerk-Typist II	956	~~1361~~ 1626
Clerk-Typist III	1215	~~1738~~ 1899
Clerk-Steno	956	~~1361~~ 1626

Subp. 2. and 3. [See Repealer.]

REPEALER. *Minnesota Rules*, parts 7520.0610, subpart 1; 7520.1000, subparts 2 and 3; 7520.1100, subparts 2 and 3, are repealed.

Pollution Control Agency

Proposed Permanent Rules Relating to Hazardous Waste and Polychlorinated Biphenyls

Notice of Intent to Adopt a Rules without a Public Hearing

NOTICE IS HEREBY GIVEN that the Minnesota Pollution Control Agency (MPCA) intends to adopt the above-entitled rule amendments without a public hearing following the procedures set forth in the Administrative Procedure Act for adopting rule amendments without a public hearing in *Minnesota Statutes* §§ 14.22 to 14.28 (1988). The MPCA's authority to adopt the rule amendments is set forth in *Minnesota Statutes* §§ 116.07, subd. 4 and 116.37 (1988).

All persons have until 4:30 p.m. on June 21, 1990 to submit comments in support of or in opposition to the proposed rule amendments or any part or subpart of the rules. Comment is encouraged. Each comment should identify the portion of the proposed rule amendments addressed, the reason for the comment, and any change proposed.

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Nathan B. Cooley
Hazardous Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155
612/643-3477

The MPCA proposes in this rulemaking to adopt seven federal amendments pertaining to various portions of existing *Minnesota Rules* chs. 7001 and 7045 which govern management of hazardous wastes. It also proposes amending existing *Minnesota Rules* ch. 7100 governing certificates of exemption for the management of polychlorinated biphenyls.

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The state initiated amendments to rules governing certificates of exemption serve to reduce the burden and the potential confusion from rules which have become duplicative due to changes in the corresponding federal regulations. These amendments provide a process wherein persons may obtain a state certificate of exemption by rule under certain circumstances. The proposed rule amendments are published below. One free copy of the rules is available upon request at the above address.

A STATEMENT OF NEED AND REASONABLENESS which describes the need for and reasonableness of each provision of the proposed rule amendments has been prepared and is available upon request at the above address.

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

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Gerald L. Willet
Commissioner

Rules as Proposed

7001.0700 HAZARDOUS WASTE THERMAL TREATMENT FACILITY PERMITS.

[For text of subps 1 to 10, see M.R.]

Subp. 11. **Requirements for existing hazardous waste thermal treatment facilities.** To determine the feasibility of compliance with the performance standards of part 7045.0542, subpart 4, and to determine adequate operating conditions under part 7045.0542, subpart 6, the applicant for a permit for an existing hazardous waste thermal treatment facility ~~may~~ must prepare and submit to the commissioner a trial burn plan and perform a trial burn in accordance with subparts 3 to 8~~.~~ and part 7001.0630, item B, or, instead, submit other information as specified in part 7001.0630, item C. Applicants submitting information under part 7001.0630, item A, are exempt from compliance with part 7045.0542, subparts 4 and 6, and, therefore, are exempt from the requirement to conduct a trial burn. An applicant who submits trial burn plans and who receives approval before submission of a permit application shall complete the trial burn and submit the results specified in subpart 6 with Part B of the permit application. Trial burn results must be submitted prior to issuance of the permit. If completion of this process conflicts with the date set for submission of the Part B application, the applicant shall contact the commissioner to establish a later date for the submission of the Part B application or trial burn results. ~~If~~ When the applicant submits a trial burn plan with Part B of the permit application, the commissioner shall specify a time period prior to permit issuance in which the trial burn must be conducted and the results ~~must be~~ submitted ~~within a time period to be specified by the commissioner~~.

7045.0020 DEFINITIONS.

[For text of subps 1 to 15, see M.R.]

Subp. 15a. **Detect and detection.** "Detect" and "detection" refer to the finding of statistically significant evidence of contamination as described in part 7045.0484, subpart 12, item F.

[For text of subps 16 to 20, see M.R.]

Subp. 21. **Elementary neutralization unit.** "Elementary neutralization unit" means a device which:

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

B. meets the definition of tank, tank system, container, transport vehicle, or vessel.

[For text of subps 21a and 22, see M.R.]

Subp. 22a. **Exceed and exceeded.** "Exceed" and "exceeded" refer to the finding of statistically significant evidence of increased contamination as described in part 7045.0484, subpart 13, item D.

[For text of subps 23 to 102a, see M.R.]

Subp. 103. **Wastewater treatment unit.** "Wastewater treatment unit" means a device which:

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

C. meets the definition of "tank" as defined in subpart 90, or "tank system" as defined in subpart 90a.

[For text of subps 104 to 109, see M.R.]

7045.0120 EXEMPT WASTES.

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

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

I. waste from the extraction, beneficiation, and processing of ores and minerals, including coal, and including phosphate rock and overburden from the mining of uranium ore~~:~~.

Solid waste from the processing of ores and minerals does not include:

(1) acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production;

(2) surface impoundment solids contained in the dredged from surface impoundments at primary lead smelting facilities;

(3) sludge from treatment of process wastewater or acid plant blowdown from primary zinc production;

(4) spent potliners from primary aluminum reduction;

(5) emission control dust or sludge from ferrochromiumsilicon production; or

(6) emission control dust or sludge from ferrochromium production;

[For text of items J to P, see M.R.]

7045.0135 LISTS OF HAZARDOUS WASTES.

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

Subp. 3. **Hazardous waste from specific sources.** Hazardous wastes from specific sources are listed with the industry and hazardous waste number and hazard code in items A to ~~L~~ Q.

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

I. Primary copper: K064, acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production: (T).

J. Primary lead: K065, surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities: (T).

K. Primary zinc: K066, sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production: (T).

L. Primary aluminum: K088, spent potliners from primary aluminum reduction: (T).

M. Ferroalloys:

(1) K090, emission control dust or sludge from ferrochromiumsilicon production: (T); and

(2) K091, emission control dust or sludge from ferrochromium production: (T).

N. Secondary lead:

(1) K069, emission control dust or sludge from secondary lead smelting: (T); and

(2) K100, waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting: (T).

~~J~~ Q. Veterinary pharmaceuticals:

(1) K084, wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T);

(2) K101, distillation tar residues from the distillation of aniline based compounds in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T); and

(3) K102, residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T).

~~K~~ P. Ink formulation: K086, solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, dryers, soaps, and stabilizers containing chromium and lead: (T).

~~L~~ Q. Coke:

(1) K060, ammonia still lime sludge from coking operations: (T); and

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(2) K087, decanter tank tar sludge from coking operations: (T).

Subp. 4. **Discarded commercial chemical products, off specification species, containers, and spill residues.** The following materials or items are hazardous wastes when they are discarded or intended to be discarded as described in part 7045.0020, subpart 18; when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment; when they are otherwise applied to the land in lieu of their original intended use; when they are contained in products that are applied to the land in lieu of their original intended use; or when, in lieu of their original intended use, they are produced for use as, or as a component of a fuel, distributed for use as a fuel, or burned as a fuel.

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

E. the commercial chemical products or manufacturing chemical intermediates, or off specification commercial chemical products or manufacturing chemical intermediates referred to in items A to D and listed in subitems (1) to (17), are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, items B and C. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), and R (reactivity). Absence of a letter indicates that the compound is listed only for acute toxicity. These wastes and their corresponding hazardous waste numbers, Chemical Abstract Service registry numbers, if available, and hazard codes are listed in subitems (1) to (17).

[For text of subitems (1) to (12), see M.R.]

(13) Hazardous wastes from commercial chemical products beginning with the letter S:

(a) P114, 12039-52-0, Selenious acid, dithallium(1+) salt;

(b) P103, 630-10-4, Selenourea;

(c) P104, 506-64-9, Silver cyanide;

(d) P104, 506-64-9, Silver cyanide Ag(CN);

(e) P105, 26628-22-8, Sodium azide;

(f) P106, 143-33-9, Sodium cyanide;

(g) P106, 143-33-9, Sodium cyanide Na(CN);

(h) ~~P107, 1314-96-1, Strontium sulfide;~~

~~(i) P107, 1314-96-1, Strontium sulfide SrS;~~

~~(j)~~ P108, 57-24-9, Strychnidin-10-one, and salts;

~~(k)~~ (i) P018, 357-57-3, Strychnidin-10-one, 2,3-dimethoxy-;

~~(l)~~ (j) P108, 57-24-9, Strychnine and salts; and

~~(m)~~ (k) P115, 7446-18-6, Sulfuric acid, dithallium(1+) salt.

[For text of subitems (14) to (17), see M.R.]

F. The commercial chemical products or manufacturing chemical intermediates, or off-specification commercial chemical products referred to in items A to D, and listed in subitems (1) to (24) are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, item A. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), R (reactivity), I (ignitability), and C (corrosivity). Absence of a letter indicates that the compound is listed only for toxicity. These wastes and their corresponding hazardous waste numbers, Chemical Abstract Service registry numbers, if available, and hazard codes are listed as follows:

[For text of subitems (1) to (8), see M.R.]

(9) Hazardous wastes from commercial chemical products beginning with the letter I:

(a) U116, 96-45-7, 2-Imidazolidinethione;

(b) U137, 193-39-5, Indeno[1,2,3cd]pyrene;

(c) ~~U139, 9004-66-4, Iron dextran;~~

~~(d)~~ U190, 85-44-9, 1,3-Isobenzofurandione;

~~(e)~~ (d) U140, 78-83-1, Isobutyl alcohol: (I,T); and

~~(f)~~ (e) U141, 120-58-1, Isosafrole.

[For text of subitems (10) to (24), see M.R.]

[For text of subp 5, see M.R.]

7045.0139 BASIS FOR LISTING HAZARDOUS WASTES.

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

Subp. 2. **Constituents.** The constituents which are the basis for listing the wastes identified in part 7045.0135, subparts 2 and 3 are listed in items A and B.

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

B. Constituents of wastes identified in part 7045.0135, subpart 3 are listed in subitems (1) to ~~(89)~~ (95).

[For text of subitems (1) to (54), see M.R.]

(55) K064: Lead, cadmium;

(56) K065: Lead, cadmium;

(57) K066: Lead, cadmium;

(58) K069: Hexavalent chromium, lead, cadmium;

~~(56)~~ (59) K071: Mercury;

~~(57)~~ (60) K073: Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane;

~~(58)~~ (61) K083: Aniline, diphenylamine, nitrobenzene, phenylenediamine;

~~(59)~~ (62) K084: Arsenic;

~~(60)~~ (63) K085: Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride;

~~(61)~~ (64) K086: Lead, hexavalent chromium;

~~(62)~~ (65) K087: Phenol, naphthalene;

(66) K088: Cyanide (complexes);

(67) K090: Chromium;

(68) K091: Chromium;

~~(63)~~ (69) K093: Phthalic anhydride, maleic anhydride;

~~(64)~~ (70) K094: Phthalic anhydride;

~~(65)~~ (71) K095: 1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane;

~~(66)~~ (72) K096: 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane;

~~(67)~~ (73) K097: Chlordane, heptachlor;

~~(68)~~ (74) K098: Toxaphene;

~~(69)~~ (75) K099: 2,4-dichlorophenol, 2,4,6-trichlorophenol;

~~(70)~~ (76) K100: Hexavalent chromium, lead, cadmium;

~~(71)~~ (77) K101: Arsenic;

~~(72)~~ (78) K102: Arsenic;

~~(73)~~ (79) K103: Aniline, nitrobenzene, phenylenediamine;

~~(74)~~ (80) K104: Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine;

~~(75)~~ (81) K105: Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol;

~~(76)~~ (82) K106: Mercury;

~~(77)~~ (83) K111: 2,4-Dinitrotoluene;

~~(78)~~ (84) K112: 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline;

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~~(79)~~ (85) K113: 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline;

~~(80)~~ (86) K114: 2,4-Toluenediamine, o-toluidine, p-toluidine;

~~(81)~~ (87) K115: 2,4-Toluenediamine;

~~(82)~~ (88) K116: Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene;

~~(83)~~ (89) K117: Ethylene dibromide;

~~(84)~~ (90) K118: Ethylene dibromide;

~~(85)~~ (91) K123: Ethylene thiourea;

~~(86)~~ (92) K124: Ethylene thiourea;

~~(87)~~ (93) K125: Ethylene thiourea;

~~(88)~~ (94) K126: Ethylene thiourea; and

~~(89)~~ (95) K136: Ethylene dibromide.

7045.0141 HAZARDOUS CONSTITUENTS.

[For text of subps 1 to 9, see M.R.]

Subp. 10. **"I" constituents.** Hazardous constituents beginning with the letter I are as follows:

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

B. ~~Iron dextran, 9004-66-4, U139;~~

~~C.~~ Isobutyl alcohol, 78-83-1, U140;

~~D~~ C. Isodrin, 465-73-6, P060; and

~~E~~ D. Isosafrole, 120-58-1, U141.

[For text of subps 11 to 17, see M.R.]

Subp. 18. **"S" constituents.** Hazardous constituents beginning with the letter S are as follows:

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

O. ~~Strontium sulfide, 1314-96-1, P107;~~

~~P.~~ Strychnine, 57-24-9, P108; and

~~Q~~ P. Strychnine salts, _____, P108.

[For text of subps 19 to 23, see M.R.]

7045.0213 FARMERS; PESTICIDES.

A farmer who generates waste pesticides which are hazardous waste and who complies with all of the requirements of part 7045.0304 is not required with respect to those pesticides, to comply with other standards in parts 7045.0205 to 7045.0304 or to comply with parts 7045.0450 to ~~7045.1030~~ 7045.1380, or to obtain a hazardous waste facility permit.

7045.0484 GROUNDWATER PROTECTION.

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

Subp. 3. **Groundwater protection standard.** The owner or operator shall comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents ~~entering~~ detected in the groundwater from a regulated unit do not exceed the concentration limits in the groundwater at and beyond the point of compliance during the compliance period. The agency shall establish the groundwater protection standard in the facility permit when hazardous constituents have been detected in the groundwater based on data provided by monitoring of the groundwater quality as specified in subparts 11 and 12.

[For text of subps 4 to 10, see M.R.]

Subp. 11. **General groundwater monitoring requirements.** The owner or operator shall comply with the requirements of items A to J for any groundwater monitoring program developed to satisfy subpart 12, 13, or 14:

A. The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield groundwater samples from groundwater that:

(1) represent the quality of background groundwater that has not been affected by leakage from a regulated unit;

(a) a determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

i. hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

ii. sampling at other wells will provide an indication of background groundwater quality that is representative or more representative than that provided by the upgradient wells; and

[For text of subitem (2), see M.R.]

(3) ~~are likely to detect~~ allow for the detection of potential contamination from the regulated unit.

[For text of items B to F, see M.R.]

~~G. The ground water monitoring program must establish background ground water quality for each hazardous constituent which may reasonably be expected to be in or derived from the wastes to be managed at the facility and for each of the hazardous constituents or monitoring parameters specified in the permit. The agency may also require the establishment of background values as well as periodic monitoring of ground water for chemical components and physical properties which are necessary to document ground water quality. The agency may require additional ground water monitoring systems if the subsurface beneath the regulated unit contains multiple soil or rock formations and if these formations have significant hydraulic or compositional differences. The basis of background ground water quality must be as follows:~~

~~(1) For new facilities, background ground water quality for a hazardous constituent or monitoring parameter must be based on data from at least quarterly sampling of all monitoring wells at the waste management area for one year prior to operation.~~

~~(2) For existing facilities, background ground water quality for a hazardous constituent or monitoring parameter must be based on data from at least quarterly sampling of all monitoring wells upgradient from the waste management area for one year.~~

~~(3) For facilities in a compliance monitoring program, background ground water quality for a hazardous constituent or monitoring parameter must be based on data from upgradient wells that: are available before the permit is issued; account for measurement errors in sampling and analysis; and account, to the extent feasible, for seasonal fluctuations in background ground water quality if the fluctuations are expected to affect the concentration of the hazardous constituent or monitoring parameter.~~

~~(4) Background ground water quality may be based on alternate procedures if the agency determines that sampling at other wells provides an indication of background ground water quality that is as representative as that provided by the procedures in subitems (1) and (2).~~

~~(5) In developing the data base used to determine a background value for a monitoring parameter or hazardous constituent, the owner or operator shall take a minimum of one sample from each well and a minimum of four samples from the entire system used to determine background ground water quality, each time the system is sampled.~~

~~H. The owner or operator shall use one of the statistical procedures given in subitems (1) and (2) in determining whether background values or concentration limits have been exceeded if, in a detection monitoring program, the level of a hazardous constituent or monitoring parameter at the compliance point is to be compared to the hazardous constituent's or monitoring parameter's background value and that background value has a sample coefficient of variation less than 1.00. The statistical procedures are:~~

~~(1) The owner or operator shall take at least four portions from a sample at each well at the compliance point and determine whether the difference between the mean of the hazardous constituent or monitoring parameter at each well, using all portions taken, and the background value for the hazardous constituent or monitoring parameter is significant at the 0.05 level using the Cochran's Approximation to the Behrens-Fisher Students' t-test as described in part 7045.0544. If the test indicates that the difference is significant, the owner or operator shall repeat the same procedure, with at least the same number of portions as used in the first test, with a fresh sample from the monitoring well. Within seven days of completing the statistical analysis of the data from the first round of sampling, the owner or operator shall collect the fresh ground water sample from the monitoring well. If the second round of analyses indicates that the difference is significant, the owner or operator shall conclude that a statistically significant change has occurred.~~

~~(2) The owner or operator may use an equivalent statistical procedure for determining whether a statistically significant change has occurred. The agency shall specify the procedure in the facility permit if it finds that the alternative procedure reasonably balances the probability of falsely identifying a noncontaminating regulated unit and the probability of failing to identify a contaminating regulated unit in a manner that is comparable to that of the statistical procedure described in subitem (1).~~

~~I. In a compliance monitoring program and in situations where the sample coefficient of variation is not less than 1.00 between the hazardous constituent's or monitoring parameter's background value and the level of a hazardous constituent or~~

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~~monitoring parameter at the compliance point in a detection monitoring program. the owner or operator shall use a statistical procedure providing reasonable confidence that the migration of hazardous constituents or monitoring parameters from a regulated unit into and through the ground water will be indicated. The agency shall specify a statistical procedure in the facility permit that it finds:~~

~~(1) is appropriate for the distribution of the data used to establish background values or concentration limits; and~~

~~(2) provides a reasonable balance between the probability of falsely identifying a noncontaminating regulated unit and the probability of failing to identify a contaminating regulated unit.~~

~~J. The owner or operator shall provide the commissioner in writing with any field data, analytical data, and statistical calculations from the sampling of ground water monitoring wells as part of establishing or complying with the general ground water monitoring requirements, ground water protection standard, detection monitoring program, compliance monitoring program, or corrective action program. The data and calculations shall be submitted within seven days after the completion of statistical calculations, unless a different reporting period is established in the permit.~~

G. In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit shall be collected from background wells and wells at the compliance points. The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to groundwater from a facility will be detected. The owner or operator shall determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which shall be specified in the facility permit upon approval by the agency. This sampling procedure shall be:

(1) a sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport characteristics of the potential contaminants; or

(2) an alternate sampling procedure proposed by the owner or operator and approved by the commissioner.

H. The owner or operator shall specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the commissioner, will be specified in the facility permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical, quantification limits are used in any of the following statistical procedures to comply with item I, subitem (5), the practical quantification limits must be proposed by the owner or operator and approved by the commissioner. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in item I.

(1) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) Another statistical test method submitted by the owner or operator and approved by the commissioner.

I. Any statistical method chosen under item H for specification in the facility permit shall comply with the following performance standards, as appropriate:

(1) The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

(3) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its

associated parameter values shall be proposed by the owner or operator and approved by the commissioner to be protective of human health and the environment.

(4) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be proposed by the owner or operator and subject to an approval by the agency to be protective of human health and the environment. These parameters will be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(5) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit approved by the commissioner which is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(6) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

J. Groundwater monitoring data collected in accordance with item G, including actual levels of constituents, must be maintained in the facility operating record. The agency shall specify in the permit when the data must be submitted for review.

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

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

~~C. The owner or operator shall establish a background value for each monitoring parameter or hazardous constituent which may reasonably be expected to be in or derived from the wastes to be managed at the facility. The permit must specify the hazardous constituents and monitoring parameters and their background values or specify the procedures to be used to calculate the background values.~~

~~The owner or operator shall comply with subpart 11, item G, in developing the data base used to determine background values.~~

~~The owner or operator shall express background values in a form necessary for the determination of statistically significant increases under subpart 11, items H and I.~~

~~In taking samples used in the determination of background values, the owner or operator shall use a ground water monitoring system that complies with subpart 11, items A, subitem (1); B; and C.~~

~~D. The owner or operator shall determine ground water quality at each monitoring well at the compliance point for a monitoring parameter or hazardous constituent under item A at least semiannually during the active life of a regulated unit, including the closure period, and the post closure care period. The owner or operator shall express the ground water quality at a monitoring well in a form necessary for the determination of statistically significant increases under subpart 11, items H and I.~~

C. The owner or operator shall conduct a groundwater monitoring program for each chemical parameter and hazardous constituent specified in the permit under item A in accordance with subpart 11, item G. The owner or operator shall maintain a record of groundwater analytical data as measured and in a form necessary for the determination of statistical significance under subpart 11, item H.

D. The agency shall specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit under item A in accordance with subpart 11, item G. A sequence of at least four samples from each well, background, and compliance wells, must be collected at least semiannually during detection monitoring.

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

~~F. The owner or operator shall use procedures and methods for sampling and analysis that meet the requirements of subpart 11, items D and E.~~

~~G. The owner or operator shall determine whether there is a statistically significant increase over background values for a monitoring parameter or hazardous constituent specified in the permit pursuant to item A, or item E, subitem (2), where applicable, each time he or she determines ground water quality at the compliance point under items D and E.~~

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In determining whether a statistically significant increase has occurred, the owner or operator shall compare the ground water quality at each monitoring well at the compliance point for each monitoring parameter or hazardous constituent to the background value for that monitoring parameter or hazardous constituent, according to the statistical procedure specified in the permit under subpart 11, items H and I.

The owner or operator shall determine whether there has been a statistically significant increase at each monitoring well at the compliance point within the time period established in the permit.

H. If the owner or operator determines that there is a statistically significant increase for monitoring parameters or hazardous constituents specified under item A, or item E, subitem (2), where applicable, at any monitoring well at the compliance point, the owner or operator shall:

(1) Notify the commissioner of this finding in writing within seven days. The notification must indicate the monitoring parameters or hazardous constituents that have shown statistically significant increases and identify the wells in which the increases have occurred.

(2) Immediately sample the groundwater in all monitoring wells and determine whether hazardous constituents identified in the list in part 7045.0143 are present and, if they are present, determine the concentration for each.

(3) Determine a background value for each hazardous constituent that has been found at the compliance point under subitem (2), as follows:

(a) the owner or operator shall comply with subpart 11, item G, in developing the data base used to determine background values;

(b) the owner or operator shall express background values in a form necessary for the determination of statistically significant increases under subpart 11, items H and I; and

(c) in taking samples used in the determination of background values, the owner or operator shall use a ground water monitoring system that complies with subpart 11, items A, subitem (1); B; and C.

(4) Determine if statistically significant increases in the ground water have occurred for any hazardous constituent.

(5) Immediately institute a compliance monitoring program as specified in the permit and, within 90 days, submit to the agency an application for permit modification if it is necessary to revise the compliance monitoring program to meet the requirements of subpart 13. The application must include the following information:

(a) an identification of the concentration of each hazardous constituent found in the groundwater at each monitoring well at the compliance point;

(b) proposed changes to the ground water monitoring system at the facility necessary to meet the requirements of subpart 13;

(c) proposed changes to the monitoring frequency, sampling, and analysis procedures or methods, or statistical procedures used at the facility necessary to meet the requirements of subpart 13; and

(d) for each hazardous constituent that does not have a concentration limit established in the permit, a proposed concentration limit under subpart 6, items A, B, or 8.

I. If the owner or operator determines that there is a statistically significant increase of monitoring parameters or hazardous constituents specified under item A, or item E, subitem (2), where applicable, at any monitoring well at the compliance point, he or she may demonstrate that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. While the owner or operator may make a demonstration under this paragraph, he or she is not relieved of the requirement to submit a permit modification application within the time specified in item H, subitem (5), or of immediately instituting the compliance monitoring program until the demonstration successfully shows that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration, the owner or operator shall:

(1) notify the commissioner in writing within seven days of determining a statistically significant increase at the compliance point that he or she intends to make a demonstration;

(2) within 90 days, submit a report to the commissioner which demonstrates that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation;

(3) within 90 days, submit to the agency an application for a permit modification to make any appropriate changes to the detection monitoring program at the facility; and

(4) continue to monitor in accordance with the compliance monitoring program established under item H, subitem (5).

J. If the owner, operator, or commissioner determines that the detection monitoring program no longer satisfies the

~~requirements of items A to I, the owner or operator shall, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.~~

~~K. The owner or operator shall assure that monitoring and corrective action measures necessary to achieve compliance with the ground water protection standard are taken during the term of the permit.~~

F. The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter of hazardous constituent specified in the permit under item A at a frequency specified under item D.

(1) In determining whether statistically significant evidence of contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. These methods must compare data collected at the compliance points to the background groundwater quality data.

(2) The owner or operator must determine whether there is statistically significant evidence of contamination at each monitoring well as the compliance point within a reasonable period of time after completion of sampling. The agency shall specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of groundwater samples.

G. If the owner or operator determines under item F that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified under item A at any monitoring well at the compliance point, the owner or operator must:

(1) Notify the commissioner of this finding in writing within seven days. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination.

(2) Immediately sample the groundwater in all monitoring wells and determine whether constituents in the list of part 7045.0143 are present, and if so, in what concentration.

(3) For part 7045.0143 compounds found in the analysis under subitem (2), the owner or operator may resample within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents shall form the basis for compliance monitoring. If the owner or operator does not resample, the hazardous constituents found during this initial part 7045.0143 analysis shall form the basis for compliance monitoring.

(4) Within 90 days, submit to the commissioner an application for a permit modification to establish a compliance monitoring program meeting the requirements of subpart 13. The application must include the following information:

(a) an identification of the concentration or a part 7045.0143 constituent detected in the groundwater at each monitoring well at the compliance point;

(b) proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of subpart 13;

(c) proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of subpart 13; and

(d) for each hazardous constituent detected at the compliance point, a proposed concentration limit under subpart 6, item A or B, or a notice of intent to seek an alternate concentration limit under subpart 8.

(5) Within 180 days, submit to the commissioner all data necessary to justify an alternate concentration limit sought under subpart 8, and an engineering feasibility plan for a corrective action program necessary to meet the requirement of subpart 14, unless:

(a) all hazardous constituents identified under subitem (2), are listed in subpart 7 and their concentrations do not exceed the respective values given in that table; or

(b) the owner or operator has sought an alternate concentration limit under subpart 8 for every hazardous constituent identified under subitem (2).

(6) If the owner or operator determines, under item F, that there is a statistically significant difference for chemical parameters or hazardous constituents specified under item A at any monitoring well at the compliance point, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater. The owner or operator may make a demonstration under this paragraph in addition to, or in lieu of, submitting a permit modification application under subitem (4); however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified

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in subitem (4) unless the demonstration made under this subitem successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration, the owner or operator shall:

(a) notify the commissioner in writing within seven days of determining statistically significant evidence of contamination at the compliance point that the owner or operator intends to make a demonstration under this subunit;

(b) within 90 days, submit a report to the commissioner which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from an error in sampling, analysis, or evaluation;

(c) within 90 days, submit to the commissioner an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

(d) continue to monitor in accordance with the detection monitoring program established under this subpart.

H. If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this subpart, the owner or operator must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

Subp. 13. **Compliance monitoring program.** An owner or operator required to establish a compliance monitoring program under this part shall perform the following:

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

~~C. If a concentration limit is based on background ground water quality, the agency shall specify the concentration limit in the permit as described in subitems (1) and (2):~~

~~(1) The owner or operator shall comply with subpart 11, item G, in developing the data base used to determine background values: express background values in a form necessary for the determination of statistically significant increases under subpart 11, items H and I; and use a ground water monitoring system that complies with subpart 11, items A, subitems (2) and (3); B; and C.~~

~~(2) If a hazardous constituent is identified in subpart 7 and the difference between the respective concentration limit in subpart 7 and the background value of that constituent under subpart 11, item G, is not statistically significant, the owner or operator shall use the background value of the constituent as the concentration limit. In determining whether this difference is statistically significant, the owner or operator shall use a statistical procedure providing reasonable confidence that a real difference will be indicated. The statistical procedure must be appropriate for the distribution of the data used to establish background values and provide a reasonable balance between the probability of falsely identifying a significant difference and the probability of failing to identify a significant difference.~~

~~D. The owner or operator shall determine the concentration of hazardous constituents which have been detected in the ground water or are reasonably expected to be in or derived from the waste in the unit, in ground water at each monitoring well at the compliance point at least quarterly during the compliance period. The owner or operator shall express the concentration at each monitoring well in a form necessary for the determination of statistically significant increases under subpart 11, items H and I.~~

C. The agency shall specify the sampling procedures and statistical methods appropriate for the constituents and the facility, consistent with subpart 11, items G and H as described in subitems (1) and (2).

(1) The owner or operator must conduct a sampling program for each chemical parameter or hazardous constituent in accordance with subpart 11, item G.

(2) The owner or operator must record groundwater analytical data as measured and in the form necessary for the determination of statistical significance under subpart 11, item H, for the compliance period of the facility.

D. The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, under item C, at a frequency specified under item F.

(1) In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. The methods must compare data collected at the compliance points to a concentration limit developed in accordance with subpart 6.

(2) The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The agency will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities, to perform the analysis of groundwater samples.

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

~~F. The owner or operator shall use procedures and methods for sampling and analysis that meet the requirements of subpart 11, items D and E.~~

~~G. The owner or operator shall determine whether there is a statistically significant increase over the concentration limits for any hazardous constituents specified in the permit under item A each time he or she determines the concentration of hazardous constituents in ground water at the compliance point.~~

~~In determining whether a statistically significant increase has occurred, the owner or operator shall compare the ground water quality at each monitoring well at the compliance point for each hazardous constituent to the concentration limit for that hazardous constituent according to the statistical procedures specified in the permit under subpart 11, items H and I.~~

~~The owner or operator shall determine whether there has been a statistically significant increase at each monitoring well at the compliance point within the time period established in the permit.~~

F. The agency shall specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with subpart 11, item G. A sequence of at least four samples from each background and compliance well must be collected at least semiannually during the compliance period of the facility.

G. The owner or operator must analyze samples from all monitoring wells at the compliance point for all constituents contained in part 7045.0143 at least annually to determine whether additional hazardous constituents are present in the uppermost aquifer and, if so, at what concentration, according to procedures in subpart 12, item F. If the owner or operator finds part 7045.0143 constituents in the groundwater that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month and repeat the part 7045.0143 analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentration of these additional constituents to the commissioner within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then the owner or operator shall report the concentrations of these additional constituents to the commissioner within seven days after completion of the initial analysis and add them to the monitoring list.

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

I. If the owner or operator determines, under item G or H, that the groundwater protection standard is being exceeded at any monitoring well at the point of compliance, ~~he or she~~ the owner or operator may demonstrate that a source other than a regulated unit caused the ~~increase~~ contamination or that the ~~increase resulted from~~ detection is an artifact caused by an error in sampling, analysis, ~~or~~ statistical evaluation, or natural variation in the groundwater. Until the owner or operator makes a demonstration, ~~he or she~~ the owner or operator is not relieved of the requirement to submit a permit modification application if necessary to comply with item H within the time specified in item H, subitem (2) or of the requirement to institute corrective actions as established in item H, subitem (2). In making a demonstration, the owner or operator shall:

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

[For text of items J and K, see M.R.]

[For text of subp 14, see M.R.]

7045.0488 CLOSURE ACTIVITIES.

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

Subp. 3. **Disposal or decontamination of equipment, structures, and soils.** During the partial and final closure periods, all contaminated facility equipment, structures, and soils must be properly disposed of or decontaminated unless otherwise specified in part 7045.0528, subpart 9; 7045.0532, subpart 7; 7045.0534, subpart 7; 7045.0536, subpart 8; or 7045.0538, subpart 7, or under the authority of part 7045.0539, subparts 2 and 4. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of parts 7045.0205 to 7045.0304.

[For text of subp 4, see M.R.]

7045.0528 TANKS.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that use tanks to treat or store hazardous waste, except as part 7045.0450, and items A and B provide otherwise.

A. ~~Tanks~~ Tank systems that are used to store or treat hazardous waste that contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in subparts 4 and 5. To demonstrate the absence or presence

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of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. ~~Tanks~~ Tank systems, including sumps, as defined in part 7045.0020, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempt from the requirements in subparts 4 and 5.

[For text of subps 2 and 3, see M.R.]

Subp. 4. **Containment and detection of releases.** The following requirements apply to the containment and detection of releases from tanks:

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

H. Ancillary equipment must be provided with secondary containment, such as trench, jacketing, or double walled piping, that meets the requirements of items B and C, except for:

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

(3) sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis; and

[For text of subitem (4), see M.R.]

[For text of subps 5 to 11, see M.R.]

7045.0596 CLOSURE ACTIVITIES.

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

Subp. 3. **Disposal or decontamination of equipment, structures, and soils.** During the partial and final closure periods, all contaminated facility equipment, structures, and soils must be properly disposed of or decontaminated, unless otherwise specified in part 7045.0628, subpart 9; 7045.0630, subpart 6; 7045.0632, subpart 7; 7045.0634, subpart 6; or 7045.0638, subpart 4. By removing any hazardous wastes or hazardous constituents during partial or final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of parts 7045.0205 to 7045.0304.

[For text of subp 4, see M.R.]

7045.0600 POST CLOSURE.

Subpart 1. **Scope.** This part and parts 7045.0602 to 7045.0606 apply to the owners and operators of all hazardous waste disposal facilities, including surface impoundments and waste piles from which the owner or operator intends to remove the wastes at closure, to the extent that the owner or operator is required to provide post closure care in part 7045.0630, subpart 6, or in part 7045.0632, subpart 7, and also tank systems that are required under part 7045.0628, subpart 9, to meet the requirements for landfills, except as provided otherwise in part 7045.0552.

[For text of subps 2 and 3, see M.R.]

7045.0628 TANKS.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that use tanks to treat or store hazardous waste, except as items A and B and part 7045.0552 provide otherwise.

A. ~~Tanks~~ Tank systems that are used to store or treat hazardous waste containing no free liquids and that are located inside a building with an impermeable floor are exempt from the requirements of subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. ~~Tanks~~ Tank systems, including sumps, as defined in part 7045.0020 that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in subparts 4 and 5.

[For text of subps 2 and 3, see M.R.]

Subp. 4. **Containment and detection of releases.**

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

H. Ancillary equipment must be provided with full secondary containment, such as trench, jacketing, or double walled piping, that meets the requirements of items B and C, except for:

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

(3) sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

[For text of subitem (4), see M.R.]

[For text of subps 5 to 12, see M.R.]

7045.0629 REQUIREMENTS FOR SMALL QUANTITY GENERATORS THAT ACCUMULATE HAZARDOUS WASTE IN TANKS.

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

Subp. 3. **Inspections.** Small quantity generators must inspect, where present:

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

C. the level of waste in the tank at least once each operating day to ensure compliance with subpart ~~3~~ 2, item C;

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

[For text of subps 4 to 6, see M.R.]

7100.0335 CERTIFICATE OF EXEMPTION REQUIRED.

Subpart 1. **Certification of exemption required.** Except as provided in subpart 2, no person may use, possess, sell, purchase, or manufacture PCB, a product containing PCB, or a class of products containing PCB without obtaining a certificate of exemption from the agency.

Subp. 2. **Exclusions.** The requirement to obtain a certification of exemption does not apply to the following uses or products:

A. any product containing PCB that was purchased or otherwise acquired by an individual person for consumer use in the home;

B. wastepaper, pulp, or other wood fiber materials purchased for use within this state in the manufacture of recycled paper products; and

C. any electrical ballast, capacitor, or transformer that contains less than one kilogram of PCB.

Subp. 3. **Certification of exemption by rule.** Any person who is required to obtain a certificate of exemption shall be considered to have obtained a certification of exemption without making application for it, if:

A. the person complies with the manufacturing, processing, distribution, use, disposal, storage, and labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761;

B. the person's eligibility to obtain or maintain a certification of exemption by rule has not been terminated under subpart 4; and

C. the person submits a written notification to the commissioner that explains the PCB activities the person will be conducting that require a certification of exemption.

The notification requirement in item C does not apply to a person who was issued a certification of exemption under part 7100.0340 and then had the certification of exemption terminated under part 7100.0340, subpart 21, item A.

Subp. 4. **Termination of eligibility for certification of exemption by rule.** The eligibility of a person to receive or maintain a certification of exemption by rule under subpart 3 is subject to termination by the agency after notice and opportunity for a public informational meeting or a contested case hearing if the agency makes any of the findings in items A to C. A person whose eligibility to be exempted by rule under subpart 3 has been terminated shall apply for and obtain an individual certification of exemption under these parts. The following findings constitute justification for the commissioner to commence proceedings to terminate eligibility:

A. that the person does not comply with the manufacturing, processing, distribution, use, disposal, storage, and labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761;

B. that the person is conducting other activities that are not regulated under the federal PCB program in Code of Federal Regulations, title 40, part 761, and are required to be covered by a certification of exemption; and

C. that under the circumstances, in order to protect human health or the environment, the person should be subject to the requirement to obtain an individual certification of exemption under these parts.

7100.0340 CERTIFICATE OF EXEMPTION.

[For text of subps 1 to 20, see M.R.]

Subp. 21. **Termination of certification of exemption.** A certificate of exemption is terminated and the terms and conditions of the certificate of exemption are no longer in force or effect under the following circumstances:

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

A. the person issued the certificate of exemption meets the requirements for a certification of exemption by rule in part 7100.0335, subpart 3; or

B. the person issued the certificate of exemption no longer uses, possesses, sells, purchases, or manufactures PCB, a product containing PCB, or a class of products containing PCB and has submitted a written notification to the commissioner stating this fact.

A person described in item B shall submit written notification to the commissioner within 30 days of stopping PCB activities that require a certificate of exemption.

7100.0350 LABELS.

~~Subpart 1.~~ **~~Requirement.~~** Any person ~~after July 1, 1977, who adds PCB in the manufacture of any new item, product, or material or any person~~ in this state who sells any ~~new~~ item, product, or material ~~to~~ which contains PCB ~~has been added~~ shall ~~conspicuously label the PCB or product containing PCB~~ comply with all of the labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761. The above labeling requirements do not apply to the uses or products excluded in part 7100.0335, subpart 2.

~~A. The label shall disclose the following:~~

~~(1) the presence of PCB in the item, product, or material;~~

~~(2) the item, product, or material contains a concentration of PCB equal to or greater than 500 milligrams per kilogram (mg/kg);~~

~~(3) a statement regarding proper disposal; and~~

~~(4) a warning regarding potential environmental and public health hazards of PCB.~~

~~B. The label shall be written and affixed to the item, product, or material so that a reasonable person ought to have noticed it.~~

~~C. The following statement may be used to satisfy the requirements of item A:~~

~~WARNING: Contains a concentration of polychlorinated biphenyl (PCB) equal to or greater than 500 mg/kg. Severe environmental contaminant. Care should be taken to prevent entry into the environment through spills, leakage, use, vaporization, or disposal of liquid or containers. Avoid prolonged breathing of vapors or mists, contact with eyes, or prolonged contact with skin. This item must be used and disposed of in accordance with state and federal statutes and regulations.~~

REPEALER. *Minnesota Rules*, part 7100.0360, is repealed.

Pollution Control Agency

Proposed Permanent Rules Relating to Infectious Waste Management

Notice of Hearing

NOTICE IS HEREBY GIVEN that the Minnesota Pollution Control Agency (MPCA) will hold a public hearing on the above entitled matter on June 11, 1990, at the Perham Area Community Center, 620 3rd Avenue S.E., Perham, Minnesota, beginning at 4:00 p.m. and proceeding until there is no remaining testimony, or until 7:00 p.m.

The proposed rules establish standards for the off-site management of infectious waste, including packaging and labeling, transport, storage, treatment, and disposal. The proposed rules apply to owners and operators of storage, treatment, and disposal facilities, and commercial transporters. The proposed rules will provide management methods that will ensure protection of human health and the environment.

All interested or affected persons will have an opportunity to participate by submitting either oral or written data, statements, or arguments. Statements or briefs may be submitted without appearing at the hearing.

The matter will be heard before Administrative Law Judge Alan E. Giles, Office of Administrative Hearings, Flour Exchange Building, 310 Fourth Avenue South, Minneapolis, Minnesota 55415, 612/349-2543. The rule hearing procedure is governed by *Minnesota Statutes* §§ 14.131 to 14.20 (1988) and by the rules of the Office of Administrative Hearings, *Minnesota Rules* pts. 1400.0200 to 1400.1200. Questions concerning the rule hearing procedure should be directed to the Administrative Law Judge at the address and telephone number stated above.

The subject of the hearing will be the proposed rules governing infectious waste management, *Minnesota Rules* pts. 7035.9100 to

CERTIFICATE OF RESOLUTION ADOPTING RULES

I, Gerald L. Willet, do hereby certify that I am the Commissioner of the Minnesota Pollution Control Agency, an agency duly authorized under the laws of the State of Minnesota, and that the following is a true, complete, and correct copy of a resolution adopted at a meeting of the Minnesota Pollution Control Agency duly and properly called and held on the twenty-fourth day of July, 1990, that a quorum was present at said meeting, that a majority of those present voted for the resolution and that said resolution will be set forth in the minutes of said meeting and has not been rescinded or modified:

BE IT RESOLVED, that the Minnesota Pollution Control Agency hereby approves and adopts the attached amendments to the Minnesota Pollution Control Agency's hazardous waste rules governing the management of hazardous waste and polychlorinated biphenyls, Minn. Rules Pts. 7001.0700, 7045.0020, 7045.0120, 7045.0135, 7045.0139, 7045.0141, 7045.0213, 7045.0484, 7045.0488, 7045.0528, 7045.0596, 7045.0600, 7045.0628, 7045.0629, 7100.0335, 7100.0340, 7100.0350, and 7100.0360, pursuant to the authority vested in the Minnesota Pollution Control Agency by Minn. Stats. §§ 116.07, subd. 4 and 116.37, subd. 4 (1989).

BE IT FURTHER RESOLVED, that prior to publishing the rules as adopted in the State Register, the Commissioner is authorized to make any form changes to the rules that the Revisor of Statutes requires the Minnesota Pollution Control Agency to make in order to obtain the Revisor's certification as required by Minn. Stat. § 14.07, subd. 2 (1988).

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

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

Gerald L. Willet

Gerald L. Willet
Commissioner

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

REPLY TO THE ATTENTION OF:

JUN 6 1990

5HR-JCK-13

Ms. Carol Nankivel
Supervisor, Rules Unit
Hazardous Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, Minnesota 55155

Dear Ms. Nankivel:

We have reviewed the rules package submitted to our Agency on April 20, 1990, which contained the 10/11/88, Statistical Methods for Evaluating Groundwater Monitoring Data; 1/30/89, Amendments to Requirement for Hazardous Waste Incinerator Permits; 9/13/88, Identification and Listing of Hazardous Waste; 7/19/88, Farmer Exemptions; 10/31/88, Removal of Iron Dextran and Strontium Sulfide; and, 9/2/88 Hazardous Waste Management System, rules. Enclosed please find our comments.

Contact Ms. Christine Klemme of my staff, at (312) 886-3715, if you have any questions or require further assistance.

Sincerely,

Judy Kertcher, Acting Associate Division Director
Office of RCRA

Enclosure

RECEIVED
JUN 11 1990
MPCA, HAZARDOUS WASTE DIVISION

U.S. EPA's comments on Minnesota's April 20, 1990, draft submittal covering the 10/11/88; 1/30/89; 9/13/88; 7/19/88; 10/31/88; 9/2/88, rules.

1) MN 7045.0120(I)(3)/CFR 261.4(b)(7)iii. The State analog is not as inclusive as the Federal rule. The State analog uses the word "or" in midsentence, instead of "and/or" as found in the Federal rule.

2) MN 7045.0528/CFR 264.196 (Checklist 52, Page 2). The State analog for the Federal rule was omitted from the Checklist. Also, the Federal correction for 264.196, and 265.196, respectively, is missing from the Minnesota rules.

3) MN 7045.0628(1)/CFR 264.190,(Page 29, Line 24); and 7045.0528(1)/ CFR 265.190,(Page 28, Line 1). The Federal citation refers to tank systems, while the State paragraph only refers to tanks. Please list "tank systems" in the above referenced paragraphs.

4) MN 7045.0484(11)(h)/CFR 264.97(h) (Page 14, Line 10). Please delete the comma from the phrase "practical quantification limits". The phrase, practical quantification limits (pql's), defined in 40 CFR Part 264 Appendix IX, does not contain a comma.

5) MN 7045.0484(13)(D)/CFR 264.99(d), (Page 25, line 9) Please correct the sentence to specify item A of Minnesota's rule, rather than item C.

Minnesota Department of Transportation
Transportation Building, St. Paul, MN 55155

Celebrate MINNESOTA 1990

June 4, 1990

RECEIVED
JUN 5 1990
MPCA, HAZARDOUS
WASTE DIVISION

Nathan B. Cooley
Hazardous Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155

Dear Mr. Cooley:

It has come to my attention that the Minnesota Pollution Control Agency intends to adopt rule amendments governing the management of hazardous waste and polychlorinated biphenyls. These rule changes will alter Minn. Rules Chs. 7001, 7045, and 7100.

Because the proposed rule change is of interest to the Environmental Investigation and Compliance Unit at the Minnesota Department of Transportation, I am requesting a copy of the appropriate S.O.N.A.R. regarding this action. Please forward the document to the attention of Mr. Bruce Johnson, Unit Chief, Environmental Investigation and Compliance Unit, Environmental Services Section, Room 704, Transportation Building.

Please contact me at 296-3787 if you have any questions or need further information regarding this request.

Sincerely,

Jan Palenberg, Student Worker
Environmental Investigation and Compliance Unit
Environmental Services Section
Room 704, Transportation Building

cc: B. Johnson
N. Radle
R. Hill
L.E. Foote/F. Pafko
File

WCI FREEZER DIVISION

RECEIVED
MAY 21 1990
MPCA, HAZARDOUS WASTE DIVISION

5/18/90

Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

Attn: NATHAN COOLEY

RE: Proposed Amendments of Hazardous Waste Rules

I wish to receive a copy of the final amendments as adopted to the hazardous waste rules.

Ref: Notice of intent dated MAY 10, 1990 (3 NBC)

Richard B. Clute
Environmental Affairs Coordinator

RBC/jmj

LCRAR

RECEIVED
MAY 25 1990
MPCA, HAZARDOUS
WASTE DIVISION

Legislative Commission to
Review Administrative Rules

Senator Gene Waldorf
Chair

Representative Peter Rodosovich
Vice-Chair

Maryanne V. Hruby
Director

May 24, 1990

Nathan B. Cooley
Hazardous Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155

Dear Mr. Cooley:

You recently published a set of proposed rules relating to hazardous waste and polychlorinated biphenyls. The LCRAR maintains a file of all Statements of Need and Reasonableness (SONARs). With your assistance, we can keep this file current. We ask you to forward, at your earliest convenience, a copy of the SONAR for these recently published rules to:

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

If you have any questions please contact me.

Thank you.

Sincerely,

Michele Swanson

Michele Swanson
Commission Secretary

ATTACHMENT 1

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste, Minn. Rules Pts. 7001.0700, 7045.0020, 7045.0120, 7045.0135, 7045.0139, 7045.0141, 7045.0213, 7045.0484, 7045.0488, 7045.0528, 7045.0596, 7045.0600, 7045.0628, 7045.0629, 7100.0335, 7100.0340, 7100.0350, and 7100.0360

FINDINGS OF FACT, CONCLUSIONS, AND ORDER ADOPTING RULES

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

FINDINGS OF FACT

1. Notice of the MPCA's intent to adopt the above-entitled rule amendments without a public hearing was published in the State Register on May 21, 1990 (14 SR 2695), and was sent by mail to all persons on the list maintained by the MPCA pursuant to Minn. Stat. §§ 14.14, subd. 1a. and 14.22 (1988) on May 18, 1990.

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

3. All persons were given the opportunity to submit comments on the rule amendments for 30 days after notice of proposed rulemaking. The 30-day comment period, as set out in the notice, expired on June 21, 1990.

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

5. One request for notice of submission of the adopted rule amendments to the Attorney General was received by the MPCA staff. The requester is Andy Polzin, Tellus Consultants, 1315 Glenwood Avenue North, Minneapolis, Minnesota 55405. He also requested and was sent a copy of the Statement of Need and Reasonableness.

6. During the comment period, the MPCA received one written comment letter, that being from the U.S. Environmental Protection Agency (EPA). The MPCA finds that three modifications to the proposed rule amendments are justified by the record in this proceeding. The modified language, EPA's comments, and the MPCA's responses are provided below as items a), b), and c):

a) The EPA commented as follows on the revision to Minn. Rules pt. 7045.0484, subp. 11, item H: 'Please delete the comma from the phrase

"practical quantification limits". The phrase, practical quantification limits (pql's), defined in 40 CFR Part 264 Appendix IX, does not contain a comma.' The MPCA had inserted the comma errantly, believing the federally promulgated phrase meant "Where [it is] practical[,] quantification limits are used...."

Correcting this phrase to match EPA language by removing the comma is needed and reasonable in order to clarify the rule and to provide consistency with the federally defined phrase. The rule does not change substantially as a result of this correction. The modified rule text follows:

"[Minn. Rules pt.] 7045.0484 GROUNDWATER PROTECTION.

[For text of subps. 1 to 10, see Minn. Rules]

Subp. 11. General Groundwater Monitoring Requirements.

[For text of items A to G, see Minn. Rules]

H. The owner or operator shall specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the commissioner, will be specified in the facility permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical~~,~~ quantification limits are used in any of the following statistical procedures to comply with item I, subitem (5), the practical quantification limits must be proposed by the owner or operator and approved by the commissioner. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in item I.

[For text of subitems (1) to (5), items H to J, and subps. 12 to 14, see Minn. Rules]"

b) The EPA commented as follows with regard to Minn. Rules pt. 7045.0484, subp. 13, item D: "Please correct the sentence to specify item A of Minnesota's rule, rather than item C."

Item C was cited by mistake. Both item A and item C discuss concentration limits described by permits. Correcting this erroneous citation is needed and reasonable in order to be consistent with the federal language and to clarify the requirement. The intent of the rule is not changed substantially by this correction. The modified rule text follows:

"[Minn. Rules pt.] 7045.0484 GROUNDWATER PROTECTION.

Subp. 13. Compliance Monitoring Program.

[For text of items A to C, see Minn. Rules]

D. The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, under item ~~C~~ A, at a frequency specified under item F.

[For text of subitems (1) and (2), items F to K, and subp. 14, see Minn. Rules]"

c) The EPA commented as follows on the revision to Minn. Rules pts. 7045.0528, subp. 1 and 7045.0628, subp. 1: 'The Federal citation refers to tank systems, while the State paragraph only refers to tanks. Please list "tank systems" in the above referenced paragraphs.'

This revision is necessary and reasonable in order to provide clarity and consistency with the federal amendments and the rule will not change substantially as a result. In most places, the rules refer to tank systems instead of tanks. The modified rule text follows:

"[Minn. Rules pt.] 7045.0528 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. Scope. This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as part 7045.0450, and items A and B provide otherwise.

[For text of items A and B and Subps. 2 to 11, see Minn. Rules]"

and;

"[Minn. Rules pt.] 7045.0628 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. Scope. This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as items A and B and part 7045.0552 provide otherwise.

[For text of items A and B and Subps. 2 to 12, see Minn. Rules]"

The MPCA believes that it is needed and reasonable to correct the proposed rule language based on the comments received. The corrections serve to clarify the intent of the rules and to make them consistent with the federal regulations. The revisions do not result in a substantial change from the originally proposed amendments.

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

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

CONCLUSIONS

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

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

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

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

ORDER

NOW, THEREFORE, IT IS ORDERED, that the attached amendments to Minn. Rules pts. 7001.0700, 7045.0020, 7045.0120, 7045.0135, 7045.0139, 7045.0141, 7045.0213, 7045.0484, 7045.0488, 7045.0528, 7045.0596, 7045.0600, 7045.0628, 7045.0629, 7100.0335, 7100.0340, 7100.0350, and 7100.0360, governing the management of hazardous waste and polychlorinated biphenyls, are adopted pursuant to the authority vested in the MPCA by Minn. Stat. §§ 116.07, subd. 4 and 116.37, subd. 4 (1988).

Dated: _____

_____
Gerald L. Willet
Commissioner

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste, Minn. Rules Pts. 7001.0700, 7045.0020, 7045.0120, 7045.0135, 7045.0139, 7045.0141, 7045.0213, 7045.0484, 7045.0488, 7045.0528, 7045.0596, 7045.0600, 7045.0628, 7045.0629, 7100.0335, 7100.0340, 7100.0350, and 7100.0360

FINDINGS OF FACT, CONCLUSIONS, AND ORDER ADOPTING RULES

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

FINDINGS OF FACT

1. Notice of the MPCA's intent to adopt the above-entitled rule amendments without a public hearing was published in the State Register on May 21, 1990 (14 SR 2695), and was sent by mail to all persons on the list maintained by the MPCA pursuant to Minn. Stat. §§ 14.14, subd. 1a. and 14.22 (1988) on May 18, 1990.

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

3. All persons were given the opportunity to submit comments on the rule amendments for 30 days after notice of proposed rulemaking. The 30-day comment period, as set out in the notice, expired on June 21, 1990.

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

5. One request for notice of submission of the adopted rule amendments to the Attorney General was received by the MPCA staff. The requester is Andy Polzin, Tellus Consultants, 1315 Glenwood Avenue North, Minneapolis, Minnesota 55405. He also requested and was sent a copy of the Statement of Need and Reasonableness.

6. During the comment period, the MPCA received one written comment letter, that being from the U.S. Environmental Protection Agency (EPA). The MPCA finds that three modifications to the proposed rule amendments are justified by the record in this proceeding. The modified language, EPA's comments, and the MPCA's responses are provided below as items a), b), and c):

a) The EPA commented as follows on the revision to Minn. Rules pt. 7045.0484, subp. 11, item H: 'Please delete the comma from the phrase

"practical quantification limits". The phrase, practical quantification limits (pql's), defined in 40 CFR Part 264 Appendix IX, does not contain a comma.' The MPCA had inserted the comma errantly, believing the federally promulgated phrase meant "Where [it is] practical[,] quantification limits are used...."

Correcting this phrase to match EPA language by removing the comma is needed and reasonable in order to clarify the rule and to provide consistency with the federally defined phrase. The rule does not change substantially as a result of this correction. The modified rule text follows:

"[Minn. Rules pt.] 7045.0484 GROUNDWATER PROTECTION.

[For text of subps. 1 to 10, see Minn. Rules]

Subp. 11. General Groundwater Monitoring Requirements.

[For text of items A to G, see Minn. Rules]

H. The owner or operator shall specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the commissioner, will be specified in the facility permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical~~,~~ quantification limits are used in any of the following statistical procedures to comply with item I, subitem (5), the practical quantification limits must be proposed by the owner or operator and approved by the commissioner. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in item I.

[For text of subitems (1) to (5), items H to J, and subps. 12 to 14, see Minn. Rules]"

b) The EPA commented as follows with regard to Minn. Rules pt. 7045.0484, subp. 13, item D: "Please correct the sentence to specify item A of Minnesota's rule, rather than item C."

Item C was cited by mistake. Both item A and item C discuss concentration limits described by permits. Correcting this erroneous citation is needed and reasonable in order to be consistent with the federal language and to clarify the requirement. The intent of the rule is not changed substantially by this correction. The modified rule text follows:

"[Minn. Rules pt.] 7045.0484 GROUNDWATER PROTECTION.

Subp. 13. Compliance Monitoring Program.

[For text of items A to C, see Minn. Rules]

D. The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, under item ~~C~~ A, at a frequency specified under item F.

[For text of subitems (1) and (2), items F to K, and subp. 14, see Minn. Rules]"

c) The EPA commented as follows on the revision to Minn. Rules pts. 7045.0528, subp. 1 and 7045.0628, subp. 1: 'The Federal citation refers to tank systems, while the State paragraph only refers to tanks. Please list "tank systems" in the above referenced paragraphs.'

This revision is necessary and reasonable in order to provide clarity and consistency with the federal amendments and the rule will not change substantially as a result. In most places, the rules refer to tank systems instead of tanks. The modified rule text follows:

"[Minn. Rules pt.] 7045.0528 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. Scope. This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as part 7045.0450, and items A and B provide otherwise.

[For text of items A and B and Subps. 2 to 11, see Minn. Rules]"

and;

"[Minn. Rules pt.] 7045.0628 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. Scope. This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as items A and B and part 7045.0552 provide otherwise.

[For text of items A and B and Subps. 2 to 12, see Minn. Rules]"

The MPCA believes that it is needed and reasonable to correct the proposed rule language based on the comments received. The corrections serve to clarify the intent of the rules and to make them consistent with the federal regulations. The revisions do not result in a substantial change from the originally proposed amendments.

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

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

CONCLUSIONS

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

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

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

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

ORDER

NOW, THEREFORE, IT IS ORDERED, that the attached amendments to Minn. Rules pts. 7001.0700, 7045.0020, 7045.0120, 7045.0135, 7045.0139, 7045.0141, 7045.0213, 7045.0484, 7045.0488, 7045.0528, 7045.0596, 7045.0600, 7045.0628, 7045.0629, 7100.0335, 7100.0340, 7100.0350, and 7100.0360, governing the management of hazardous waste and polychlorinated biphenyls, are adopted pursuant to the authority vested in the MPCA by Minn. Stat. §§ 116.07, subd. 4 and 116.37, subd. 4 (1988).

Dated: _____

_____
Gerald L. Willet
Commissioner

Office of the Revisor of Statutes

Administrative Rules

Carla M. Riehle
Assistant Revisor
297-2948

700 State Office Building
100 Constitution Avenue
St. Paul, MN 55155-1297

July 2, 1990

Nathan Cooley
Pollution Control Agency
Hazardous Waste Division
520 Lafayette Road
St. Paul, MN 55155

RE: File No. 1601

Dear Nathan:

Enclosed are four copies of your rule with the modifications you requested.

Please submit the rules to the Attorney General or the Office of Administrative Hearings, as appropriate.

If you have any questions or need further modifications, please call me.

Very truly yours,

Carla M. Riehle

Pollution Control Agency

Adopted Permanent Rules Relating to Hazardous Waste and Polychlorinated Biphenyls

Rules as Adopted

7001.0700 HAZARDOUS WASTE THERMAL TREATMENT FACILITY PERMITS.

[For text of subps 1 to 10, see M.R.]

Subp. 11. **Requirements for existing hazardous waste thermal treatment facilities.** To determine the feasibility of compliance with the performance standards of part 7045.0542, subpart 4, and to determine adequate operating conditions under part 7045.0542, subpart 6, the applicant for a permit for an existing hazardous waste thermal treatment facility must prepare and submit to the commissioner a trial burn plan and perform a trial burn in accordance with subparts 3 to 8 and part 7001.0630, item B, or, instead, submit other information as specified in part 7001.0630, item C. Applicants submitting information under part 7001.0630, item A, are exempt from compliance with part 7045.0542, subparts 4 and 6, and, therefore, are exempt from the requirement to conduct a trial burn. An applicant who submits trial burn plans and who receives approval before submission of a permit application shall complete the trial burn and submit the results specified in subpart 6 with Part B of the permit application. Trial burn results must be submitted prior to issuance of the permit. If completion of this process conflicts with the date set for submission of the Part B application, the applicant shall contact the commissioner to establish a later date for the submission of the Part B application or trial burn results. When the applicant submits a trial burn plan with Part B of the permit application, the commissioner shall specify a time period prior to permit issuance in which the trial burn must be conducted and the results submitted.

7045.0020 DEFINITIONS.

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[For text of subps 1 to 15, see M.R.]

Subp. 15a. **Detect and detection.** "Detect" and "detection" refer to the finding of statistically significant evidence of contamination as described in part 7045.0484, subpart 12, item F.

[For text of subps 16 to 20, see M.R.]

Subp. 21. **Elementary neutralization unit.** "Elementary neutralization unit" means a device which:

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

B. meets the definition of tank, tank system, container, transport vehicle, or vessel.

[For text of subps 21a and 22, see M.R.]

Subp. 22a. **Exceed and exceeded.** "Exceed" and "exceeded" refer to the finding of statistically significant evidence of increased contamination as described in part 7045.0484, subpart 13, item D.

[For text of subps 23 to 102a, see M.R.]

Subp. 103. **Wastewater treatment unit.** "Wastewater treatment unit" means a device which:

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

C. meets the definition of "tank" as defined in subpart 90, or "tank system" as defined in subpart 90a.

[For text of subps 104 to 109, see M.R.]

7045.0120 EXEMPT WASTES.

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

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

I. waste from the extraction, beneficiation, and processing of ores and minerals, including coal, and including phosphate rock and overburden from the mining of uranium ore.

Solid waste from the processing of ores and minerals does not include:

(1) acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production;

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(2) surface impoundment solids contained in the dredged from surface impoundments at primary lead smelting facilities;

(3) sludge from treatment of process wastewater or acid plant blowdown from primary zinc production;

(4) spent potliners from primary aluminum reduction;

(5) emission control dust or sludge from ferrochromiumsilicon production; or

(6) emission control dust or sludge from ferrochromium production;

[For text of items J to P, see M.R.]

7045.0135 LISTS OF HAZARDOUS WASTES.

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

Subp. 3. **Hazardous waste from specific sources.** Hazardous wastes from specific sources are listed with the industry and hazardous waste number and hazard code in items A to Q.

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

I. Primary copper: K064, acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production: (T).

J. Primary lead: K065, surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities: (T).

K. Primary zinc: K066, sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production: (T).

L. Primary aluminum: K088, spent potliners from primary aluminum reduction: (T).

M. Ferroalloys:

(1) K090, emission control dust or sludge from ferrochromiumsilicon production: (T); and

(2) K091, emission control dust or sludge from ferrochromium production: (T).

N. Secondary lead:

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(1) K069, emission control dust or sludge from secondary lead smelting: (T); and

(2) K100, waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting: (T).

O. Veterinary pharmaceuticals:

(1) K084, wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T);

(2) K101, distillation tar residues from the distillation of aniline based compounds in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T); and

(3) K102, residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T).

P. Ink formulation: K086, solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, dryers, soaps, and stabilizers containing chromium and lead: (T).

Q. Coke:

(1) K060, ammonia still lime sludge from coking operations: (T); and

(2) K087, decanter tank tar sludge from coking operations: (T).

Subp. 4. **Discarded commercial chemical products, off specification species, containers, and spill residues.** The following materials or items are hazardous wastes when they are discarded or intended to be discarded as described in part 7045.0020, subpart 18; when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment; when they are otherwise applied to the land in lieu of their original intended use; when they are contained in products that are applied to the land in lieu of their original intended use; or when, in lieu of their

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original intended use, they are produced for use as, or as a component of a fuel, distributed for use as a fuel, or burned as a fuel.

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

E. the commercial chemical products or manufacturing chemical intermediates, or off specification commercial chemical products or manufacturing chemical intermediates referred to in items A to D and listed in subitems (1) to (17), are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, items B and C. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), and R (reactivity). Absence of a letter indicates that the compound is listed only for acute toxicity. These wastes and their corresponding hazardous waste numbers, Chemical Abstract Service registry numbers, if available, and hazard codes are listed in subitems (1) to (17).

[For text of subitems (1) to (12), see M.R.]

(13) Hazardous wastes from commercial chemical products beginning with the letter S:

(a) P114, 12039-52-0, Selenious acid, dithallium(1+) salt;

(b) P103, 630-10-4, Selenourea;

(c) P104, 506-64-9, Silver cyanide;

(d) P104, 506-64-9, Silver cyanide Ag(CN);

(e) P105, 26628-22-8, Sodium azide;

(f) P106, 143-33-9, Sodium cyanide;

(g) P106, 143-33-9, Sodium cyanide Na(CN);

(h) P108, 57-24-9, Strychnidin-10-one, and salts;

(i) P018, 357-57-3, Strychnidin-10-one, 2,3-dimethoxy-;

(j) P108, 57-24-9, Strychnine and salts; and

(k) P115, 7446-18-6, Sulfuric acid, dithallium(I+) salt.

[For text of subitems (14) to (17), see M.R.]

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F. The commercial chemical products or manufacturing chemical intermediates, or off-specification commercial chemical products referred to in items A to D, and listed in subitems (1) to (24) are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, item A. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), R (reactivity), I (ignitability), and C (corrosivity). Absence of a letter indicates that the compound is listed only for toxicity. These wastes and their corresponding hazardous waste numbers, Chemical Abstract Service registry numbers, if available, and hazard codes are listed as follows:

[For text of subitems (1) to (8), see M.R.]

(9) Hazardous wastes from commercial chemical products beginning with the letter I:

(a) U116, 96-45-7, 2-Imidazolidinethione;

(b) U137, 193-39-5, Indeno[1,2,3cd]pyrene;

(c) U190, 85-44-9, 1,3-Isobenzofurandione;

(d) U140, 78-83-1, Isobutyl alcohol: (I,T); and

(e) U141, 120-58-1, Isosafrole.

[For text of subitems (10) to (24), see M.R.]

[For text of subp 5, see M.R.]

7045.0139 BASIS FOR LISTING HAZARDOUS WASTES.

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

Subp. 2. **Constituents.** The constituents which are the basis for listing the wastes identified in part 7045.0135, subparts 2 and 3 are listed in items A and B.

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

B. Constituents of wastes identified in part 7045.0135, subpart 3 are listed in subitems (1) to (95).

[For text of subitems (1) to (54), see M.R.]

(55) K064: Lead, cadmium;

(56) K065: Lead, cadmium;

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(57) K066: Lead, cadmium;

(58) K069: Hexavalent chromium, lead, cadmium;

(59) K071: Mercury;

(60) K073: Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane;

(61) K083: Aniline, diphenylamine, nitrobenzene, phenylenediamine;

(62) K084: Arsenic;

(63) K085: Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride;

(64) K086: Lead, hexavalent chromium;

(65) K087: Phenol, naphthalene;

(66) K088: Cyanide (complexes);

(67) K090: Chromium;

(68) K091: Chromium;

(69) K093: Phthalic anhydride, maleic anhydride;

(70) K094: Phthalic anhydride;

(71) K095: 1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane;

(72) K096: 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane;

(73) K097: Chlordane, heptachlor;

(74) K098: Toxaphene;

(75) K099: 2,4-dichlorophenol, 2,4,6-trichlorophenol;

(76) K100: Hexavalent chromium, lead, cadmium;

(77) K101: Arsenic;

(78) K102: Arsenic;

(79) K103: Aniline, nitrobenzene, phenylenediamine;

(80) K104: Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine;

(81) K105: Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol;

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(82) K106: Mercury;

(83) K111: 2,4-Dinitrotoluene;

(84) K112: 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline;

(85) K113: 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline;

(86) K114: 2,4-Toluenediamine, o-toluidine, p-toluidine;

(87) K115: 2,4-Toluenediamine;

(88) K116: Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene;

(89) K117: Ethylene dibromide;

(90) K118: Ethylene dibromide;

(91) K123: Ethylene thiourea;

(92) K124: Ethylene thiourea;

(93) K125: Ethylene thiourea;

(94) K126: Ethylene thiourea; and

(95) K136: Ethylene dibromide.

7045.0141 HAZARDOUS CONSTITUENTS.

[For text of subps 1 to 9, see M.R.]

Subp. 10. **"I" constituents.** Hazardous constituents beginning with the letter I are as follows:

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

B. Isobutyl alcohol, 78-83-1, U140;

C. Isodrin, 465-73-6, P060; and

D. Isosafrole, 120-58-1, U141.

[For text of subps 11 to 17, see M.R.]

Subp. 18. **"S" constituents.** Hazardous constituents beginning with the letter S are as follows:

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

O. Strychnine, 57-24-9, P108; and

P. Strychnine salts, _____, P108.

[For text of subps 19 to 23, see M.R.]

7045.0213 FARMERS; PESTICIDES.

A farmer who generates waste pesticides which are hazardous

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waste and who complies with all of the requirements of part 7045.0304 is not required with respect to those pesticides, to comply with other standards in parts 7045.0205 to 7045.0304 or to comply with parts 7045.0450 to 7045.1380, or to obtain a hazardous waste facility permit.

7045.0484 GROUNDWATER PROTECTION.

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

Subp. 3. **Groundwater protection standard.** The owner or operator shall comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents detected in the groundwater from a regulated unit do not exceed the concentration limits in the groundwater at and beyond the point of compliance during the compliance period. The agency shall establish the groundwater protection standard in the facility permit when hazardous constituents have been detected in the groundwater based on data provided by monitoring of the groundwater quality as specified in subparts 11 and 12.

[For text of subps 4 to 10, see M.R.]

Subp. 11. **General groundwater monitoring requirements.** The owner or operator shall comply with the requirements of items A to J for any groundwater monitoring program developed to satisfy subpart 12, 13, or 14:

A. The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield groundwater samples from groundwater that:

(1) represent the quality of background groundwater that has not been affected by leakage from a regulated unit;

(a) a determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

i. hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

ii. sampling at other wells will

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provide an indication of background groundwater quality that is representative or more representative than that provided by the upgradient wells; and

[For text of subitem (2), see M.R.]

(3) allow for the detection of potential contamination from the regulated unit.

[For text of items B to F, see M.R.]

G. In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit shall be collected from background wells and wells at the compliance points. The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to groundwater from a facility will be detected. The owner or operator shall determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which shall be specified in the facility permit upon approval by the agency. This sampling procedure shall be:

(1) a sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport characteristics of the potential contaminants; or

(2) an alternate sampling procedure proposed by the owner or operator and approved by the commissioner.

H. The owner or operator shall specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the commissioner, will be specified in the facility permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical, quantification limits are used in any of

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the following statistical procedures to comply with item I, subitem (5), the practical quantification limits must be proposed by the owner or operator and approved by the commissioner. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in item I.

(1) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) Another statistical test method submitted by the owner or operator and approved by the commissioner.

I. Any statistical method chosen under item H for specification in the facility permit shall comply with the following performance standards, as appropriate:

(1) The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be

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transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

(3) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the commissioner to be protective of human health and the environment.

(4) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be proposed by the owner or operator and subject to an approval by the agency to be protective of human health and the environment. These parameters will be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(5) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit approved by the commissioner which is used in the statistical method shall be the lowest concentration level that can be reliably achieved

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within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(6) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

J. Groundwater monitoring data collected in accordance with item G, including actual levels of constituents, must be maintained in the facility operating record. The agency shall specify in the permit when the data must be submitted for review.

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

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

C. The owner or operator shall conduct a groundwater monitoring program for each chemical parameter and hazardous constituent specified in the permit under item A in accordance with subpart 11, item G. The owner or operator shall maintain a record of groundwater analytical data as measured and in a form necessary for the determination of statistical significance under subpart 11, item H.

D. The agency shall specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit under item A in accordance with subpart 11, item G. A sequence of at least four samples from each well, background, and compliance wells, must be collected at least semiannually during detection monitoring.

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

F. The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter of hazardous constituent specified in the permit under item A at a frequency specified under item D.

(1) In determining whether statistically

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significant evidence of contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. These methods must compare data collected at the compliance points to the background groundwater quality data.

(2) The owner or operator must determine whether there is statistically significant evidence of contamination at each monitoring well as the compliance point within a reasonable period of time after completion of sampling. The agency shall specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of groundwater samples.

G. If the owner or operator determines under item F that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified under item A at any monitoring well at the compliance point, the owner or operator must:

(1) Notify the commissioner of this finding in writing within seven days. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination.

(2) Immediately sample the groundwater in all monitoring wells and determine whether constituents in the list of part 7045.0143 are present, and if so, in what concentration.

(3) For part 7045.0143 compounds found in the analysis under subitem (2), the owner or operator may resample within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents shall form the basis for compliance monitoring. If the owner or operator does not resample, the hazardous constituents found during this initial part 7045.0143 analysis shall form the basis for compliance monitoring.

(4) Within 90 days, submit to the commissioner an application for a permit modification to establish a compliance

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monitoring program meeting the requirements of subpart 13. The application must include the following information:

(a) an identification of the concentration or a part 7045.0143 constituent detected in the groundwater at each monitoring well at the compliance point;

(b) proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of subpart 13;

(c) proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of subpart 13; and

(d) for each hazardous constituent detected at the compliance point, a proposed concentration limit under subpart 6, item A or B, or a notice of intent to seek an alternate concentration limit under subpart 8.

(5) Within 180 days, submit to the commissioner all data necessary to justify an alternate concentration limit sought under subpart 8, and an engineering feasibility plan for a corrective action program necessary to meet the requirement of subpart 14, unless:

(a) all hazardous constituents identified under subitem (2), are listed in subpart 7 and their concentrations do not exceed the respective values given in that table; or

(b) the owner or operator has sought an alternate concentration limit under subpart 8 for every hazardous constituent identified under subitem (2).

(6) If the owner or operator determines, under item F, that there is a statistically significant difference for chemical parameters or hazardous constituents specified under item A at any monitoring well at the compliance point, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater.

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The owner or operator may make a demonstration under this paragraph in addition to, or in lieu of, submitting a permit modification application under subitem (4); however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in subitem (4) unless the demonstration made under this subitem successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration, the owner or operator shall:

(a) notify the commissioner in writing within seven days of determining statistically significant evidence of contamination at the compliance point that the owner or operator intends to make a demonstration under this subunit;

(b) within 90 days, submit a report to the commissioner which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from an error in sampling, analysis, or evaluation;

(c) within 90 days, submit to the commissioner an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

(d) continue to monitor in accordance with the detection monitoring program established under this subpart.

H. If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this subpart, the owner or operator must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

Subp. 13. **Compliance monitoring program.** An owner or operator required to establish a compliance monitoring program under this part shall perform the following:

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

C. The agency shall specify the sampling procedures and statistical methods appropriate for the constituents and the facility, consistent with subpart 11, items G and H as described

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in subitems (1) and (2).

(1) The owner or operator must conduct a sampling program for each chemical parameter or hazardous constituent in accordance with subpart 11, item G.

(2) The owner or operator must record groundwater analytical data as measured and in the form necessary for the determination of statistical significance under subpart 11, item H, for the compliance period of the facility.

D. The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, under item ~~e~~ A, at a frequency specified under item F.

(1) In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. The methods must compare data collected at the compliance points to a concentration limit developed in accordance with subpart 6.

(2) The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The agency will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities, to perform the analysis of groundwater samples.

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

F. The agency shall specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with subpart 11, item G. A sequence of at least four samples from each background and compliance well must be collected at least semiannually during the compliance period of the facility.

G. The owner or operator must analyze samples from

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all monitoring wells at the compliance point for all constituents contained in part 7045.0143 at least annually to determine whether additional hazardous constituents are present in the uppermost aquifer and, if so, at what concentration, according to procedures in subpart 12, item F. If the owner or operator finds part 7045.0143 constituents in the groundwater that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month and repeat the part 7045.0143 analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentration of these additional constituents to the commissioner within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then the owner or operator shall report the concentrations of these additional constituents to the commissioner within seven days after completion of the initial analysis and add them to the monitoring list.

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

I. If the owner or operator determines, under item G or H, that the groundwater protection standard is being exceeded at any monitoring well at the point of compliance, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, statistical evaluation, or natural variation in the groundwater. Until the owner or operator makes a demonstration, the owner or operator is not relieved of the requirement to submit a permit modification application if necessary to comply with item H within the time specified in item H, subitem (2) or of the requirement to institute corrective actions as established in item H, subitem (2). In making a demonstration, the owner or operator shall:

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

[For text of items J and K, see M.R.]

[For text of subp 14, see M.R.]

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7045.0488 CLOSURE ACTIVITIES.

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

Subp. 3. **Disposal or decontamination of equipment, structures, and soils.** During the partial and final closure periods, all contaminated facility equipment, structures, and soils must be properly disposed of or decontaminated unless otherwise specified in part 7045.0528, subpart 9; 7045.0532, subpart 7; 7045.0534, subpart 7; 7045.0536, subpart 8; or 7045.0538, subpart 7, or under the authority of part 7045.0539, subparts 2 and 4. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of parts 7045.0205 to 7045.0304.

[For text of subp 4, see M.R.]

7045.0528 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as part 7045.0450, and items A and B provide otherwise.

A. Tank systems that are used to store or treat hazardous waste that contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. Tank systems, including sumps, as defined in part 7045.0020, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempt from the requirements in subparts 4 and 5.

[For text of subps 2 and 3, see M.R.]

Subp. 4. **Containment and detection of releases.** The following requirements apply to the containment and detection of

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releases from tanks:

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

H. Ancillary equipment must be provided with secondary containment, such as trench, jacketing, or double walled piping, that meets the requirements of items B and C, except for:

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

(3) sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis; and

[For text of subitem (4), see M.R.]

[For text of subps 5 to 11, see M.R.]

7045.0596 CLOSURE ACTIVITIES.

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

Subp. 3. **Disposal or decontamination of equipment, structures, and soils.** During the partial and final closure periods, all contaminated facility equipment, structures, and soils must be properly disposed of or decontaminated, unless otherwise specified in part 7045.0628, subpart 9; 7045.0630, subpart 6; 7045.0632, subpart 7; 7045.0634, subpart 6; or 7045.0638, subpart 4. By removing any hazardous wastes or hazardous constituents during partial or final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of parts 7045.0205 to 7045.0304.

[For text of subp 4, see M.R.]

7045.0600 POST CLOSURE.

Subpart 1. **Scope.** This part and parts 7045.0602 to 7045.0606 apply to the owners and operators of all hazardous waste disposal facilities, including surface impoundments and waste piles from which the owner or operator intends to remove the wastes at closure, to the extent that the owner or operator is required to provide post closure care in part 7045.0630, subpart 6, or in part 7045.0632, subpart 7, and also tank systems that are required under part 7045.0628, subpart 9, to

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meet the requirements for landfills, except as provided otherwise in part 7045.0552.

[For text of subps 2 and 3, see M.R.]

7045.0628 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as items A and B and part 7045.0552 provide otherwise.

A. Tank systems that are used to store or treat hazardous waste containing no free liquids and that are located inside a building with an impermeable floor are exempt from the requirements of subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. Tank systems, including sumps, as defined in part 7045.0020 that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in subparts 4 and 5.

[For text of subps 2 and 3, see M.R.]

Subp. 4. **Containment and detection of releases.**

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

H. Ancillary equipment must be provided with full secondary containment, such as trench, jacketing, or double walled piping, that meets the requirements of items B and C, except for:

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

(3) sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

[For text of subitem (4), see M.R.]

[For text of subps 5 to 12, see M.R.]

7045.0629 REQUIREMENTS FOR SMALL QUANTITY GENERATORS THAT ACCUMULATE HAZARDOUS WASTE IN TANKS.

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

Subp. 3. **Inspections.** Small quantity generators must inspect, where present:

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

C. the level of waste in the tank at least once each operating day to ensure compliance with subpart 2, item C;

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

[For text of subps 4 to 6, see M.R.]

7100.0335 CERTIFICATE OF EXEMPTION REQUIRED.

Subpart 1. **Certification of exemption required.** Except as provided in subpart 2, no person may use, possess, sell, purchase, or manufacture PCB, a product containing PCB, or a class of products containing PCB without obtaining a certificate of exemption from the agency.

Subp. 2. **Exclusions.** The requirement to obtain a certification of exemption does not apply to the following uses or products:

A. any product containing PCB that was purchased or otherwise acquired by an individual person for consumer use in the home;

B. wastepaper, pulp, or other wood fiber materials purchased for use within this state in the manufacture of recycled paper products; and

C. any electrical ballast, capacitor, or transformer that contains less than one kilogram of PCB.

Subp. 3. **Certification of exemption by rule.** Any person who is required to obtain a certificate of exemption shall be considered to have obtained a certification of exemption without making application for it, if:

A. the person complies with the manufacturing, processing, distribution, use, disposal, storage, and labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761;

B. the person's eligibility to obtain or maintain a certification of exemption by rule has not been terminated under

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subpart 4; and

C. the person submits a written notification to the commissioner that explains the PCB activities the person will be conducting that require a certification of exemption.

The notification requirement in item C does not apply to a person who was issued a certification of exemption under part 7100.0340 and then had the certification of exemption terminated under part 7100.0340, subpart 21, item A.

Subp. 4. **Termination of eligibility for certification of exemption by rule.** The eligibility of a person to receive or maintain a certification of exemption by rule under subpart 3 is subject to termination by the agency after notice and opportunity for a public informational meeting or a contested case hearing if the agency makes any of the findings in items A to C. A person whose eligibility to be exempted by rule under subpart 3 has been terminated shall apply for and obtain an individual certification of exemption under these parts. The following findings constitute justification for the commissioner to commence proceedings to terminate eligibility:

A. that the person does not comply with the manufacturing, processing, distribution, use, disposal, storage, and labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761;

B. that the person is conducting other activities that are not regulated under the federal PCB program in Code of Federal Regulations, title 40, part 761, and are required to be covered by a certification of exemption; and

C. that under the circumstances, in order to protect human health or the environment, the person should be subject to the requirement to obtain an individual certification of exemption under these parts.

7100.0340 CERTIFICATE OF EXEMPTION.

[For text of subps 1 to 20, see M.R.]

Subp. 21. **Termination of certification of exemption.** A certificate of exemption is terminated and the terms and

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conditions of the certificate of exemption are no longer in force or effect under the following circumstances:

A. the person issued the certificate of exemption meets the requirements for a certification of exemption by rule in part 7100.0335, subpart 3; or

B. the person issued the certificate of exemption no longer uses, possesses, sells, purchases, or manufactures PCB, a product containing PCB, or a class of products containing PCB and has submitted a written notification to the commissioner stating this fact.

A person described in item B shall submit written notification to the commissioner within 30 days of stopping PCB activities that require a certificate of exemption.

7100.0350 LABELS.

Any person in this state who sells any item, product, or material which contains PCB shall comply with all of the labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761. The above labeling requirements do not apply to the uses or products excluded in part 7100.0335, subpart 2.

REPEALER. Minnesota Rules, part 7100.0360, is repealed.

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Pollution Control Agency

Adopted Permanent Rules Relating to Hazardous Waste and Polychlorinated Biphenyls

Rules as Adopted

7001.0700 HAZARDOUS WASTE THERMAL TREATMENT FACILITY PERMITS.

[For text of subps 1 to 10, see M.R.]

Subp. 11. **Requirements for existing hazardous waste thermal treatment facilities.** To determine the feasibility of compliance with the performance standards of part 7045.0542, subpart 4, and to determine adequate operating conditions under part 7045.0542, subpart 6, the applicant for a permit for an existing hazardous waste thermal treatment facility must prepare and submit to the commissioner a trial burn plan and perform a trial burn in accordance with subparts 3 to 8 and part 7001.0630, item B, or, instead, submit other information as specified in part 7001.0630, item C. Applicants submitting information under part 7001.0630, item A, are exempt from compliance with part 7045.0542, subparts 4 and 6, and, therefore, are exempt from the requirement to conduct a trial burn. An applicant who submits trial burn plans and who receives approval before submission of a permit application shall complete the trial burn and submit the results specified in subpart 6 with Part B of the permit application. Trial burn results must be submitted prior to issuance of the permit. If completion of this process conflicts with the date set for submission of the Part B application, the applicant shall contact the commissioner to establish a later date for the submission of the Part B application or trial burn results. When the applicant submits a trial burn plan with Part B of the permit application, the commissioner shall specify a time period prior to permit issuance in which the trial burn must be conducted and the results submitted.

7045.0020 DEFINITIONS.

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[For text of subps 1 to 15, see M.R.]

Subp. 15a. **Detect and detection.** "Detect" and "detection" refer to the finding of statistically significant evidence of contamination as described in part 7045.0484, subpart 12, item F.

[For text of subps 16 to 20, see M.R.]

Subp. 21. **Elementary neutralization unit.** "Elementary neutralization unit" means a device which:

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

B. meets the definition of tank, tank system, container, transport vehicle, or vessel.

[For text of subps 21a and 22, see M.R.]

Subp. 22a. **Exceed and exceeded.** "Exceed" and "exceeded" refer to the finding of statistically significant evidence of increased contamination as described in part 7045.0484, subpart 13, item D.

[For text of subps 23 to 102a, see M.R.]

Subp. 103. **Wastewater treatment unit.** "Wastewater treatment unit" means a device which:

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

C. meets the definition of "tank" as defined in subpart 90, or "tank system" as defined in subpart 90a.

[For text of subps 104 to 109, see M.R.]

7045.0120 EXEMPT WASTES.

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

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

I. waste from the extraction, beneficiation, and processing of ores and minerals, including coal, and including phosphate rock and overburden from the mining of uranium ore.

Solid waste from the processing of ores and minerals does not include:

(1) acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production;

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(2) surface impoundment solids contained in the dredged from surface impoundments at primary lead smelting facilities;

(3) sludge from treatment of process wastewater or acid plant blowdown from primary zinc production;

(4) spent potliners from primary aluminum reduction;

(5) emission control dust or sludge from ferrochromiumsilicon production; or

(6) emission control dust or sludge from ferrochromium production;

[For text of items J to P, see M.R.]

7045.0135 LISTS OF HAZARDOUS WASTES.

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

Subp. 3. **Hazardous waste from specific sources.** Hazardous wastes from specific sources are listed with the industry and hazardous waste number and hazard code in items A to Q.

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

I. Primary copper: K064, acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production: (T).

J. Primary lead: K065, surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities: (T).

K. Primary zinc: K066, sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production: (T).

L. Primary aluminum: K088, spent potliners from primary aluminum reduction: (T).

M. Ferroalloys:

(1) K090, emission control dust or sludge from ferrochromiumsilicon production: (T); and

(2) K091, emission control dust or sludge from ferrochromium production: (T).

N. Secondary lead:

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(1) K069, emission control dust or sludge from secondary lead smelting: (T); and

(2) K100, waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting: (T).

O. Veterinary pharmaceuticals:

(1) K084, wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T);

(2) K101, distillation tar residues from the distillation of aniline based compounds in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T); and

(3) K102, residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T).

P. Ink formulation: K086, solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, dryers, soaps, and stabilizers containing chromium and lead: (T).

Q. Coke:

(1) K060, ammonia still lime sludge from coking operations: (T); and

(2) K087, decanter tank tar sludge from coking operations: (T).

Subp. 4. **Discarded commercial chemical products, off specification species, containers, and spill residues.** The following materials or items are hazardous wastes when they are discarded or intended to be discarded as described in part 7045.0020, subpart 18; when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment; when they are otherwise applied to the land in lieu of their original intended use; when they are contained in products that are applied to the land in lieu of their original intended use; or when, in lieu of their

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original intended use, they are produced for use as, or as a component of a fuel, distributed for use as a fuel, or burned as a fuel.

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

E. the commercial chemical products or manufacturing chemical intermediates, or off specification commercial chemical products or manufacturing chemical intermediates referred to in items A to D and listed in subitems (1) to (17), are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, items B and C. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), and R (reactivity). Absence of a letter indicates that the compound is listed only for acute toxicity. These wastes and their corresponding hazardous waste numbers, Chemical Abstract Service registry numbers, if available, and hazard codes are listed in subitems (1) to (17).

[For text of subitems (1) to (12), see M.R.]

(13) Hazardous wastes from commercial chemical products beginning with the letter S:

(a) P114, 12039-52-0, Selenious acid, dithallium(1+) salt;

(b) P103, 630-10-4, Selenourea;

(c) P104, 506-64-9, Silver cyanide;

(d) P104, 506-64-9, Silver cyanide Ag(CN);

(e) P105, 26628-22-8, Sodium azide;

(f) P106, 143-33-9, Sodium cyanide;

(g) P106, 143-33-9, Sodium cyanide Na(CN);

(h) P108, 57-24-9, Strychnidin-10-one, and salts;

(i) P018, 357-57-3, Strychnidin-10-one, 2,3-dimethoxy-;

(j) P108, 57-24-9, Strychnine and salts; and

(k) P115, 7446-18-6, Sulfuric acid, dithallium(I+) salt.

[For text of subitems (14) to (17), see M.R.]

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F. The commercial chemical products or manufacturing chemical intermediates, or off-specification commercial chemical products referred to in items A to D, and listed in subitems (1) to (24) are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, item A. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), R (reactivity), I (ignitability), and C (corrosivity). Absence of a letter indicates that the compound is listed only for toxicity. These wastes and their corresponding hazardous waste numbers, Chemical Abstract Service registry numbers, if available, and hazard codes are listed as follows:

[For text of subitems (1) to (8), see M.R.]

(9) Hazardous wastes from commercial chemical products beginning with the letter I:

(a) U116, 96-45-7, 2-Imidazolidinethione;

(b) U137, 193-39-5, Indeno[1,2,3cd]pyrene;

(c) U190, 85-44-9, 1,3-Isobenzofurandione;

(d) U140, 78-83-1, Isobutyl alcohol: (I,T); and

(e) U141, 120-58-1, Isosafrole.

[For text of subitems (10) to (24), see M.R.]

[For text of subp 5, see M.R.]

7045.0139 BASIS FOR LISTING HAZARDOUS WASTES.

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

Subp. 2. **Constituents.** The constituents which are the basis for listing the wastes identified in part 7045.0135, subparts 2 and 3 are listed in items A and B.

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

B. Constituents of wastes identified in part 7045.0135, subpart 3 are listed in subitems (1) to (95).

[For text of subitems (1) to (54), see M.R.]

(55) K064: Lead, cadmium;

(56) K065: Lead, cadmium;

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(57) K066: Lead, cadmium;

(58) K069: Hexavalent chromium, lead, cadmium;

(59) K071: Mercury;

(60) K073: Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane;

(61) K083: Aniline, diphenylamine, nitrobenzene, phenylenediamine;

(62) K084: Arsenic;

(63) K085: Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride;

(64) K086: Lead, hexavalent chromium;

(65) K087: Phenol, naphthalene;

(66) K088: Cyanide (complexes);

(67) K090: Chromium;

(68) K091: Chromium;

(69) K093: Phthalic anhydride, maleic anhydride;

(70) K094: Phthalic anhydride;

(71) K095: 1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane;

(72) K096: 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane;

(73) K097: Chlordane, heptachlor;

(74) K098: Toxaphene;

(75) K099: 2,4-dichlorophenol, 2,4,6-trichlorophenol;

(76) K100: Hexavalent chromium, lead, cadmium;

(77) K101: Arsenic;

(78) K102: Arsenic;

(79) K103: Aniline, nitrobenzene, phenylenediamine;

(80) K104: Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine;

(81) K105: Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol;

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(82) K106: Mercury;

(83) K111: 2,4-Dinitrotoluene;

(84) K112: 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline;

(85) K113: 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline;

(86) K114: 2,4-Toluenediamine, o-toluidine, p-toluidine;

(87) K115: 2,4-Toluenediamine;

(88) K116: Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene;

(89) K117: Ethylene dibromide;

(90) K118: Ethylene dibromide;

(91) K123: Ethylene thiourea;

(92) K124: Ethylene thiourea;

(93) K125: Ethylene thiourea;

(94) K126: Ethylene thiourea; and

(95) K136: Ethylene dibromide.

7045.0141 HAZARDOUS CONSTITUENTS.

[For text of subps 1 to 9, see M.R.]

Subp. 10. **"I" constituents.** Hazardous constituents beginning with the letter I are as follows:

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

B. Isobutyl alcohol, 78-83-1, U140;

C. Isodrin, 465-73-6, P060; and

D. Isosafrole, 120-58-1, U141.

[For text of subps 11 to 17, see M.R.]

Subp. 18. **"S" constituents.** Hazardous constituents beginning with the letter S are as follows:

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

O. Strychnine, 57-24-9, P108; and

P. Strychnine salts, _____, P108.

[For text of subps 19 to 23, see M.R.]

7045.0213 FARMERS; PESTICIDES.

A farmer who generates waste pesticides which are hazardous

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waste and who complies with all of the requirements of part 7045.0304 is not required with respect to those pesticides, to comply with other standards in parts 7045.0205 to 7045.0304 or to comply with parts 7045.0450 to 7045.1380, or to obtain a hazardous waste facility permit.

7045.0484 GROUNDWATER PROTECTION.

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

Subp. 3. **Groundwater protection standard.** The owner or operator shall comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents detected in the groundwater from a regulated unit do not exceed the concentration limits in the groundwater at and beyond the point of compliance during the compliance period. The agency shall establish the groundwater protection standard in the facility permit when hazardous constituents have been detected in the groundwater based on data provided by monitoring of the groundwater quality as specified in subparts 11 and 12.

[For text of subps 4 to 10, see M.R.]

Subp. 11. **General groundwater monitoring requirements.** The owner or operator shall comply with the requirements of items A to J for any groundwater monitoring program developed to satisfy subpart 12, 13, or 14:

A. The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield groundwater samples from groundwater that:

(1) represent the quality of background groundwater that has not been affected by leakage from a regulated unit;

(a) a determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

i. hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

ii. sampling at other wells will

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provide an indication of background groundwater quality that is representative or more representative than that provided by the upgradient wells; and

[For text of subitem (2), see M.R.]

(3) allow for the detection of potential contamination from the regulated unit.

[For text of items B to F, see M.R.]

G. In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit shall be collected from background wells and wells at the compliance points. The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to groundwater from a facility will be detected. The owner or operator shall determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which shall be specified in the facility permit upon approval by the agency. This sampling procedure shall be:

(1) a sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport characteristics of the potential contaminants; or

(2) an alternate sampling procedure proposed by the owner or operator and approved by the commissioner.

H. The owner or operator shall specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the commissioner, will be specified in the facility permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical quantification limits are used in any of

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the following statistical procedures to comply with item I, subitem (5), the practical quantification limits must be proposed by the owner or operator and approved by the commissioner. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in item I.

(1) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) Another statistical test method submitted by the owner or operator and approved by the commissioner.

I. Any statistical method chosen under item H for specification in the facility permit shall comply with the following performance standards, as appropriate:

(1) The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be

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transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

(3) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the commissioner to be protective of human health and the environment.

(4) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be proposed by the owner or operator and subject to an approval by the agency to be protective of human health and the environment. These parameters will be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(5) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit approved by the commissioner which is used in the statistical method shall be the lowest concentration level that can be reliably achieved

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within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(6) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

J. Groundwater monitoring data collected in accordance with item G, including actual levels of constituents, must be maintained in the facility operating record. The agency shall specify in the permit when the data must be submitted for review.

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

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

C. The owner or operator shall conduct a groundwater monitoring program for each chemical parameter and hazardous constituent specified in the permit under item A in accordance with subpart 11, item G. The owner or operator shall maintain a record of groundwater analytical data as measured and in a form necessary for the determination of statistical significance under subpart 11, item H.

D. The agency shall specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit under item A in accordance with subpart 11, item G. A sequence of at least four samples from each well, background, and compliance wells, must be collected at least semiannually during detection monitoring.

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

F. The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter of hazardous constituent specified in the permit under item A at a frequency specified under item D.

(1) In determining whether statistically

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significant evidence of contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. These methods must compare data collected at the compliance points to the background groundwater quality data.

(2) The owner or operator must determine whether there is statistically significant evidence of contamination at each monitoring well as the compliance point within a reasonable period of time after completion of sampling. The agency shall specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of groundwater samples.

G. If the owner or operator determines under item F that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified under item A at any monitoring well at the compliance point, the owner or operator must:

(1) Notify the commissioner of this finding in writing within seven days. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination.

(2) Immediately sample the groundwater in all monitoring wells and determine whether constituents in the list of part 7045.0143 are present, and if so, in what concentration.

(3) For part 7045.0143 compounds found in the analysis under subitem (2), the owner or operator may resample within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents shall form the basis for compliance monitoring. If the owner or operator does not resample, the hazardous constituents found during this initial part 7045.0143 analysis shall form the basis for compliance monitoring.

(4) Within 90 days, submit to the commissioner an application for a permit modification to establish a compliance

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monitoring program meeting the requirements of subpart 13. The application must include the following information:

(a) an identification of the concentration or a part 7045.0143 constituent detected in the groundwater at each monitoring well at the compliance point;

(b) proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of subpart 13;

(c) proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of subpart 13; and

(d) for each hazardous constituent detected at the compliance point, a proposed concentration limit under subpart 6, item A or B, or a notice of intent to seek an alternate concentration limit under subpart 8.

(5) Within 180 days, submit to the commissioner all data necessary to justify an alternate concentration limit sought under subpart 8, and an engineering feasibility plan for a corrective action program necessary to meet the requirement of subpart 14, unless:

(a) all hazardous constituents identified under subitem (2), are listed in subpart 7 and their concentrations do not exceed the respective values given in that table; or

(b) the owner or operator has sought an alternate concentration limit under subpart 8 for every hazardous constituent identified under subitem (2).

(6) If the owner or operator determines, under item F, that there is a statistically significant difference for chemical parameters or hazardous constituents specified under item A at any monitoring well at the compliance point, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater.

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The owner or operator may make a demonstration under this paragraph in addition to, or in lieu of, submitting a permit modification application under subitem (4); however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in subitem (4) unless the demonstration made under this subitem successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration, the owner or operator shall:

(a) notify the commissioner in writing within seven days of determining statistically significant evidence of contamination at the compliance point that the owner or operator intends to make a demonstration under this subunit;

(b) within 90 days, submit a report to the commissioner which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from an error in sampling, analysis, or evaluation;

(c) within 90 days, submit to the commissioner an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

(d) continue to monitor in accordance with the detection monitoring program established under this subpart.

H. If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this subpart, the owner or operator must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

Subp. 13. **Compliance monitoring program.** An owner or operator required to establish a compliance monitoring program under this part shall perform the following:

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

C. The agency shall specify the sampling procedures and statistical methods appropriate for the constituents and the facility, consistent with subpart 11, items G and H as described

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in subitems (1) and (2).

(1) The owner or operator must conduct a sampling program for each chemical parameter or hazardous constituent in accordance with subpart 11, item G.

(2) The owner or operator must record groundwater analytical data as measured and in the form necessary for the determination of statistical significance under subpart 11, item H, for the compliance period of the facility.

D. The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, under item ~~C~~ A, at a frequency specified under item F.

(1) In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. The methods must compare data collected at the compliance points to a concentration limit developed in accordance with subpart 6.

(2) The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The agency will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities, to perform the analysis of groundwater samples.

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

F. The agency shall specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with subpart 11, item G. A sequence of at least four samples from each background and compliance well must be collected at least semiannually during the compliance period of the facility.

G. The owner or operator must analyze samples from

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all monitoring wells at the compliance point for all constituents contained in part 7045.0143 at least annually to determine whether additional hazardous constituents are present in the uppermost aquifer and, if so, at what concentration, according to procedures in subpart 12, item F. If the owner or operator finds part 7045.0143 constituents in the groundwater that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month and repeat the part 7045.0143 analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentration of these additional constituents to the commissioner within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then the owner or operator shall report the concentrations of these additional constituents to the commissioner within seven days after completion of the initial analysis and add them to the monitoring list.

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

I. If the owner or operator determines, under item G or H, that the groundwater protection standard is being exceeded at any monitoring well at the point of compliance, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, statistical evaluation, or natural variation in the groundwater. Until the owner or operator makes a demonstration, the owner or operator is not relieved of the requirement to submit a permit modification application if necessary to comply with item H within the time specified in item H, subitem (2) or of the requirement to institute corrective actions as established in item H, subitem (2). In making a demonstration, the owner or operator shall:

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

[For text of items J and K, see M.R.]

[For text of subp 14, see M.R.]

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7045.0488 CLOSURE ACTIVITIES.

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

Subp. 3. **Disposal or decontamination of equipment, structures, and soils.** During the partial and final closure periods, all contaminated facility equipment, structures, and soils must be properly disposed of or decontaminated unless otherwise specified in part 7045.0528, subpart 9; 7045.0532, subpart 7; 7045.0534, subpart 7; 7045.0536, subpart 8; or 7045.0538, subpart 7, or under the authority of part 7045.0539, subparts 2 and 4. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of parts 7045.0205 to 7045.0304.

[For text of subp 4, see M.R.]

7045.0528 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. Scope. This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as part 7045.0450, and items A and B provide otherwise.

A. Tank systems that are used to store or treat hazardous waste that contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. Tank systems, including sumps, as defined in part 7045.0020, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempt from the requirements in subparts 4 and 5.

[For text of subps 2 and 3, see M.R.]

Subp. 4. **Containment and detection of releases.** The following requirements apply to the containment and detection of

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releases from tanks:

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

H. Ancillary equipment must be provided with secondary containment, such as trench, jacketing, or double walled piping, that meets the requirements of items B and C, except for:

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

(3) sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis; and

[For text of subitem (4), see M.R.]

[For text of subps 5 to 11, see M.R.]

7045.0596 CLOSURE ACTIVITIES.

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

Subp. 3. **Disposal or decontamination of equipment, structures, and soils.** During the partial and final closure periods, all contaminated facility equipment, structures, and soils must be properly disposed of or decontaminated, unless otherwise specified in part 7045.0628, subpart 9; 7045.0630, subpart 6; 7045.0632, subpart 7; 7045.0634, subpart 6; or 7045.0638, subpart 4. By removing any hazardous wastes or hazardous constituents during partial or final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of parts 7045.0205 to 7045.0304.

[For text of subp 4, see M.R.]

7045.0600 POST CLOSURE.

Subpart 1. **Scope.** This part and parts 7045.0602 to 7045.0606 apply to the owners and operators of all hazardous waste disposal facilities, including surface impoundments and waste piles from which the owner or operator intends to remove the wastes at closure, to the extent that the owner or operator is required to provide post closure care in part 7045.0630, subpart 6, or in part 7045.0632, subpart 7, and also tank systems that are required under part 7045.0628, subpart 9, to

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meet the requirements for landfills, except as provided otherwise in part 7045.0552.

[For text of subps 2 and 3, see M.R.]

7045.0628 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. Scope. This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as items A and B and part 7045.0552 provide otherwise.

A. Tank systems that are used to store or treat hazardous waste containing no free liquids and that are located inside a building with an impermeable floor are exempt from the requirements of subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. Tank systems, including sumps, as defined in part 7045.0020 that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in subparts 4 and 5.

[For text of subps 2 and 3, see M.R.]

Subp. 4. **Containment and detection of releases.**

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

H. Ancillary equipment must be provided with full secondary containment, such as trench, jacketing, or double walled piping, that meets the requirements of items B and C, except for:

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

(3) sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

[For text of subitem (4), see M.R.]

[For text of subps 5 to 12, see M.R.]

7045.0629 REQUIREMENTS FOR SMALL QUANTITY GENERATORS THAT ACCUMULATE HAZARDOUS WASTE IN TANKS.

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

Subp. 3. **Inspections.** Small quantity generators must inspect, where present:

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

C. the level of waste in the tank at least once each operating day to ensure compliance with subpart 2, item C;

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

[For text of subps 4 to 6, see M.R.]

7100.0335 CERTIFICATE OF EXEMPTION REQUIRED.

Subpart 1. **Certification of exemption required.** Except as provided in subpart 2, no person may use, possess, sell, purchase, or manufacture PCB, a product containing PCB, or a class of products containing PCB without obtaining a certificate of exemption from the agency.

Subp. 2. **Exclusions.** The requirement to obtain a certification of exemption does not apply to the following uses or products:

A. any product containing PCB that was purchased or otherwise acquired by an individual person for consumer use in the home;

B. wastepaper, pulp, or other wood fiber materials purchased for use within this state in the manufacture of recycled paper products; and

C. any electrical ballast, capacitor, or transformer that contains less than one kilogram of PCB.

Subp. 3. **Certification of exemption by rule.** Any person who is required to obtain a certificate of exemption shall be considered to have obtained a certification of exemption without making application for it, if:

A. the person complies with the manufacturing, processing, distribution, use, disposal, storage, and labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761;

B. the person's eligibility to obtain or maintain a certification of exemption by rule has not been terminated under

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subpart 4; and

C. the person submits a written notification to the commissioner that explains the PCB activities the person will be conducting that require a certification of exemption.

The notification requirement in item C does not apply to a person who was issued a certification of exemption under part 7100.0340 and then had the certification of exemption terminated under part 7100.0340, subpart 21, item A.

Subp. 4. Termination of eligibility for certification of exemption by rule. The eligibility of a person to receive or maintain a certification of exemption by rule under subpart 3 is subject to termination by the agency after notice and opportunity for a public informational meeting or a contested case hearing if the agency makes any of the findings in items A to C. A person whose eligibility to be exempted by rule under subpart 3 has been terminated shall apply for and obtain an individual certification of exemption under these parts. The following findings constitute justification for the commissioner to commence proceedings to terminate eligibility:

A. that the person does not comply with the manufacturing, processing, distribution, use, disposal, storage, and labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761;

B. that the person is conducting other activities that are not regulated under the federal PCB program in Code of Federal Regulations, title 40, part 761, and are required to be covered by a certification of exemption; and

C. that under the circumstances, in order to protect human health or the environment, the person should be subject to the requirement to obtain an individual certification of exemption under these parts.

7100.0340 CERTIFICATE OF EXEMPTION.

[For text of subps 1 to 20, see M.R.]

Subp. 21. Termination of certification of exemption. A certificate of exemption is terminated and the terms and

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conditions of the certificate of exemption are no longer in force or effect under the following circumstances:

A. the person issued the certificate of exemption meets the requirements for a certification of exemption by rule in part 7100.0335, subpart 3; or

B. the person issued the certificate of exemption no longer uses, possesses, sells, purchases, or manufactures PCB, a product containing PCB, or a class of products containing PCB and has submitted a written notification to the commissioner stating this fact.

A person described in item B shall submit written notification to the commissioner within 30 days of stopping PCB activities that require a certificate of exemption.

7100.0350 LABELS.

Any person in this state who sells any item, product, or material which contains PCB shall comply with all of the labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761. The above labeling requirements do not apply to the uses or products excluded in part 7100.0335, subpart 2.

REPEALER. Minnesota Rules, part 7100.0360, is repealed.

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Pollution Control Agency

Adopted Permanent Rules Relating to Hazardous Waste and Polychlorinated Biphenyls

Rules as Adopted

7001.0700 HAZARDOUS WASTE THERMAL TREATMENT FACILITY PERMITS.

[For text of subps 1 to 10, see M.R.]

Subp. 11. **Requirements for existing hazardous waste thermal treatment facilities.** To determine the feasibility of compliance with the performance standards of part 7045.0542, subpart 4, and to determine adequate operating conditions under part 7045.0542, subpart 6, the applicant for a permit for an existing hazardous waste thermal treatment facility must prepare and submit to the commissioner a trial burn plan and perform a trial burn in accordance with subparts 3 to 8 and part 7001.0630, item B, or, instead, submit other information as specified in part 7001.0630, item C. Applicants submitting information under part 7001.0630, item A, are exempt from compliance with part 7045.0542, subparts 4 and 6, and, therefore, are exempt from the requirement to conduct a trial burn. An applicant who submits trial burn plans and who receives approval before submission of a permit application shall complete the trial burn and submit the results specified in subpart 6 with Part B of the permit application. Trial burn results must be submitted prior to issuance of the permit. If completion of this process conflicts with the date set for submission of the Part B application, the applicant shall contact the commissioner to establish a later date for the submission of the Part B application or trial burn results. When the applicant submits a trial burn plan with Part B of the permit application, the commissioner shall specify a time period prior to permit issuance in which the trial burn must be conducted and the results submitted.

7045.0020 DEFINITIONS.

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[For text of subps 1 to 15, see M.R.]

Subp. 15a. Detect and detection. "Detect" and "detection" refer to the finding of statistically significant evidence of contamination as described in part 7045.0484, subpart 12, item F.

[For text of subps 16 to 20, see M.R.]

Subp. 21. Elementary neutralization unit. "Elementary neutralization unit" means a device which:

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

B. meets the definition of tank, tank system, container, transport vehicle, or vessel.

[For text of subps 21a and 22, see M.R.]

Subp. 22a. Exceed and exceeded. "Exceed" and "exceeded" refer to the finding of statistically significant evidence of increased contamination as described in part 7045.0484, subpart 13, item D.

[For text of subps 23 to 102a, see M.R.]

Subp. 103. Wastewater treatment unit. "Wastewater treatment unit" means a device which:

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

C. meets the definition of "tank" as defined in subpart 90, or "tank system" as defined in subpart 90a.

[For text of subps 104 to 109, see M.R.]

7045.0120 EXEMPT WASTES.

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

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

I. waste from the extraction, beneficiation, and processing of ores and minerals, including coal, and including phosphate rock and overburden from the mining of uranium ore.

Solid waste from the processing of ores and minerals does not include:

(1) acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production;

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(2) surface impoundment solids contained in the dredged from surface impoundments at primary lead smelting facilities;

(3) sludge from treatment of process wastewater or acid plant blowdown from primary zinc production;

(4) spent potliners from primary aluminum reduction;

(5) emission control dust or sludge from ferrochromiumsilicon production; or

(6) emission control dust or sludge from ferrochromium production;

[For text of items J to P, see M.R.]

7045.0135 LISTS OF HAZARDOUS WASTES.

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

Subp. 3. **Hazardous waste from specific sources.** Hazardous wastes from specific sources are listed with the industry and hazardous waste number and hazard code in items A to Q.

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

I. Primary copper: K064, acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production: (T).

J. Primary lead: K065, surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities: (T).

K. Primary zinc: K066, sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production: (T).

L. Primary aluminum: K088, spent potliners from primary aluminum reduction: (T).

M. Ferroalloys:

(1) K090, emission control dust or sludge from ferrochromiumsilicon production: (T); and

(2) K091, emission control dust or sludge from ferrochromium production: (T).

N. Secondary lead:

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(1) K069, emission control dust or sludge from secondary lead smelting: (T); and

(2) K100, waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting: (T).

O. Veterinary pharmaceuticals:

(1) K084, wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T);

(2) K101, distillation tar residues from the distillation of aniline based compounds in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T); and

(3) K102, residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T).

P. Ink formulation: K086, solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, dryers, soaps, and stabilizers containing chromium and lead: (T).

Q. Coke:

(1) K060, ammonia still lime sludge from coking operations: (T); and

(2) K087, decanter tank tar sludge from coking operations: (T).

Subp. 4. Discarded commercial chemical products, off specification species, containers, and spill residues. The following materials or items are hazardous wastes when they are discarded or intended to be discarded as described in part 7045.0020, subpart 18; when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment; when they are otherwise applied to the land in lieu of their original intended use; when they are contained in products that are applied to the land in lieu of their original intended use; or when, in lieu of their

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original intended use, they are produced for use as, or as a component of a fuel, distributed for use as a fuel, or burned as a fuel.

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

E. the commercial chemical products or manufacturing chemical intermediates, or off specification commercial chemical products or manufacturing chemical intermediates referred to in items A to D and listed in subitems (1) to (17), are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, items B and C. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), and R (reactivity). Absence of a letter indicates that the compound is listed only for acute toxicity. These wastes and their corresponding hazardous waste numbers, Chemical Abstract Service registry numbers, if available, and hazard codes are listed in subitems (1) to (17).

[For text of subitems (1) to (12), see M.R.]

(13) Hazardous wastes from commercial chemical products beginning with the letter S:

(a) P114, 12039-52-0, Selenious acid, dithallium(1+) salt;

(b) P103, 630-10-4, Selenourea;

(c) P104, 506-64-9, Silver cyanide;

(d) P104, 506-64-9, Silver cyanide Ag(CN);

(e) P105, 26628-22-8, Sodium azide;

(f) P106, 143-33-9, Sodium cyanide;

(g) P106, 143-33-9, Sodium cyanide Na(CN);

(h) P108, 57-24-9, Strychnidin-10-one, and salts;

(i) P018, 357-57-3, Strychnidin-10-one, 2,3-dimethoxy-;

(j) P108, 57-24-9, Strychnine and salts; and

(k) P115, 7446-18-6, Sulfuric acid, dithallium(I+) salt.

[For text of subitems (14) to (17), see M.R.]

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F. The commercial chemical products or manufacturing chemical intermediates, or off-specification commercial chemical products referred to in items A to D, and listed in subitems (1) to (24) are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, item A. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), R (reactivity), I (ignitability), and C (corrosivity). Absence of a letter indicates that the compound is listed only for toxicity. These wastes and their corresponding hazardous waste numbers, Chemical Abstract Service registry numbers, if available, and hazard codes are listed as follows:

[For text of subitems (1) to (8), see M.R.]

(9) Hazardous wastes from commercial chemical products beginning with the letter I:

(a) U116, 96-45-7, 2-Imidazolidinethione;

(b) U137, 193-39-5, Indeno[1,2,3cd]pyrene;

(c) U190, 85-44-9, 1,3-Isobenzofurandione;

(d) U140, 78-83-1, Isobutyl alcohol: (I,T); and

(e) U141, 120-58-1, Isosafrole.

[For text of subitems (10) to (24), see M.R.]

[For text of subp 5, see M.R.]

7045.0139 BASIS FOR LISTING HAZARDOUS WASTES.

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

Subp. 2. Constituents. The constituents which are the basis for listing the wastes identified in part 7045.0135, subparts 2 and 3 are listed in items A and B.

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

B. Constituents of wastes identified in part 7045.0135, subpart 3 are listed in subitems (1) to (95).

[For text of subitems (1) to (54), see M.R.]

(55) K064: Lead, cadmium;

(56) K065: Lead, cadmium;

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(57) K066: Lead, cadmium;

(58) K069: Hexavalent chromium, lead, cadmium;

(59) K071: Mercury;

(60) K073: Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane;

(61) K083: Aniline, diphenylamine, nitrobenzene, phenylenediamine;

(62) K084: Arsenic;

(63) K085: Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride;

(64) K086: Lead, hexavalent chromium;

(65) K087: Phenol, naphthalene;

(66) K088: Cyanide (complexes);

(67) K090: Chromium;

(68) K091: Chromium;

(69) K093: Phthalic anhydride, maleic anhydride;

(70) K094: Phthalic anhydride;

(71) K095: 1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane;

(72) K096: 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane;

(73) K097: Chlordane, heptachlor;

(74) K098: Toxaphene;

(75) K099: 2,4-dichlorophenol, 2,4,6-trichlorophenol;

(76) K100: Hexavalent chromium, lead, cadmium;

(77) K101: Arsenic;

(78) K102: Arsenic;

(79) K103: Aniline, nitrobenzene, phenylenediamine;

(80) K104: Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine;

(81) K105: Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol;

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(82) K106: Mercury;

(83) K111: 2,4-Dinitrotoluene;

(84) K112: 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline;

(85) K113: 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline;

(86) K114: 2,4-Toluenediamine, o-toluidine, p-toluidine;

(87) K115: 2,4-Toluenediamine;

(88) K116: Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene;

(89) K117: Ethylene dibromide;

(90) K118: Ethylene dibromide;

(91) K123: Ethylene thiourea;

(92) K124: Ethylene thiourea;

(93) K125: Ethylene thiourea;

(94) K126: Ethylene thiourea; and

(95) K136: Ethylene dibromide.

7045.0141 HAZARDOUS CONSTITUENTS.

[For text of subps 1 to 9, see M.R.]

Subp. 10. **"I" constituents.** Hazardous constituents beginning with the letter I are as follows:

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

B. Isobutyl alcohol, 78-83-1, U140;

C. Isodrin, 465-73-6, P060; and

D. Isosafrole, 120-58-1, U141.

[For text of subps 11 to 17, see M.R.]

Subp. 18. **"S" constituents.** Hazardous constituents beginning with the letter S are as follows:

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

O. Strychnine, 57-24-9, P108; and

P. Strychnine salts, _____, P108.

[For text of subps 19 to 23, see M.R.]

7045.0213 FARMERS; PESTICIDES.

A farmer who generates waste pesticides which are hazardous

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waste and who complies with all of the requirements of part 7045.0304 is not required with respect to those pesticides, to comply with other standards in parts 7045.0205 to 7045.0304 or to comply with parts 7045.0450 to 7045.1380, or to obtain a hazardous waste facility permit.

7045.0484 GROUNDWATER PROTECTION.

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

Subp. 3. **Groundwater protection standard.** The owner or operator shall comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents detected in the groundwater from a regulated unit do not exceed the concentration limits in the groundwater at and beyond the point of compliance during the compliance period. The agency shall establish the groundwater protection standard in the facility permit when hazardous constituents have been detected in the groundwater based on data provided by monitoring of the groundwater quality as specified in subparts 11 and 12.

[For text of subps 4 to 10, see M.R.]

Subp. 11. **General groundwater monitoring requirements.** The owner or operator shall comply with the requirements of items A to J for any groundwater monitoring program developed to satisfy subpart 12, 13, or 14:

A. The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield groundwater samples from groundwater that:

(1) represent the quality of background groundwater that has not been affected by leakage from a regulated unit;

(a) a determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

i. hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

ii. sampling at other wells will

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provide an indication of background groundwater quality that is representative or more representative than that provided by the upgradient wells; and

[For text of subitem (2), see M.R.]

(3) allow for the detection of potential contamination from the regulated unit.

[For text of items B to F, see M.R.]

G. In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit shall be collected from background wells and wells at the compliance points. The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to groundwater from a facility will be detected. The owner or operator shall determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which shall be specified in the facility permit upon approval by the agency. This sampling procedure shall be:

(1) a sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport characteristics of the potential contaminants; or

(2) an alternate sampling procedure proposed by the owner or operator and approved by the commissioner.

H. The owner or operator shall specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the commissioner, will be specified in the facility permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical, quantification limits are used in any of

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the following statistical procedures to comply with item I, subitem (5), the practical quantification limits must be proposed by the owner or operator and approved by the commissioner. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in item I.

(1) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) Another statistical test method submitted by the owner or operator and approved by the commissioner.

I. Any statistical method chosen under item H for specification in the facility permit shall comply with the following performance standards, as appropriate:

(1) The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be

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transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

(3) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the commissioner to be protective of human health and the environment.

(4) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be proposed by the owner or operator and subject to an approval by the agency to be protective of human health and the environment. These parameters will be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(5) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit approved by the commissioner which is used in the statistical method shall be the lowest concentration level that can be reliably achieved

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within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(6) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

J. Groundwater monitoring data collected in accordance with item G, including actual levels of constituents, must be maintained in the facility operating record. The agency shall specify in the permit when the data must be submitted for review.

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

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

C. The owner or operator shall conduct a groundwater monitoring program for each chemical parameter and hazardous constituent specified in the permit under item A in accordance with subpart 11, item G. The owner or operator shall maintain a record of groundwater analytical data as measured and in a form necessary for the determination of statistical significance under subpart 11, item H.

D. The agency shall specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit under item A in accordance with subpart 11, item G. A sequence of at least four samples from each well, background, and compliance wells, must be collected at least semiannually during detection monitoring.

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

F. The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter of hazardous constituent specified in the permit under item A at a frequency specified under item D.

(1) In determining whether statistically

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significant evidence of contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. These methods must compare data collected at the compliance points to the background groundwater quality data.

(2) The owner or operator must determine whether there is statistically significant evidence of contamination at each monitoring well as the compliance point within a reasonable period of time after completion of sampling. The agency shall specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of groundwater samples.

G. If the owner or operator determines under item F that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified under item A at any monitoring well at the compliance point, the owner or operator must:

(1) Notify the commissioner of this finding in writing within seven days. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination.

(2) Immediately sample the groundwater in all monitoring wells and determine whether constituents in the list of part 7045.0143 are present, and if so, in what concentration.

(3) For part 7045.0143 compounds found in the analysis under subitem (2), the owner or operator may resample within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents shall form the basis for compliance monitoring. If the owner or operator does not resample, the hazardous constituents found during this initial part 7045.0143 analysis shall form the basis for compliance monitoring.

(4) Within 90 days, submit to the commissioner an application for a permit modification to establish a compliance

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monitoring program meeting the requirements of subpart 13. The application must include the following information:

(a) an identification of the concentration or a part 7045.0143 constituent detected in the groundwater at each monitoring well at the compliance point;

(b) proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of subpart 13;

(c) proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of subpart 13; and

(d) for each hazardous constituent detected at the compliance point, a proposed concentration limit under subpart 6, item A or B, or a notice of intent to seek an alternate concentration limit under subpart 8.

(5) Within 180 days, submit to the commissioner all data necessary to justify an alternate concentration limit sought under subpart 8, and an engineering feasibility plan for a corrective action program necessary to meet the requirement of subpart 14, unless:

(a) all hazardous constituents identified under subitem (2), are listed in subpart 7 and their concentrations do not exceed the respective values given in that table; or

(b) the owner or operator has sought an alternate concentration limit under subpart 8 for every hazardous constituent identified under subitem (2).

(6) If the owner or operator determines, under item F, that there is a statistically significant difference for chemical parameters or hazardous constituents specified under item A at any monitoring well at the compliance point, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater.

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The owner or operator may make a demonstration under this paragraph in addition to, or in lieu of, submitting a permit modification application under subitem (4); however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in subitem (4) unless the demonstration made under this subitem successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration, the owner or operator shall:

(a) notify the commissioner in writing within seven days of determining statistically significant evidence of contamination at the compliance point that the owner or operator intends to make a demonstration under this subunit;

(b) within 90 days, submit a report to the commissioner which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from an error in sampling, analysis, or evaluation;

(c) within 90 days, submit to the commissioner an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

(d) continue to monitor in accordance with the detection monitoring program established under this subpart.

H. If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this subpart, the owner or operator must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

Subp. 13. **Compliance monitoring program.** An owner or operator required to establish a compliance monitoring program under this part shall perform the following:

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

C. The agency shall specify the sampling procedures and statistical methods appropriate for the constituents and the facility, consistent with subpart 11, items G and H as described

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in subitems (1) and (2).

(1) The owner or operator must conduct a sampling program for each chemical parameter or hazardous constituent in accordance with subpart 11, item G.

(2) The owner or operator must record groundwater analytical data as measured and in the form necessary for the determination of statistical significance under subpart 11, item H, for the compliance period of the facility.

D. The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, under item ~~C~~ A, at a frequency specified under item F.

(1) In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. The methods must compare data collected at the compliance points to a concentration limit developed in accordance with subpart 6.

(2) The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The agency will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities, to perform the analysis of groundwater samples.

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

F. The agency shall specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with subpart 11, item G. A sequence of at least four samples from each background and compliance well must be collected at least semiannually during the compliance period of the facility.

G. The owner or operator must analyze samples from

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all monitoring wells at the compliance point for all constituents contained in part 7045.0143 at least annually to determine whether additional hazardous constituents are present in the uppermost aquifer and, if so, at what concentration, according to procedures in subpart 12, item F. If the owner or operator finds part 7045.0143 constituents in the groundwater that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month and repeat the part 7045.0143 analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentration of these additional constituents to the commissioner within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then the owner or operator shall report the concentrations of these additional constituents to the commissioner within seven days after completion of the initial analysis and add them to the monitoring list.

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

I. If the owner or operator determines, under item G or H, that the groundwater protection standard is being exceeded at any monitoring well at the point of compliance, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, statistical evaluation, or natural variation in the groundwater. Until the owner or operator makes a demonstration, the owner or operator is not relieved of the requirement to submit a permit modification application if necessary to comply with item H within the time specified in item H, subitem (2) or of the requirement to institute corrective actions as established in item H, subitem (2). In making a demonstration, the owner or operator shall:

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

[For text of items J and K, see M.R.]

[For text of subp 14, see M.R.]

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7045.0488 CLOSURE ACTIVITIES.

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

Subp. 3. **Disposal or decontamination of equipment, structures, and soils.** During the partial and final closure periods, all contaminated facility equipment, structures, and soils must be properly disposed of or decontaminated unless otherwise specified in part 7045.0528, subpart 9; 7045.0532, subpart 7; 7045.0534, subpart 7; 7045.0536, subpart 8; or 7045.0538, subpart 7, or under the authority of part 7045.0539, subparts 2 and 4. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of parts 7045.0205 to 7045.0304.

[For text of subp 4, see M.R.]

7045.0528 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as part 7045.0450, and items A and B provide otherwise.

A. Tank systems that are used to store or treat hazardous waste that contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. Tank systems, including sumps, as defined in part 7045.0020, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempt from the requirements in subparts 4 and 5.

[For text of subps 2 and 3, see M.R.]

Subp. 4. **Containment and detection of releases.** The following requirements apply to the containment and detection of

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releases from tanks:

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

H. Ancillary equipment must be provided with secondary containment, such as trench, jacketing, or double walled piping, that meets the requirements of items B and C, except for:

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

(3) sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis; and

[For text of subitem (4), see M.R.]

[For text of subps 5 to 11, see M.R.]

7045.0596 CLOSURE ACTIVITIES.

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

Subp. 3. **Disposal or decontamination of equipment, structures, and soils.** During the partial and final closure periods, all contaminated facility equipment, structures, and soils must be properly disposed of or decontaminated, unless otherwise specified in part 7045.0628, subpart 9; 7045.0630, subpart 6; 7045.0632, subpart 7; 7045.0634, subpart 6; or 7045.0638, subpart 4. By removing any hazardous wastes or hazardous constituents during partial or final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of parts 7045.0205 to 7045.0304.

[For text of subp 4, see M.R.]

7045.0600 POST CLOSURE.

Subpart 1. **Scope.** This part and parts 7045.0602 to 7045.0606 apply to the owners and operators of all hazardous waste disposal facilities, including surface impoundments and waste piles from which the owner or operator intends to remove the wastes at closure, to the extent that the owner or operator is required to provide post closure care in part 7045.0630, subpart 6, or in part 7045.0632, subpart 7, and also tank systems that are required under part 7045.0628, subpart 9, to

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meet the requirements for landfills, except as provided otherwise in part 7045.0552.

[For text of subps 2 and 3, see M.R.]

7045.0628 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. Scope. This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as items A and B and part 7045.0552 provide otherwise.

A. Tank systems that are used to store or treat hazardous waste containing no free liquids and that are located inside a building with an impermeable floor are exempt from the requirements of subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. Tank systems, including sumps, as defined in part 7045.0020 that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in subparts 4 and 5.

[For text of subps 2 and 3, see M.R.]

Subp. 4. Containment and detection of releases.

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

H. Ancillary equipment must be provided with full secondary containment, such as trench, jacketing, or double walled piping, that meets the requirements of items B and C, except for:

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

(3) sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

[For text of subitem (4), see M.R.]

[For text of subps 5 to 12, see M.R.]

7045.0629 REQUIREMENTS FOR SMALL QUANTITY GENERATORS THAT ACCUMULATE HAZARDOUS WASTE IN TANKS.

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

Subp. 3. **Inspections.** Small quantity generators must inspect, where present:

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

C. the level of waste in the tank at least once each operating day to ensure compliance with subpart 2, item C;

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

[For text of subps 4 to 6, see M.R.]

7100.0335 CERTIFICATE OF EXEMPTION REQUIRED.

Subpart 1. **Certification of exemption required.** Except as provided in subpart 2, no person may use, possess, sell, purchase, or manufacture PCB, a product containing PCB, or a class of products containing PCB without obtaining a certificate of exemption from the agency.

Subp. 2. **Exclusions.** The requirement to obtain a certification of exemption does not apply to the following uses or products:

A. any product containing PCB that was purchased or otherwise acquired by an individual person for consumer use in the home;

B. wastepaper, pulp, or other wood fiber materials purchased for use within this state in the manufacture of recycled paper products; and

C. any electrical ballast, capacitor, or transformer that contains less than one kilogram of PCB.

Subp. 3. **Certification of exemption by rule.** Any person who is required to obtain a certificate of exemption shall be considered to have obtained a certification of exemption without making application for it, if:

A. the person complies with the manufacturing, processing, distribution, use, disposal, storage, and labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761;

B. the person's eligibility to obtain or maintain a certification of exemption by rule has not been terminated under

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subpart 4; and

C. the person submits a written notification to the commissioner that explains the PCB activities the person will be conducting that require a certification of exemption.

The notification requirement in item C does not apply to a person who was issued a certification of exemption under part 7100.0340 and then had the certification of exemption terminated under part 7100.0340, subpart 21, item A.

Subp. 4. **Termination of eligibility for certification of exemption by rule.** The eligibility of a person to receive or maintain a certification of exemption by rule under subpart 3 is subject to termination by the agency after notice and opportunity for a public informational meeting or a contested case hearing if the agency makes any of the findings in items A to C. A person whose eligibility to be exempted by rule under subpart 3 has been terminated shall apply for and obtain an individual certification of exemption under these parts. The following findings constitute justification for the commissioner to commence proceedings to terminate eligibility:

A. that the person does not comply with the manufacturing, processing, distribution, use, disposal, storage, and labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761;

B. that the person is conducting other activities that are not regulated under the federal PCB program in Code of Federal Regulations, title 40, part 761, and are required to be covered by a certification of exemption; and

C. that under the circumstances, in order to protect human health or the environment, the person should be subject to the requirement to obtain an individual certification of exemption under these parts.

7100.0340 CERTIFICATE OF EXEMPTION.

[For text of subps 1 to 20, see M.R.]

Subp. 21. **Termination of certification of exemption.** A certificate of exemption is terminated and the terms and

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conditions of the certificate of exemption are no longer in force or effect under the following circumstances:

A. the person issued the certificate of exemption meets the requirements for a certification of exemption by rule in part 7100.0335, subpart 3; or

B. the person issued the certificate of exemption no longer uses, possesses, sells, purchases, or manufactures PCB, a product containing PCB, or a class of products containing PCB and has submitted a written notification to the commissioner stating this fact.

A person described in item B shall submit written notification to the commissioner within 30 days of stopping PCB activities that require a certificate of exemption.

7100.0350 LABELS.

Any person in this state who sells any item, product, or material which contains PCB shall comply with all of the labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761. The above labeling requirements do not apply to the uses or products excluded in part 7100.0335, subpart 2.

REPEALER. Minnesota Rules, part 7100.0360, is repealed.

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Pollution Control Agency

Adopted Permanent Rules Relating to Hazardous Waste and Polychlorinated Biphenyls

Rules as Adopted

7001.0700 HAZARDOUS WASTE THERMAL TREATMENT FACILITY PERMITS.

[For text of subps 1 to 10, see M.R.]

Subp. 11. **Requirements for existing hazardous waste thermal treatment facilities.** To determine the feasibility of compliance with the performance standards of part 7045.0542, subpart 4, and to determine adequate operating conditions under part 7045.0542, subpart 6, the applicant for a permit for an existing hazardous waste thermal treatment facility must prepare and submit to the commissioner a trial burn plan and perform a trial burn in accordance with subparts 3 to 8 and part 7001.0630, item B, or, instead, submit other information as specified in part 7001.0630, item C. Applicants submitting information under part 7001.0630, item A, are exempt from compliance with part 7045.0542, subparts 4 and 6, and, therefore, are exempt from the requirement to conduct a trial burn. An applicant who submits trial burn plans and who receives approval before submission of a permit application shall complete the trial burn and submit the results specified in subpart 6 with Part B of the permit application. Trial burn results must be submitted prior to issuance of the permit. If completion of this process conflicts with the date set for submission of the Part B application, the applicant shall contact the commissioner to establish a later date for the submission of the Part B application or trial burn results. When the applicant submits a trial burn plan with Part B of the permit application, the commissioner shall specify a time period prior to permit issuance in which the trial burn must be conducted and the results submitted.

7045.0020 DEFINITIONS.

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[For text of subps 1 to 15, see M.R.]

Subp. 15a. Detect and detection. "Detect" and "detection" refer to the finding of statistically significant evidence of contamination as described in part 7045.0484, subpart 12, item F.

[For text of subps 16 to 20, see M.R.]

Subp. 21. Elementary neutralization unit. "Elementary neutralization unit" means a device which:

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

B. meets the definition of tank, tank system, container, transport vehicle, or vessel.

[For text of subps 21a and 22, see M.R.]

Subp. 22a. Exceed and exceeded. "Exceed" and "exceeded" refer to the finding of statistically significant evidence of increased contamination as described in part 7045.0484, subpart 13, item D.

[For text of subps 23 to 102a, see M.R.]

Subp. 103. Wastewater treatment unit. "Wastewater treatment unit" means a device which:

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

C. meets the definition of "tank" as defined in subpart 90, or "tank system" as defined in subpart 90a.

[For text of subps 104 to 109, see M.R.]

7045.0120 EXEMPT WASTES.

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

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

I. waste from the extraction, beneficiation, and processing of ores and minerals, including coal, and including phosphate rock and overburden from the mining of uranium ore.

Solid waste from the processing of ores and minerals does not include:

(1) acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production;

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(2) surface impoundment solids contained in the dredged from surface impoundments at primary lead smelting facilities;

(3) sludge from treatment of process wastewater or acid plant blowdown from primary zinc production;

(4) spent potliners from primary aluminum reduction;

(5) emission control dust or sludge from ferrochromiumsilicon production; or

(6) emission control dust or sludge from ferrochromium production;

[For text of items J to P, see M.R.]

7045.0135 LISTS OF HAZARDOUS WASTES.

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

Subp. 3. Hazardous waste from specific sources. Hazardous wastes from specific sources are listed with the industry and hazardous waste number and hazard code in items A to Q.

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

I. Primary copper: K064, acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production: (T).

J. Primary lead: K065, surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities: (T).

K. Primary zinc: K066, sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production: (T).

L. Primary aluminum: K088, spent potliners from primary aluminum reduction: (T).

M. Ferroalloys:

(1) K090, emission control dust or sludge from ferrochromiumsilicon production: (T); and

(2) K091, emission control dust or sludge from ferrochromium production: (T).

N. Secondary lead:

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(1) K069, emission control dust or sludge from secondary lead smelting: (T); and

(2) K100, waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting: (T).

O. Veterinary pharmaceuticals:

(1) K084, wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T);

(2) K101, distillation tar residues from the distillation of aniline based compounds in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T); and

(3) K102, residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds: (T).

P. Ink formulation: K086, solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, dryers, soaps, and stabilizers containing chromium and lead: (T).

Q. Coke:

(1) K060, ammonia still lime sludge from coking operations: (T); and

(2) K087, decanter tank tar sludge from coking operations: (T).

Subp. 4. Discarded commercial chemical products, off specification species, containers, and spill residues. The following materials or items are hazardous wastes when they are discarded or intended to be discarded as described in part 7045.0020, subpart 18; when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment; when they are otherwise applied to the land in lieu of their original intended use; when they are contained in products that are applied to the land in lieu of their original intended use; or when, in lieu of their

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original intended use, they are produced for use as, or as a component of a fuel, distributed for use as a fuel, or burned as a fuel.

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

E. the commercial chemical products or manufacturing chemical intermediates, or off specification commercial chemical products or manufacturing chemical intermediates referred to in items A to D and listed in subitems (1) to (17), are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, items B and C. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), and R (reactivity). Absence of a letter indicates that the compound is listed only for acute toxicity. These wastes and their corresponding hazardous waste numbers, Chemical Abstract Service registry numbers, if available, and hazard codes are listed in subitems (1) to (17).

[For text of subitems (1) to (12), see M.R.]

(13) Hazardous wastes from commercial chemical products beginning with the letter S:

(a) P114, 12039-52-0, Selenious acid, dithallium(1+) salt;

(b) P103, 630-10-4, Selenourea;

(c) P104, 506-64-9, Silver cyanide;

(d) P104, 506-64-9, Silver cyanide Ag(CN);

(e) P105, 26628-22-8, Sodium azide;

(f) P106, 143-33-9, Sodium cyanide;

(g) P106, 143-33-9, Sodium cyanide Na(CN);

(h) P108, 57-24-9, Strychnidin-10-one, and salts;

(i) P018, 357-57-3, Strychnidin-10-one, 2,3-dimethoxy-;

(j) P108, 57-24-9, Strychnine and salts; and

(k) P115, 7446-18-6, Sulfuric acid, dithallium(I+) salt.

[For text of subitems (14) to (17), see M.R.]

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F. The commercial chemical products or manufacturing chemical intermediates, or off-specification commercial chemical products referred to in items A to D, and listed in subitems (1) to (24) are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in part 7045.0219, subpart 1, item A. The primary hazardous properties of these materials have been indicated by the letters T (toxicity), R (reactivity), I (ignitability), and C (corrosivity). Absence of a letter indicates that the compound is listed only for toxicity. These wastes and their corresponding hazardous waste numbers, Chemical Abstract Service registry numbers, if available, and hazard codes are listed as follows:

[For text of subitems (1) to (8), see M.R.]

(9) Hazardous wastes from commercial chemical products beginning with the letter I:

(a) U116, 96-45-7, 2-Imidazolidinethione;

(b) U137, 193-39-5, Indeno[1,2,3cd]pyrene;

(c) U190, 85-44-9, 1,3-Isobenzofurandione;

(d) U140, 78-83-1, Isobutyl alcohol: (I,T); and

(e) U141, 120-58-1, Isosafrole.

[For text of subitems (10) to (24), see M.R.]

[For text of subp 5, see M.R.]

7045.0139 BASIS FOR LISTING HAZARDOUS WASTES.

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

Subp. 2. **Constituents.** The constituents which are the basis for listing the wastes identified in part 7045.0135, subparts 2 and 3 are listed in items A and B.

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

B. Constituents of wastes identified in part 7045.0135, subpart 3 are listed in subitems (1) to (95).

[For text of subitems (1) to (54), see M.R.]

(55) K064: Lead, cadmium;

(56) K065: Lead, cadmium;

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(57) K066: Lead, cadmium;

(58) K069: Hexavalent chromium, lead, cadmium;

(59) K071: Mercury;

(60) K073: Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane;

(61) K083: Aniline, diphenylamine, nitrobenzene, phenylenediamine;

(62) K084: Arsenic;

(63) K085: Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride;

(64) K086: Lead, hexavalent chromium;

(65) K087: Phenol, naphthalene;

(66) K088: Cyanide (complexes);

(67) K090: Chromium;

(68) K091: Chromium;

(69) K093: Phthalic anhydride, maleic anhydride;

(70) K094: Phthalic anhydride;

(71) K095: 1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane;

(72) K096: 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane;

(73) K097: Chlordane, heptachlor;

(74) K098: Toxaphene;

(75) K099: 2,4-dichlorophenol, 2,4,6-trichlorophenol;

(76) K100: Hexavalent chromium, lead, cadmium;

(77) K101: Arsenic;

(78) K102: Arsenic;

(79) K103: Aniline, nitrobenzene, phenylenediamine;

(80) K104: Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine;

(81) K105: Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol;

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(82) K106: Mercury;

(83) K111: 2,4-Dinitrotoluene;

(84) K112: 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline;

(85) K113: 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline;

(86) K114: 2,4-Toluenediamine, o-toluidine, p-toluidine;

(87) K115: 2,4-Toluenediamine;

(88) K116: Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene;

(89) K117: Ethylene dibromide;

(90) K118: Ethylene dibromide;

(91) K123: Ethylene thiourea;

(92) K124: Ethylene thiourea;

(93) K125: Ethylene thiourea;

(94) K126: Ethylene thiourea; and

(95) K136: Ethylene dibromide.

7045.0141 HAZARDOUS CONSTITUENTS.

[For text of subps 1 to 9, see M.R.]

Subp. 10. **"I" constituents.** Hazardous constituents beginning with the letter I are as follows:

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

B. Isobutyl alcohol, 78-83-1, U140;

C. Isodrin, 465-73-6, P060; and

D. Isosafrole, 120-58-1, U141.

[For text of subps 11 to 17, see M.R.]

Subp. 18. **"S" constituents.** Hazardous constituents beginning with the letter S are as follows:

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

O. Strychnine, 57-24-9, P108; and

P. Strychnine salts, _____, P108.

[For text of subps 19 to 23, see M.R.]

7045.0213 FARMERS; PESTICIDES.

A farmer who generates waste pesticides which are hazardous

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waste and who complies with all of the requirements of part 7045.0304 is not required with respect to those pesticides, to comply with other standards in parts 7045.0205 to 7045.0304 or to comply with parts 7045.0450 to 7045.1380, or to obtain a hazardous waste facility permit.

7045.0484 GROUNDWATER PROTECTION.

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

Subp. 3. **Groundwater protection standard.** The owner or operator shall comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents detected in the groundwater from a regulated unit do not exceed the concentration limits in the groundwater at and beyond the point of compliance during the compliance period. The agency shall establish the groundwater protection standard in the facility permit when hazardous constituents have been detected in the groundwater based on data provided by monitoring of the groundwater quality as specified in subparts 11 and 12.

[For text of subps 4 to 10, see M.R.]

Subp. 11. **General groundwater monitoring requirements.** The owner or operator shall comply with the requirements of items A to J for any groundwater monitoring program developed to satisfy subpart 12, 13, or 14:

A. The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield groundwater samples from groundwater that:

(1) represent the quality of background groundwater that has not been affected by leakage from a regulated unit;

(a) a determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

i. hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

ii. sampling at other wells will

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provide an indication of background groundwater quality that is representative or more representative than that provided by the upgradient wells; and

[For text of subitem (2), see M.R.]

(3) allow for the detection of potential contamination from the regulated unit.

[For text of items B to F, see M.R.]

G. In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit shall be collected from background wells and wells at the compliance points. The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to groundwater from a facility will be detected. The owner or operator shall determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which shall be specified in the facility permit upon approval by the agency. This sampling procedure shall be:

(1) a sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport characteristics of the potential contaminants; or

(2) an alternate sampling procedure proposed by the owner or operator and approved by the commissioner.

H. The owner or operator shall specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the commissioner, will be specified in the facility permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical quantification limits are used in any of

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the following statistical procedures to comply with item I, subitem (5), the practical quantification limits must be proposed by the owner or operator and approved by the commissioner. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in item I.

(1) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) Another statistical test method submitted by the owner or operator and approved by the commissioner.

I. Any statistical method chosen under item H for specification in the facility permit shall comply with the following performance standards, as appropriate:

(1) The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be

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transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

(3) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the commissioner to be protective of human health and the environment.

(4) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be proposed by the owner or operator and subject to an approval by the agency to be protective of human health and the environment. These parameters will be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(5) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit approved by the commissioner which is used in the statistical method shall be the lowest concentration level that can be reliably achieved

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within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(6) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

J. Groundwater monitoring data collected in accordance with item G, including actual levels of constituents, must be maintained in the facility operating record. The agency shall specify in the permit when the data must be submitted for review.

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

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

C. The owner or operator shall conduct a groundwater monitoring program for each chemical parameter and hazardous constituent specified in the permit under item A in accordance with subpart 11, item G. The owner or operator shall maintain a record of groundwater analytical data as measured and in a form necessary for the determination of statistical significance under subpart 11, item H.

D. The agency shall specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit under item A in accordance with subpart 11, item G. A sequence of at least four samples from each well, background, and compliance wells, must be collected at least semiannually during detection monitoring.

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

F. The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter of hazardous constituent specified in the permit under item A at a frequency specified under item D.

(1) In determining whether statistically

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significant evidence of contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. These methods must compare data collected at the compliance points to the background groundwater quality data.

(2) The owner or operator must determine whether there is statistically significant evidence of contamination at each monitoring well as the compliance point within a reasonable period of time after completion of sampling. The agency shall specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of groundwater samples.

G. If the owner or operator determines under item F that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified under item A at any monitoring well at the compliance point, the owner or operator must:

(1) Notify the commissioner of this finding in writing within seven days. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination.

(2) Immediately sample the groundwater in all monitoring wells and determine whether constituents in the list of part 7045.0143 are present, and if so, in what concentration.

(3) For part 7045.0143 compounds found in the analysis under subitem (2), the owner or operator may resample within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents shall form the basis for compliance monitoring. If the owner or operator does not resample, the hazardous constituents found during this initial part 7045.0143 analysis shall form the basis for compliance monitoring.

(4) Within 90 days, submit to the commissioner an application for a permit modification to establish a compliance

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monitoring program meeting the requirements of subpart 13. The application must include the following information:

(a) an identification of the concentration or a part 7045.0143 constituent detected in the groundwater at each monitoring well at the compliance point;

(b) proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of subpart 13;

(c) proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of subpart 13; and

(d) for each hazardous constituent detected at the compliance point, a proposed concentration limit under subpart 6, item A or B, or a notice of intent to seek an alternate concentration limit under subpart 8.

(5) Within 180 days, submit to the commissioner all data necessary to justify an alternate concentration limit sought under subpart 8, and an engineering feasibility plan for a corrective action program necessary to meet the requirement of subpart 14, unless:

(a) all hazardous constituents identified under subitem (2), are listed in subpart 7 and their concentrations do not exceed the respective values given in that table; or

(b) the owner or operator has sought an alternate concentration limit under subpart 8 for every hazardous constituent identified under subitem (2).

(6) If the owner or operator determines, under item F, that there is a statistically significant difference for chemical parameters or hazardous constituents specified under item A at any monitoring well at the compliance point, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater.

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The owner or operator may make a demonstration under this paragraph in addition to, or in lieu of, submitting a permit modification application under subitem (4); however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in subitem (4) unless the demonstration made under this subitem successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration, the owner or operator shall:

(a) notify the commissioner in writing within seven days of determining statistically significant evidence of contamination at the compliance point that the owner or operator intends to make a demonstration under this subunit;

(b) within 90 days, submit a report to the commissioner which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from an error in sampling, analysis, or evaluation;

(c) within 90 days, submit to the commissioner an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

(d) continue to monitor in accordance with the detection monitoring program established under this subpart.

H. If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this subpart, the owner or operator must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

Subp. 13. **Compliance monitoring program.** An owner or operator required to establish a compliance monitoring program under this part shall perform the following:

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

C. The agency shall specify the sampling procedures and statistical methods appropriate for the constituents and the facility, consistent with subpart 11, items G and H as described

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in subitems (1) and (2).

(1) The owner or operator must conduct a sampling program for each chemical parameter or hazardous constituent in accordance with subpart 11, item G.

(2) The owner or operator must record groundwater analytical data as measured and in the form necessary for the determination of statistical significance under subpart 11, item H, for the compliance period of the facility.

D. The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, under item ~~C~~ A, at a frequency specified under item F.

(1) In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. The methods must compare data collected at the compliance points to a concentration limit developed in accordance with subpart 6.

(2) The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The agency will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities, to perform the analysis of groundwater samples.

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

F. The agency shall specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with subpart 11, item G. A sequence of at least four samples from each background and compliance well must be collected at least semiannually during the compliance period of the facility.

G. The owner or operator must analyze samples from

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all monitoring wells at the compliance point for all constituents contained in part 7045.0143 at least annually to determine whether additional hazardous constituents are present in the uppermost aquifer and, if so, at what concentration, according to procedures in subpart 12, item F. If the owner or operator finds part 7045.0143 constituents in the groundwater that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month and repeat the part 7045.0143 analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentration of these additional constituents to the commissioner within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then the owner or operator shall report the concentrations of these additional constituents to the commissioner within seven days after completion of the initial analysis and add them to the monitoring list.

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

I. If the owner or operator determines, under item G or H, that the groundwater protection standard is being exceeded at any monitoring well at the point of compliance, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, statistical evaluation, or natural variation in the groundwater. Until the owner or operator makes a demonstration, the owner or operator is not relieved of the requirement to submit a permit modification application if necessary to comply with item H within the time specified in item H, subitem (2) or of the requirement to institute corrective actions as established in item H, subitem (2). In making a demonstration, the owner or operator shall:

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

[For text of items J and K, see M.R.]

[For text of subp 14, see M.R.]

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7045.0488 CLOSURE ACTIVITIES.

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

Subp. 3. **Disposal or decontamination of equipment, structures, and soils.** During the partial and final closure periods, all contaminated facility equipment, structures, and soils must be properly disposed of or decontaminated unless otherwise specified in part 7045.0528, subpart 9; 7045.0532, subpart 7; 7045.0534, subpart 7; 7045.0536, subpart 8; or 7045.0538, subpart 7, or under the authority of part 7045.0539, subparts 2 and 4. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of parts 7045.0205 to 7045.0304.

[For text of subp 4, see M.R.]

7045.0528 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as part 7045.0450, and items A and B provide otherwise.

A. Tank systems that are used to store or treat hazardous waste that contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. Tank systems, including sumps, as defined in part 7045.0020, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempt from the requirements in subparts 4 and 5.

[For text of subps 2 and 3, see M.R.]

Subp. 4. **Containment and detection of releases.** The following requirements apply to the containment and detection of

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releases from tanks:

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

H. Ancillary equipment must be provided with secondary containment, such as trench, jacketing, or double walled piping, that meets the requirements of items B and C, except for:

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

(3) sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis; and

[For text of subitem (4), see M.R.]

[For text of subps 5 to 11, see M.R.]

7045.0596 CLOSURE ACTIVITIES.

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

Subp. 3. **Disposal or decontamination of equipment, structures, and soils.** During the partial and final closure periods, all contaminated facility equipment, structures, and soils must be properly disposed of or decontaminated, unless otherwise specified in part 7045.0628, subpart 9; 7045.0630, subpart 6; 7045.0632, subpart 7; 7045.0634, subpart 6; or 7045.0638, subpart 4. By removing any hazardous wastes or hazardous constituents during partial or final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of parts 7045.0205 to 7045.0304.

[For text of subp 4, see M.R.]

7045.0600 POST CLOSURE.

Subpart 1. **Scope.** This part and parts 7045.0602 to 7045.0606 apply to the owners and operators of all hazardous waste disposal facilities, including surface impoundments and waste piles from which the owner or operator intends to remove the wastes at closure, to the extent that the owner or operator is required to provide post closure care in part 7045.0630, subpart 6, or in part 7045.0632, subpart 7, and also tank systems that are required under part 7045.0628, subpart 9, to

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meet the requirements for landfills, except as provided otherwise in part 7045.0552.

[For text of subps 2 and 3, see M.R.]

7045.0628 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. Scope. This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as items A and B and part 7045.0552 provide otherwise.

A. Tank systems that are used to store or treat hazardous waste containing no free liquids and that are located inside a building with an impermeable floor are exempt from the requirements of subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. Tank systems, including sumps, as defined in part 7045.0020 that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in subparts 4 and 5.

[For text of subps 2 and 3, see M.R.]

Subp. 4. Containment and detection of releases.

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

H. Ancillary equipment must be provided with full secondary containment, such as trench, jacketing, or double walled piping, that meets the requirements of items B and C, except for:

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

(3) sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

[For text of subitem (4), see M.R.]

[For text of subps 5 to 12, see M.R.]

7045.0629 REQUIREMENTS FOR SMALL QUANTITY GENERATORS THAT ACCUMULATE HAZARDOUS WASTE IN TANKS.

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

Subp. 3. **Inspections.** Small quantity generators must inspect, where present:

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

C. the level of waste in the tank at least once each operating day to ensure compliance with subpart 2, item C;

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

[For text of subps 4 to 6, see M.R.]

7100.0335 CERTIFICATE OF EXEMPTION REQUIRED.

Subpart 1. **Certification of exemption required.** Except as provided in subpart 2, no person may use, possess, sell, purchase, or manufacture PCB, a product containing PCB, or a class of products containing PCB without obtaining a certificate of exemption from the agency.

Subp. 2. **Exclusions.** The requirement to obtain a certification of exemption does not apply to the following uses or products:

A. any product containing PCB that was purchased or otherwise acquired by an individual person for consumer use in the home;

B. wastepaper, pulp, or other wood fiber materials purchased for use within this state in the manufacture of recycled paper products; and

C. any electrical ballast, capacitor, or transformer that contains less than one kilogram of PCB.

Subp. 3. **Certification of exemption by rule.** Any person who is required to obtain a certificate of exemption shall be considered to have obtained a certification of exemption without making application for it, if:

A. the person complies with the manufacturing, processing, distribution, use, disposal, storage, and labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761;

B. the person's eligibility to obtain or maintain a certification of exemption by rule has not been terminated under

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by Revisor _____

subpart 4; and

C. the person submits a written notification to the commissioner that explains the PCB activities the person will be conducting that require a certification of exemption.

The notification requirement in item C does not apply to a person who was issued a certification of exemption under part 7100.0340 and then had the certification of exemption terminated under part 7100.0340, subpart 21, item A.

Subp. 4. **Termination of eligibility for certification of exemption by rule.** The eligibility of a person to receive or maintain a certification of exemption by rule under subpart 3 is subject to termination by the agency after notice and opportunity for a public informational meeting or a contested case hearing if the agency makes any of the findings in items A to C. A person whose eligibility to be exempted by rule under subpart 3 has been terminated shall apply for and obtain an individual certification of exemption under these parts. The following findings constitute justification for the commissioner to commence proceedings to terminate eligibility:

A. that the person does not comply with the manufacturing, processing, distribution, use, disposal, storage, and labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761;

B. that the person is conducting other activities that are not regulated under the federal PCB program in Code of Federal Regulations, title 40, part 761, and are required to be covered by a certification of exemption; and

C. that under the circumstances, in order to protect human health or the environment, the person should be subject to the requirement to obtain an individual certification of exemption under these parts.

7100.0340 CERTIFICATE OF EXEMPTION.

[For text of subps 1 to 20, see M.R.]

Subp. 21. **Termination of certification of exemption.** A certificate of exemption is terminated and the terms and

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by Revisor _____

conditions of the certificate of exemption are no longer in force or effect under the following circumstances:

A. the person issued the certificate of exemption meets the requirements for a certification of exemption by rule in part 7100.0335, subpart 3; or

B. the person issued the certificate of exemption no longer uses, possesses, sells, purchases, or manufactures PCB, a product containing PCB, or a class of products containing PCB and has submitted a written notification to the commissioner stating this fact.

A person described in item B shall submit written notification to the commissioner within 30 days of stopping PCB activities that require a certificate of exemption.

7100.0350 LABELS.

Any person in this state who sells any item, product, or material which contains PCB shall comply with all of the labeling and marking requirements of the federal PCB program in Code of Federal Regulations, title 40, part 761. The above labeling requirements do not apply to the uses or products excluded in part 7100.0335, subpart 2.

REPEALER. Minnesota Rules, part 7100.0360, is repealed.

Approved
by Revisor _____

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste and Polychlorinated Biphenyls, Minn. Rules Chs. 7001, 7045, and 7100

DECLARATION OF COUNSEL

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

Dated: November 26, 1990

Alan R. Mitchell

ALAN R. MITCHELL
Special Assistant
Attorney General

Exhibit No. 14

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste and Polychlorinated Biphenyls, Minn. Rules Chs. 7001, 7045, and 7100.

NOTICE OF SUBMISSION OF RULE ADOPTED WITHOUT PUBLIC HEARING TO THE ATTORNEY GENERAL

Pursuant to your request and in accordance with Minn. Stat. § 14.26 (1988):

PLEASE TAKE NOTICE that the above-captioned rules as adopted have been submitted to the Office of the Attorney General on this date, for review as to legality and form to the extent form relates to legality. The proposed rules, the rules as adopted, all the notices, the Statement of Need and Reasonableness, all written comments and requests for a hearing received, and other required documents also have been submitted to the Attorney General.

The proposed rules which were published in the State Register (14 S.R. 2695) and made available to the public on May 21, 1990, have been modified. A copy of the rules as modified is enclosed with this notice. A free copy of the the findings of fact, conclusions, and order explaining the amendments and adopting the rules is available upon request from Nathan B. Cooley, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota, 55155, telephone 612/643-3477.

The rules must be approved or disapproved by the Attorney General within 14 calendar days of the date of submission to the Attorney General. You may submit written comments to the Attorney General on the legality of the rules. Any written comments must be submitted within eight calendar days of the date of the submission of the rules to the Attorney General. Your comments must address only the issue of legality of the rules or the legality of the specific parts or subparts of the rules. The Attorney General standards for review are set forth in Minnesota Rules, pt. 2010.1000. You may receive a copy of the Attorney General decision upon written request to the Attorney General. Your comments or requests for the decision must be directed to:

The Office of the Attorney General
Public Finance Division
515 Transportation Building
John Ireland Boulevard
St. Paul, Minnesota 55155
Telephone: 297-2040

Any written comments submitted to the Attorney General must also be submitted to Nathan B. Cooley of the Minnesota Pollution Control Agency at the address stated above.

Dated: November 26, 1990

Randall Hukriede

Randall Hukriede, Acting Supervisor
Rules Unit
Hazardous Waste Division

Exhibit No. 16

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste and Polychlorinated Biphenyls, Minn. Rules Chs. 7001, 7045, and 7100.

AFFIDAVIT OF MAILING NOTICE OF SUBMISSION OF RULES ADOPTED WITHOUT PUBLIC HEARING TO THE ATTORNEY GENERAL

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

I Nathan B. Cooley, being duly sworn says:

That on the 26th day of November, 1990, in the City of St. Paul, County of Ramsey, State of Minnesota, I mailed the attached Notice of Submission to the Attorney General by depositing in the United States Mail a copy thereof, with first class postage prepaid, to all persons and associations who requested notice that the rules in the above-entitled matter have been submitted to the Attorney General.

That there was only one request received by the Minnesota Pollution Control Agency for notification of the submission of rules adopted without a public hearing to the Attorney General concerning the above-entitled matter, and that this request came by telephone from Mr. Andy Polzin, Tellus Consultants, 1315 Glenwood Avenue North, Minneapolis, Minnesota 55405 on May 23, 1990.

Nathan B. Cooley

Subscribed and sworn to before me this 26 day of November 1990.

Ardith M. Vos
Notary Public

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

Exhibit No. 17

Proposed Rules

Pursuant to Minn. Stat. §§ 14.22, an agency may propose to adopt, amend, suspend or repeal rules without first holding a public hearing, as long as the agency determines that the rules will be noncontroversial in nature. The agency must first publish a notice of intent to adopt rules without a public hearing, together with the proposed rules, in the *State Register*. The notice must advise the public:

1. that they have 30 days in which to submit comment on the proposed rules;
2. that no public hearing will be held unless 25 or more persons make a written request for a hearing within the 30-day comment period;
3. of the manner in which persons shall request a hearing on the proposed rules; and
4. that the rule may be modified if the modifications are supported by the data and views submitted.

If, during the 30-day comment period, 25 or more persons submit to the agency a written request for a hearing of the proposed rules, the agency must proceed under the provisions of §§ 14.14-14.20, which state that if an agency decides to hold a public hearing, it must publish a notice of intent in the *State Register*.

Pursuant to Minn. Stat. §§ 14.29 and 14.30, agencies may propose emergency rules under certain circumstances. Proposed emergency rules are published in the *State Register* and, for at least 25 days thereafter, interested persons may submit data and views in writing to the proposing agency.

Pollution Control Agency

Proposed Amendments to Proposed Permanent Rules Relating to Hazardous Waste and Polychlorinated Biphenyls

Notice of Intent to Adopt Rules Without a Public Hearing

NOTICE IS HEREBY GIVEN that the Minnesota Pollution Control Agency (MPCA) intends to adopt the above-entitled rule amendments without a public hearing following the procedures set forth in the Administrative Procedure Act in *Minnesota Statutes* §§ 14.22 to 14.28 (1988). The MPCA's authority to adopt the rule amendments is set forth in *Minnesota Statutes* §§ 116.07, subd. 4 and 116.37 (1988).

This is the second notice provided by the Agency regarding the proposed adoption of these amendments. The first notice was published in the *State Register* on May 21, 1990 (14 S.R. 2695). The Agency is re-noticing these proposed amendments to ensure that all persons who registered their names with the Agency to receive hazardous waste rulemaking notices are given notice of this rulemaking proceeding. The Agency is concerned that some persons who registered their names were not given notice of these proposed amendments when the notice was mailed out last May. The Agency has also proposed some minor changes in the proposed language. These minor changes are published below. The remainder of the proposed amendments are the same as those proposed last May. Copies of last May's notice can be obtained from county libraries or from the Minnesota Bookstore (telephone 612/297-3000).

All persons have until 4:30 p.m. on October 10, 1990 to submit comments in support of or in opposition to the proposed rule amendments or any part or subpart of the rules. Comment is encouraged. Each comment should identify the portion of the proposed rule amendments addressed, the reason for the comment, and any change proposed.

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

Comments or written requests for a public hearing must be submitted to Nathan B. Cooley, Hazardous Waste Division, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, MN 55155 (telephone 612/643-3477).

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

The MPCA proposes in this rulemaking to adopt seven federal amendments pertaining to various portions of existing *Minnesota Rules* chs. 7001 and 7045 which govern management of hazardous wastes. It also proposes amending existing *Minnesota Rules* ch. 7100 governing certificates of exemption for the management of polychlorinated biphenyls.

The seven federal amendments were promulgated by the U.S. Environmental Protection Agency to correct and clarify existing regulations which govern the following: storage and treatment tank system standards, delisting of iron dextran, delisting of strontium sulfide, relisting of certain metal smelting wastes, statistical methods for ground water monitoring data, farmers' exemptions, and trial burn information requirements for the modification of existing hazardous waste thermal treatment permits. The MPCA proposes to adopt these federal amendments without substantial change in order to provide equivalent state rules and in order to retain federal authorization to administer its hazardous waste program.

Exhibit No. 8

The state initiated amendments to rules governing certificates of exemption serve to reduce the burden and the potential confusion from rules which have become duplicative due to changes in the corresponding federal regulations. These amendments provide a process wherein persons may obtain a state certificate of exemption by rule under certain circumstances.

A STATEMENT OF NEED AND REASONABLENESS which describes the need for and reasonableness of each provision of the proposed rule amendments has been prepared and is available upon request at the above address.

YOU ARE HEREBY ADVISED, pursuant to *Minnesota Statute* § 14.115 (1988), "Small Business Considerations in Rulemakings," that the economic effect of these proposed amendments on small businesses is anticipated to be either neutral or beneficial. Adopting the federal amendments governing the management of hazardous waste will correct and clarify existing rules. The only apparent increase in regulatory burden results from the federal relisting of certain metal smelting wastes. While the MPCA is required to relist these wastes in order to retain its authorization to administer its hazardous waste program, it does not believe that any businesses in Minnesota will be affected by this relisting. The state amendments governing certificates of exemption reduce duplicative requirements. The anticipated effect of this rulemaking is to save time and effort for the regulated community. This rulemaking amends existing rules. No substantive economic effects are anticipated for Minnesota businesses of any size due to these proposed amendments.

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

Gerald L. Willet, Commissioner

Rules as Amended

7045.0484 GROUNDWATER PROTECTION.

Subps 1 to 10 [See *State Register*, Volume 14, Number 47, pages 2695-2710.]

Subp. 11. **General groundwater monitoring requirements.** The owner or operator shall comply with the requirements of items A to J for any groundwater monitoring program developed to satisfy subpart 12, 13, or 14:

A. to G. [See *State Register*, Volume 14, Number 47, pages 2695-2710.]

H. The owner or operator shall specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the commissioner, will be specified in the facility permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical~~,~~ quantification limits are used in any of the following statistical procedures to comply with item I, subitem (5), the practical quantification limits must be proposed by the owner or operator and approved by the commissioner. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in item I.

(1) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) Another statistical test method submitted by the owner or operator and approved by the commissioner.

I. and J. [See *State Register*, Volume 14, Number 47, pages 2695-2710.]

Subp 12 [See *State Register*, Volume 14, Number 47, pages 2695-2710.]

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

Subp. 13. **Compliance monitoring program.** An owner or operator required to establish a compliance monitoring program under this part shall perform the following:

A. to C. [See *State Register*, Volume 14, Number 47, pages 2695-2710.]

D. The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, under item ~~C~~ A, at a frequency specified under item F.

(1) In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the methods specified in the permit under subpart 11, item H. The methods must compare data collected at the compliance points to a concentration limit developed in accordance with subpart 6.

(2) The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The agency will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities, to perform the analysis of groundwater samples.

E. to K. [See *State Register*, Volume 14, Number 47, pages 2695-2710.]

Subp 14 [See *State Register*, Volume 14, Number 47, pages 2695-2710.]

7045.0528 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as part 7045.0450, and items A and B provide otherwise.

A. Tank systems that are used to store or treat hazardous waste that contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. Tank systems, including sumps, as defined in part 7045.0020, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempt from the requirements in subparts 4 and 5.

Subps 2 to 11 [See *State Register*, Volume 14, Number 47, pages 2695-2710.]

7045.0628 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. **Scope.** This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as items A and B and part 7045.0552 provide otherwise.

A. Tank systems that are used to store or treat hazardous waste containing no free liquids and that are located inside a building with an impermeable floor are exempt from the requirements of subparts 4 and 5. To demonstrate the absence or presence of free liquids in the stored or treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) must be used.

B. Tank systems, including sumps, as defined in part 7045.0020 that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in subparts 4 and 5.

Subps 2 to 12 [See *State Register*, Volume 14, Number 47, pages 2695-2710.]

Board of Private Detective and Protective Agent Services

Proposed Permanent Rules Relating to Board of Private Detective and Protective Agent Services

Notice of Intent to Adopt a Rule Without a Public Hearing and Notice of Intent to Adopt a Rule With a Public Hearing If Twenty-Five or More Persons Request a Hearing

NOTICE IS HEREBY GIVEN that the Private Detective and Protective Agents Board proposes to adopt the above-entitled rule without a public hearing following the procedures set forth in *Minnesota Statutes*, section 14.22 to 14.28. The specific statutory authority to adopt the rule is *Minnesota Statutes*, section 326.3331.

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

Any person may make a written request for a public hearing on the rule within the 30-day comment period. If 25 or more persons

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

RECEIVED
SEP 27 1990
MPCA, HAZARDOUS WASTE DIVISION

SEP 24 1990

5HR-JCK-13
REPLY TO ATTENTION OF:

Mr. Nathan Cooley
Rules Unit
Hazardous Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, Minnesota 55155

Dear Nathan:

This letter is to confirm that there were two typographical errors which were made in the October 18, 1990, Federal Register which change the language of two citations.

The first cite, 40 CFR 264.98(f) states that: "The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter of hazardous constituent specified in the permit pursuant to paragraph (a) of this section at a frequency specified under paragraph (d) of this section". It is our belief that the word "**or**" should be used in the phrase "chemical parameter or hazardous constituent". You will note that in paragraphs (g) and (g)(6) that the word "or" is used.

The second citation, 264.98 (g)(4)(i) states: "An identification of the concentration **or** any Appendix IX constituent detected in the groundwater at each monitoring well at the compliance point ..." It is our belief that the word "**of**" should be used in the phrase "... concentration of any Appendix IX constituent..."

Please contact me at (312) 886-3715 if you have any questions.

Sincerely,

Christine Klemme

Christine Klemme
Regulatory Development Section

cc: Nancy Braymer

Exhibit No. 9

Northern States Power Company

414 Nicollet Mall
Minneapolis, Minnesota 55401-1927
Telephone (612) 330-5500

October 9, 1990

Nathan Cooley
Hazardous Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

RE: Comments on Proposed Amendment to Polychlorinated Biphenyl Rule

Northern States Power Company is in support of the proposed rules regarding PCB regulations which consolidate the state and federal requirements. These proposed changes were published in a April 24, 1990 Issue Statement from the MPCA. The requirements in the existing Certificate of Exemption Rule (COE) have been duplicated by various Federal PCB Regulations. The current duplicative rule requirements can be confusing and are unnecessary. The new rule will still allow the MPCA to terminate a COE by rule if they believe there is mismanagement. The overall management of PCBs should be improved by this rule because the state and federal requirements will be consistent.

If you have any questions regarding these comments please call me at 330-5565.

Sincerely,

Joe Muller

Joe Muller
Regional Regulatory Analyst

3M Division Engineering

PO Box 33331
St. Paul, Minnesota 55133-3331
612/733 1110

RECEIVED
SEP 24 1990
MPCA, HAZARDOUS WASTE DIVISION

September 18, 1990

Subject: PROPOSED PERMANENT RULES RELATING TO HAZARDOUS WASTE AND POLYCHLORINATED BIPHENYLS.

Mr. Nathan B. Cooley
Hazardous Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

Dear Mr. Cooley:

I wish to request a free copy of of the Proposed Permanent Rules Relating to Hazardous Waste and Polychlorinated Biphenyls (Minnesota Rules 7001, 7045, and 7100) for review.

Please contact me at 612/778-6249, if you have any questions regarding this request.

Sincerely,

Brent A. Bystrom

Brent A. Bystrom
Adv. Environmental Engr.

DORSEY & WHITNEY

A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

350 PARK AVENUE
NEW YORK, NEW YORK 10022
(212) 415-9200

1330 CONNECTICUT AVENUE, N. W.
WASHINGTON, D. C. 20036
(202) 857-0700

3 GRACECHURCH STREET
LONDON EC3V 0AT, ENGLAND
01-929-3334

36, RUE TRONCHET
75009 PARIS, FRANCE
01-42-66-59-49

FAR EAST FINANCE CENTER
HONG KONG
852-5-8612555

2200 FIRST BANK PLACE EAST
MINNEAPOLIS, MINNESOTA 55402
(612) 340-2600
TELEX 29-0605
FAX (612) 340-2868

WILLIAM J. KEPPEL
(612) 340-2745

340 FIRST NATIONAL BANK BUILDING
ROCHESTER, MINNESOTA 55903
(507) 288-3156

315 FIRST NATIONAL BANK BUILDING
WAYZATA, MINNESOTA 55391
(612) 475-0373

1200 FIRST INTERSTATE CENTER
BILLINGS, MONTANA 59103
(406) 252-3800

201 DAVIDSON BUILDING
GREAT FALLS, MONTANA 59401
(406) 727-3632

127 EAST FRONT STREET
MISSOULA, MONTANA 59802
(406) 721-6025

September 11, 1990

Nathan B. Cooley
Hazardous Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

Re: Proposed Permanent Rules Relating to Hazardous Waste and Polychlorinated Biphenyls Minnesota Rules chs. 7001, 7045, and 7100

Dear Mr. Cooley:

We would like to request a copy of the above proposed rules for our review. Thank you for your assistance.

Very truly yours,

Bill Keppel

William J. Keppel

WJK:st

RECEIVED
SEP 13 1990
MPCA, HAZARDOUS
WASTE DIVISION

Minnesota Department of Transportation
Transportation Building, St. Paul, MN 55155

Celebrate MINNESOTA 1990

September 11, 1990

Nathan B. Cooley
Hazardous Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155

Dear Mr. Cooley:

It has come to my attention that the Minnesota Pollution Control Agency intends to adopt rule amendments governing the management of hazardous waste and polychlorinated biphenyls. These rule changes will alter Minn. Rules Chs. 7001, 7045, and 7100.

Because the proposed rule change is of interest to the Environmental Compliance and Investigation Unit at the Minnesota Department of Transportation, I am requesting a copy of the appropriate S.O.N.A.R. regarding this action. Please forward the document to the attention of Mr. Bruce Johnson, Unit Chief, Environmental Compliance and Investigation Unit, Environmental Services Section, Room 124, Transportation Building.

Please contact me at 296-3787 if you have any questions or need further information regarding this request.

Sincerely,

Jan Palenberg

Jan Palenberg, Student Worker
Environmental Compliance and Investigation Unit
Environmental Services Section
Room 124, Transportation Building

cc: B. Johnson/N. Radle/File
L.E. Foote/F. Pafko/ESS File

An Equal Opportunity Employer

RESPONDANTS TO COE/PCB & 7 FEDERAL AMENDMENTS RULEMAKING PACKAGE

JOHN CHELSTROM
NORTHERN STATES POWER CO.
414 NICOLLET MALL, 2ND FLOOR
MINNEAPOLIS, MINNESOTA 55401
<900400

TERRY GRAUMANN
215 SOUTH CASCADE STREET
OTTERTAIL POWER COMPANY
FERGUS FALLS, MINNESOTA 56535
<900501 FROM PFC LIST: PCB AFFECTED PARTY

JIM EGGAN
UNITED POWER ASSOCIATION
HIGHWAY 10
ELK RIVER, MINNESOTA 55330
<900501 FROM PFC LIST

FRANK FRISON
NO ADDRESS GIVEN
<900501 FROM PFC LIST

MR. DVORSKY
(CALLER TO SUE WELSH; NO ADDRESS)

DELMAR EHRICH
2200 NORWEST CENTER
MINNEAPOLIS, MINNESOTA 55402
<CONTACTED SUE WELSH; NBC SENT RULE 900508

BECKY COMSTOCK, ATTY
2200, 1ST BANK PLACE EAST
MINNEAPOLIS, MN 55402
<900515~ RQST CC OF RULE PKG

GARY CHRISTIANSON
MN/DOT
3485 HADLEY AVE. N.
OAKDALE, MN 55128
<900518 RQST PKG DUE TO NOTICE

JOHN SMITH
S.B. FOOT TANNING CO.
BENCH STREET
REDWING, MN 55066
<900518 RQST PKG DUE TO NOTICE; STAT. METHODS OF PARTICULAR INTEREST

MIKE NEVALA, C/O QUALITY CONTROL
METROPOLITAN WASTE CONTROL COMMISSION
230 EAST 5TH STREET
ST. PAUL, MINNESOTA 55101
<900521 CALLED; GENERAL INTEREST

MIKE J AHERN

MOOS & BARNETT
4800 NORWEST CENTER
MINNEAPOLIS, MINNESOTA 55402-4119
<900521 REQUESTED CC OF RULE/SONAR OF CRN(?) SENT COE RULE 900522/NBC

RICHARD B. CLUTE, ENVIRONMENTAL AFFAIRS COORDINATOR
WCI FREEZERS DIVISION
701 33RD AVENUE NORTH
ST. CLOUD, MINNESOTA 56301
<900518 WANTS A COPY OF FINAL RULE AS ADOPTED [REF: 900510 NOTICE OF INTENT?]
<SENT COPY OF 901004 RULE LANGUAGE AR1601 ON 901102.

JIM PINTA
JOHN MATHES & ASSOC.
701 RODI ROAD
PITTSBURG, PA 15235
<900522 BURLINGTON NORTHERN CLIENT; Q'S FOR WENDI TORMANEN; SENT CC OF RULEMAKING W/WENDI'S PKG.

ANDY POLZIN
TELLUS CONSULTANTS
1315 GLENWOOD AVENUE NORTH
MINNEAPOLIS, MINNESOTA 55405
<900523 WANTS CC OF SONAR [SENT]
<WANTS NOTICE OF SUBMITTAL TO ATTORNEY GENERAL [NOTE: NEED AFFIDAVITS]

JANE HARTLEY
MINNTAC
P.O. BOX 417
MT. IRON, MINNESOTA 55768
<900531 WANTS CC OF PCB RULE. SENT SAME DAY.

IVAN JACOBS, INTERESTED PARTY
MISSISSIPPI STREET METALS
800 MISSISSIPPI STREET
ST. PAUL, MN 55101 222-0533
<900605 WANTS CC OF FEDERAL LANGUAGE; REMELTS ALUMINUM W/SOME MIXED METALS; WANTED TO KNOW WHETHER AFFECTED BY PRIMARY ALUMINUM RELISTING; SENT FR 900605.

DEBBRA HOWARD: 900611 CALL REFERED BY WENDI TORMANEN; CLIENT PURCHASING SITE; XFER OF OWNERSHIP; WHAT IS REQUIRED UNDER NEW RULES? RESUBMIT LETTER, COMPLY WITH FEDERAL REGULATIONS. CC NOT DESIRED--HAD STATE REGISTER.

KEN ERPELDING
ENGINEERING AND ARCHITECTURE DIVISION, U. OF M.
319, 15TH AVENUE SOUTHEAST
MINNEAPOLIS, MINNESOTA 55455
<900612; SENT CC OF RULE PKG SAME DAY. INTERESTED IN COE.

STEVE CHRISTENSON
DORSEY & WHITNEY
2200 1ST BANK PLACE EAST
MPLS, MN 55402 PH: 340-5603
<900620; SENT CC OF RULE. NO PLAN TO COMMENT.

DARLENE WEBER

NAVAL SYSTEMS DIVISION, FMC
4800 EAST RIVER ROAD
M-375
MINNEAPOLIS, MINNESOTA 55459
<900626; SENT CC OF FR, BD ITEM, RULE LANGUAGE FOR STATISTICAL METHODS RULE.

CHERYL LOFRANO
HENNEPIN COUNTY
ENVIRONMENTAL ENGINEERING DIVISION
822 SOUTH 3RD STREET
SUITE 300
MINNEAPOLIS, MINNESOTA 55415 348-8992
<900628 RQST CC OF RULEPACKAGE

MR. W. GAIL DAY
WESTINGHOUSE TRANSFORM SERVICES
24700 ELEVEN MILE ROAD
SOUTHFIELD, MICHIGAN 48037
<LTR FROM MASSEY/SVANDA/MEYER/NANKIVEL; NBC REPLIED 900629; PCB REMOVAL PROCESS; GAVE INFO TO OBTAIN HW/PCB RULES; SENT CC OF REVISION; PUT ON HW HEARINGS MAIL LIST AT PIO.

MS. KATY BOONE
ARCA MINNESOTA
2601 BROADWAY ROAD N.E.
MPLS, MN 55413
<CALLED TO REQUEST BOARD ITEM; REFERRED BY WENDY TORMANEN; SENT SAME DAY

ROSEMARY LAVIN
HENNEPIN COUNTY
ENVIRONMENTAL ENGINEERING DIVISION
822 SOUTH 3RD STREET
SUITE 300
MINNEAPOLIS, MINNESOTA 55415
<CALLED AFTER ADOPTION MAILING REQUESTING TO BE PUT ON "AFFECTED" LIST AS A HENNEPING COUNTY REPRESENTATIVE; SENT REQUEST TO DARLENE 900803.

POST 2ND NOTICE

ST. PAUL, MN 55155
<SENT PKG

BRUCE JOHNSON, UNIT CHIEF
ENVIRONMENTAL COMPLIANCE AND INVESTIGATION UNIT
ENVIRONMENTAL SERVICES SECTION
ROOM 704 OR ROOM 124
TRANSPORTATION BUILDING
ST. PAUL, MN 55155
<900911 LETTER REQUESTING COPY OF SONAR; SENT ON 900919

WILLIAM J. KEPPEL
DORSEY & WHITNEY
2200 FIRST BANK PLACE EAST
MPLS, MN 55402
<900911 LETTER REQUESTING COPY OF THE RULES; SENT ON 900919

JENNIFER LEW CALLED SOME LAW OFFICE; TELEPHONE 229-2863.
<900913 REQUESTED DATE OF COMMENT PERIOD; TOLD HER 901010 ON 900918.

CHRIS KNEELAND, LOBBYIST [METALURGY?]
5256 OXFORD STREET
SHOREVIEW, MN 55126
<900926 SENT COPY OF MAY SR NOTICE W/900829 AMENDS SAME DAY

BRENT A. BYSTROM
ADV. ENVIRONMENTAL ENGINEER
3M DIVISION ENGINEERING
PO BOX 33331
ST. PAUL, MN 55133-3331
<900918 LTR SENT COPY OF PROPOSED RULES 900927 (RECD FROM COPYING 900927)

Office of the Revisor of Statutes

Administrative Rules

Carla M. Riehle
Assistant Revisor
297-2948

700 State Office Building
100 Constitution Avenue
St. Paul, MN 55155-1297

October 4, 1990

Nathan Cooley
Pollution Control Agency
Hazardous Waste Division
520 Lafayette Road
St. Paul, MN 55155

RE: File No. 1601

Dear Nathan:

Enclosed are four copies of your rule with the modifications you requested.

Please submit the rules to the Attorney General or the Office of Administrative Hearings, as appropriate.

If you have any questions or need further modifications, please call me.

Very truly yours,

CMR/dmm

Carla M. Riehle

Exhibit No. 10

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste and Polychlorinated Biphenyls, Minn. Rules Pts. 7001.0700, 7045.0020, 7045.0120, 7045.0135, 7045.0139, 7045.0141, 7045.0213, 7045.0484, 7045.0488, 7045.0528, 7045.0596, 7045.0600, 7045.0628, 7045.0629, 7100.0335, 7100.0340, 7100.0350, and 7100.0360

FINDINGS OF FACT, CONCLUSIONS, AND ORDER ADOPTING RULES

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

FINDINGS OF FACT

(1) 1. Notice of the MPCA's intent to adopt the above-entitled rule amendments without a public hearing was published in the State Register (SR) on May 21, 1990 (14 SR 2695) and on September 10, 1990 (15 SR 610). The September notice was sent by mail to all persons on the list maintained by the MPCA pursuant to Minn. Stat. §§ 14.14, subd. 1a. and 14.22 (1988) on September 7, 1990.

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

(4) 3. All persons were given the opportunity to submit comments on the rule amendments for 30 days after SR notice of the proposed rulemaking. The 30-day comment period, as set out in the notice, expired on October 10, 1990.

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

(7) 5. One request for notice of submission of the adopted rule amendments to the Attorney General was received by the MPCA. The requestor, Andy Polzin of Tellus Consultants, 1315 Glenwood Avenue North, Minneapolis, Minnesota 55405, will be notified when the amendments are submitted to the Attorney General.

Exhibit No. 12

(6)

6. The MPCA received 1 letter of comment on these amendments, that being from the U.S. Environmental Protection Agency (EPA). Also, the MPCA determined two minor grammatical corrections which the EPA affirmed would clarify the intent of the federal rule. The MPCA finds that the following five modifications [a) to e)] to Minn. Rules pt. 7045.0484 (Ground Water Protection) are justified by the record in this proceeding:

a) The EPA commented as follows on the revision to Minn. Rules part 7045.0484, subp. 11, item H: 'Please delete the comma from the phrase "practical quantification limits". The phrase, practical quantification limits (pql's), defined in 40 CFR Part 264 Appendix IX, does not contain a comma.' The MPCA had inserted the comma errantly believing the federally promulgated phrase meant "Where [it is] practical[,] quantification limits are used...." The modified Minn. Rules text follows:

"7045.0484 GROUNDWATER PROTECTION.

[For text of subps. 1 to 10, see Minn. Rules]

Subp. 11. General groundwater monitoring requirements.

[For text of subp. 11, items A to G, see Minn. Rules]

H. The owner or operator shall specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the commissioner, will be specified in the facility permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical, quantification limits are used in any of the following statistical procedures to comply with item I, subitem (5), the practical quantification limits must be proposed by the owner or operator and approved by the commissioner. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in item I.

[For text of subp. 11, item I to subp. 14, see Minn. Rule]"

Correcting this phrase to match EPA language by removing the comma is needed and reasonable in order to clarify the rule and to provide consistency with the federally defined phrase. The rule does not change substantially as a result of this correction.

b) The MPCA staff discovered the grammatical correction shown in the following Minn. Rule text:

"7045.0484 GROUNDWATER PROTECTION.

[For text of subps. 1 to 11, see Minn. Rules]

Subp. 12. Detection monitoring program.

[For text of subp. 12, items A to E, see Minn. Rule]

F. The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter ~~of~~ or hazardous constituent specified in the permit under item A at a frequency specified under item D.

[For text of subp. 12, item G to subp. 14, see Minn. Rule]"

The grammatical correction is needed and reasonable in order to clarify the rule. The rule does not change substantially as a result of this correction.

c) The MPCA staff discovered the grammatical correction shown in the following Minn. Rule text:

"7045.0484 GROUNDWATER PROTECTION.

[For text of subps. 1 to 11, see Minn. Rules]

Subp. 12. Detection monitoring program.

[For text of subp. 12, items A to G, subitem (3), see Minn. Rule]

(4) Within 90 days, submit to the commissioner an application for a permit modification to establish a compliance monitoring program meeting the requirements of subpart 13. The application must include the following information: (a) an identification of the concentration ~~or~~ of a part 7045.0143 constituent detected in the groundwater at each monitoring well at the compliance point;

[For text of subp. 12, item G, subitem (4), unit (b) to subp. 14, see Minn. Rule]"

The grammatical correction is needed and reasonable in order to clarify the rule. The rule does not change substantially as a result of this correction.

d) The EPA commented as follows with regard to Minn. Rules part 7045.0484, subpart 13, item D: "Please correct the sentence to specify item A of Minnesota's rule, rather than item C." Item C was cited by mistake. Both item A and item C discuss concentration limits described by permits. The modified Minn. Rules text follows:

"7045.0484 GROUNDWATER PROTECTION.

[For text of subps. 1 to 12, see Minn. Rules]

Subp. 13. Compliance monitoring program.

[For text of subp. 13, items A to C, see Minn. Rule]

D. The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, under item ~~C~~ A, at a frequency specified under item F.

[For text of subp. 13, item D, subitem (1) to subp. 14, see Minn. Rule]"

Correcting this erroneous citation is needed and reasonable in order to be consistent with the federal language and to clarify the requirement. The intent of the rule is not changed substantially by this correction.

e) The EPA commented as follows on the revision to Minn. Rules parts 7045.0528, subpart 1 and 7045.0628, subpart 1: 'The Federal citation refers to tank systems, while the State paragraph only refers to tanks. Please list "tank systems" in the above referenced paragraphs.' The revised Minn. Rule text follows:

"7045.0528 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. Scope. This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as part 7045.0450, and items A and B provide otherwise.

[For text of item A to subp. 11, see Minn. Rules]" and;

"7045.0628 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. Scope. This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as items A and B and part 7045.0552 provide otherwise.

[For text of item A to subp. 12, see Minn. Rules]"

The MPCA believes that it is needed and reasonable to correct the proposed rule language based on the comments received. The corrections serve to clarify the intent of the rules and to make them consistent with the federal regulations. The revisions do not result in a substantial change from the originally proposed amendments.

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

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

CONCLUSIONS

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

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

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

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

ORDER

NOW, THEREFORE, IT IS ORDERED, that the attached amendments to Minn. Rules pts. 7001.0700, 7045.0020, 7045.0120, 7045.0135, 7045.0139, 7045.0141, 7045.0213, 7045.0484, 7045.0488, 7045.0528, 7045.0596, 7045.0600, 7045.0628, 7045.0629, 7100.0335, 7100.0340, 7100.0350, and 7100.0360, governing the management of hazardous waste and polychlorinated biphenyls, are adopted pursuant to the authority vested in the MPCA by Minn. Stat. §§ 116.07, subd. 4 and 116.37, subd. 4 (1988).

Dated: 10/23/90

Gerald L. Willet
Commissioner

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rule Amendments Governing the Management of Hazardous Waste and Polychlorinated Biphenyls, Minn. Rules Pts. 7001.0700, 7045.0020, 7045.0120, 7045.0135, 7045.0139, 7045.0141, 7045.0213, 7045.0484, 7045.0488, 7045.0528, 7045.0596, 7045.0600, 7045.0628, 7045.0629, 7100.0335, 7100.0340, 7100.0350, and 7100.0360

FINDINGS OF FACT, CONCLUSIONS, AND ORDER ADOPTING RULES

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

FINDINGS OF FACT

1. Notice of the MPCA's intent to adopt the above-entitled rule amendments without a public hearing was published in the State Register (SR) on May 21, 1990 (14 SR 2695) and on September 10, 1990 (15 SR 610). The September notice was sent by mail to all persons on the list maintained by the MPCA pursuant to Minn. Stat. §§ 14.14, subd. 1a. and 14.22 (1988) on September 7, 1990.

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

3. All persons were given the opportunity to submit comments on the rule amendments for 30 days after SR notice of the proposed rulemaking. The 30-day comment period, as set out in the notice, expired on October 10, 1990.

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

5. One request for notice of submission of the adopted rule amendments to the Attorney General was received by the MPCA. The requestor, Andy Polzin of Tellus Consultants, 1315 Glenwood Avenue North, Minneapolis, Minnesota 55405, will be notified when the amendments are submitted to the Attorney General.

6. The MPCA received 1 letter of comment on these amendments, that being from the U.S. Environmental Protection Agency (EPA). Also, the MPCA determined two minor grammatical corrections which the EPA affirmed would clarify the intent of the federal rule. The MPCA finds that the following five modifications [a) to e)] to Minn. Rules pt. 7045.0484 (Ground Water Protection) are justified by the record in this proceeding:

a) The EPA commented as follows on the revision to Minn. Rules part 7045.0484, subp. 11, item H: 'Please delete the comma from the phrase "practical quantification limits". The phrase, practical quantification limits (pql's), defined in 40 CFR Part 264 Appendix IX, does not contain a comma.' The MPCA had inserted the comma errantly believing the federally promulgated phrase meant "Where [it is] practical[,] quantification limits are used...." The modified Minn. Rules text follows:

"7045.0484 GROUNDWATER PROTECTION.

[For text of subps. 1 to 10, see Minn. Rules]

Subp. 11. General groundwater monitoring requirements.

[For text of subp. 11, items A to G, see Minn. Rules]

H. The owner or operator shall specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the commissioner, will be specified in the facility permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical, quantification limits are used in any of the following statistical procedures to comply with item I, subitem (5), the practical quantification limits must be proposed by the owner or operator and approved by the commissioner. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in item I.

[For text of subp. 11, item I to subp. 14, see Minn. Rule]"

Correcting this phrase to match EPA language by removing the comma is needed and reasonable in order to clarify the rule and to provide consistency with the federally defined phrase. The rule does not change substantially as a result of this correction.

b) The MPCA staff discovered the grammatical correction shown in the following Minn. Rule text:

"7045.0484 GROUNDWATER PROTECTION.

[For text of subps. 1 to 11, see Minn. Rules]

Subp. 12. Detection monitoring program.

[For text of subp. 12, items A to E, see Minn. Rule]

F. The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter ~~of~~ or hazardous constituent specified in the permit under item A at a frequency specified under item D.

[For text of subp. 12, item G to subp. 14, see Minn. Rule]"

The grammatical correction is needed and reasonable in order to clarify the rule. The rule does not change substantially as a result of this correction.

c) The MPCA staff discovered the grammatical correction shown in the following Minn. Rule text:

"7045.0484 GROUNDWATER PROTECTION.

[For text of subps. 1 to 11, see Minn. Rules]

Subp. 12. Detection monitoring program.

[For text of subp. 12, items A to G, subitem (3), see Minn. Rule]

(4) Within 90 days, submit to the commissioner an application for a permit modification to establish a compliance monitoring program meeting the requirements of subpart 13. The application must include the following information: (a) an identification of the concentration ~~or~~ of a part 7045.0143 constituent detected in the groundwater at each monitoring well at the compliance point;

[For text of subp. 12, item G, subitem (4), unit (b) to subp. 14, see Minn. Rule]"

The grammatical correction is needed and reasonable in order to clarify the rule. The rule does not change substantially as a result of this correction.

d) The EPA commented as follows with regard to Minn. Rules part 7045.0484, subpart 13, item D: "Please correct the sentence to specify item A of Minnesota's rule, rather than item C." Item C was cited by mistake. Both item A and item C discuss concentration limits described by permits. The modified Minn. Rules text follows:

"7045.0484 GROUNDWATER PROTECTION.

[For text of subps. 1 to 12, see Minn. Rules]

Subp. 13. Compliance monitoring program.

[For text of subp. 13, items A to C, see Minn. Rule]

D. The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, under item ~~C~~ A, at a frequency specified under item F.

[For text of subp. 13, item D, subitem (1) to subp. 14, see Minn. Rule]"

Correcting this erroneous citation is needed and reasonable in order to be consistent with the federal language and to clarify the requirement. The intent of the rule is not changed substantially by this correction.

e) The EPA commented as follows on the revision to Minn. Rules parts 7045.0528, subpart 1 and 7045.0628, subpart 1: 'The Federal citation refers to tank systems, while the State paragraph only refers to tanks. Please list "tank systems" in the above referenced paragraphs.' The revised Minn. Rule text follows:

"7045.0528 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. Scope. This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as part 7045.0450, and items A and B provide otherwise.

[For text of item A to subp. 11, see Minn. Rules]" and;

"7045.0628 ~~TANKS~~ TANK SYSTEMS.

Subpart 1. Scope. This part applies to owners and operators of facilities that use ~~tanks~~ tank systems to treat or store hazardous waste, except as items A and B and part 7045.0552 provide otherwise.

[For text of item A to subp. 12, see Minn. Rules]"

The MPCA believes that it is needed and reasonable to correct the proposed rule language based on the comments received. The corrections serve to clarify the intent of the rules and to make them consistent with the federal regulations. The revisions do not result in a substantial change from the originally proposed amendments.

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

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

CONCLUSIONS

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

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

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

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

ORDER

NOW, THEREFORE, IT IS ORDERED, that the attached amendments to Minn. Rules pts. 7001.0700, 7045.0020, 7045.0120, 7045.0135, 7045.0139, 7045.0141, 7045.0213, 7045.0484, 7045.0488, 7045.0528, 7045.0596, 7045.0600, 7045.0628, 7045.0629, 7100.0335, 7100.0340, 7100.0350, and 7100.0360, governing the management of hazardous waste and polychlorinated biphenyls, are adopted pursuant to the authority vested in the MPCA by Minn. Stat. §§ 116.07, subd. 4 and 116.37, subd. 4 (1988).

Dated: 10/23/90

Gerald L. Willet

Gerald L. Willet
Commissioner

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed
Rule Amendments Governing
the Management of Hazardous Waste
and Polychlorinated Biphenyls,
Minn. Rules Chs. 7001, 7045, and
7100

AFFIDAVIT OF RECEIVING
NO REQUESTS FOR
NOTIFICATION OF SUBMISSION
OF RULES ADOPTED WITHOUT
PUBLIC HEARING TO THE
ATTORNEY GENERAL
SUBSEQUENT TO SECOND NOTICE

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Nathan B. Cooley, being duly sworn says:

1. That he is named in the Notice of Intent to Adopt Rules Without a Public Hearing (15 S.R. 610, September 10, 1990) as the person to receive requests for notification of submission of rule adopted without a public hearing to the Attorney General concerning the above-entitled matter.

2. That the comment period set forth in the notice terminated at 4:30 p.m. on October 10, 1990.

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

Nathan B. Cooley

Subscribed and sworn to before me
this 5 day of November 1990.

Ardith M. Vos
Notary Public

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

Exhibit No. 13

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed
Rule Amendments Governing
the Management of Hazardous Waste
and Polychlorinated Biphenyls,
Minn. Rules Chs. 7001, 7045, and 7100

AFFIDAVIT OF RECEIVING ONLY ONE REQUEST FOR NOTIFICATION OF SUBMISSION OF RULES ADOPTED WITHOUT PUBLIC HEARING TO THE ATTORNEY GENERAL

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Nathan B. Cooley, being duly sworn says:

1. That he is named in the Notice of Intent to Adopt Rules Without a Public Hearing (14 SR 2695, May 21, 1990) as the person to receive requests for notification of submission of rule adopted without a public hearing to the Attorney General concerning the above-entitled matter.

2. That the comment period set forth in the notice terminated at 4:30 p.m. on June 21, 1990.

3. That there was only one request received by the the Minnesota Pollution Control Agency for notification of the submission of rules adopted without a public hearing to the Attorney General concerning the above-entitled matter, and that this request came by telephone from Mr. Andy Polzin, Tellus Consultants, 1315 Glenwood Ave North, Minneapolis, Minnesota, 55405 on May 23, 1990.

Nathan B. Cooley

Subscribed and sworn to before me
this 20th day of August, 1990.

Diane Fox
Notary Public

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

Exhibit No. 15