

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Proposed
Amendment of Rules of the
Pollution Control Agency
Governing the Management of
Hazardous Waste, 6 MCAR
§§ 4.9001 - 4.9005 and
4.9008 - 4.9010 to be
Renumbered as 6 MCAR
§§ 4.9100 - 4.9560

STATEMENT OF NEED
AND REASONABLENESS

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**Exhibit
3043**

State of Minnesota v. 3M Co.,
Court File No. 27-CV-10-28862

3043.0001

K. Repealers

Rules 6 MCAR §§ 4.9004, 4.9006I., 4.9008 and 4.9010 and the Appendices to the existing rules are being repealed.

Rule 6 MCAR § 4.9004 governs the location, operation and closure of a hazardous waste facility. This subject is addressed by the proposed rules in Chapter Five. The proposed rules are much more comprehensive than the existing rules and retaining the existing rules would be redundant.

Rule 6 MCAR § 4.9006I. sets forth the persons and/or facilities which are not required to have a hazardous waste facility permit. These exemptions are now covered by proposed rules 6 MCAR §§ 4.9128C., 4.9129 and 4.9280. Retaining the existing rule would be redundant.

Rule 6 MCAR § 4.9008 governs the use of hazardous waste shipping papers. The provisions of this rule are now contained in proposed rules 6 MCAR §§ 4.9212, 4.9213, 4.9255, 4.9256 and 4.9257 and retaining this rule would be redundant.

Rule 6 MCAR § 4.9010 covers spillages and leakages of hazardous waste. The provisions of this rule are now contained in proposed rule 6 MCAR § 4.9259 and in the proposed rules in Chapters Five and Six. Retaining this rule would also be redundant.

Because the provisions of these rules are covered in the proposed rules, the existing rules are no longer needed. It is therefore reasonable to repeal these rules.

VI. Conclusion

The Agency staff has, in this document and its exhibits, made its presentation of facts establishing the need for and reasonableness of the proposed amendments to the hazardous waste rules, 6 MCAR §§ 4.9100 - 4.9560. This document constitutes the Agency's Statement of Need and Reasonableness for the proposed amendments to the hazardous waste rules.

Part VII. List of Exhibits.

In compiling the proposed amendments to the hazardous waste rules, the Agency staff relied on documents prepared by EPA to explain the reasoning and supportive data used in developing EPA's hazardous waste regulations and on the information published in the Federal Register in conjunction with the publication of the EPA regulations. The following documents were utilized by Agency staff in developing these rules and are relied on by the Agency as further support for the reasonableness of a 6 MCAR §§ 4.9100 - 4.9560. These documents are available for review at the Agency's office at 1935 West County Road B-2, Roseville, Minnesota 55113.

A. General

U.S.E.P.A. Background Document: Regulatory Analysis, April 30, 1980

B. Chapter One

U.S.E.P.A. Background Document: Definitions and Provisions of Confidentiality (Part 260) April, 1980

Federal Register:

45 F.R. 33066 May 19, 1980
45 F.R. 72027 October 30, 1980
45 F.R. 76618 November 19, 1980
46 F.R. 2344 January 9, 1981
46 F.R. 35246 July 7, 1981
46 F.R. 56581 November 17 1981

C. Chapter Two

U.S.E.P.A. Background Document: Criteria for Identifying Characteristics of Hazardous Waste (§ 261.10); Criteria for Listing Hazardous Waste (§ 261.11); Petitions to Amend Part 261 to Exclude a Waste Produced at a Particular Facility (§ 261.11) April 30, 1980

U.S.E.P.A. Background Document: Characteristic of Corrosivity (Part 261.22) May 2, 1980

U.S.E.P.A. Background Document: Characteristic of Ignitability (Part 261.21) May 2, 1980

U.S.E.P.A. Background Document: Characteristic of Reactivity (Part 261.23) May 2, 1980

U.S.E.P.A. Background Document: EP Toxicity Characteristic (Part 261.24) May 2, 1980

U.S.E.P.A. Background Document: Listing of Hazardous Waste (Parts 261.31 and 261.32), May 2, 1980
Appendix A - Health and Environmental Profiles, April 30, 1980
Appendix B - Fate and Transport of Hazardous Constituents, May 2, 1980

U.S.E.P.A. Background Document: Identification and Listing of Hazardous Waste, April, 1980

U.S.E.P.A. Background Document: Hazardous Waste from Discarding of Commercial Chemical Products and the Containers and Spill Residues Thereof (Part 261.33) April 30, 1980

U.S.E.P.A. Background Document: Degree of Hazard, April, 1980

Federal Register:

45 F.R. 33084 May 19, 1980
45 F.R. 47832 July 16, 1980
45 F.R. 72035 October 30, 1980
45 F.R. 74884 November 12, 1980
45 F.R. 78524 November 25, 1980
45 F.R. 80286 December 4, 1980
46 F.R. 4614 January 16, 1981

D. Chapter Three

U.S.E.P.A. Background Document: Special Requirements for Hazardous Waste Generated by Small Quantity Generators (Part 261.5) April 28, 1980

Federal Register:

45 F.R. 33084 May 19, 1980
45 F.R. 33140 May 19, 1980
45 F.R. 76618 November 19, 1980
45 F.R. 78524 November 25, 1980
45 F.R. 86966 December 31, 1980

E. Chapter Four

Federal Register:

45 F.R. 33150 May 19, 1980
45 F.R. 86966 December 31, 1980

F. Chapters Five and Six

U.S.E.P.A. Background Document: General Facility Standards: General Waste Analysis and Interim Status Standards for General Waste Analysis (Parts 264.13 and 265.13) April 29, 1980

U.S.E.P.A. Background Document: General Facility Standards: Standards of Security (Part 264.14); Interim Status Standards for Security (Part 265.14) April 29, 1980

U.S.E.P.A. Background Document: General Facility Standards: Standards for Personnel Training (Part 264.16); Interim Status Standards for Personnel Training (Part 265.16) April 29, 1980

U.S.E.P.A. Background Document: General Facility Standards: Preparedness and Prevention; Contingency Plan Emergency Procedures, April, 1980

U.S.E.P.A. Background Document: General Facility Standards: Manifest System, Recordkeeping, and Reporting (Part 264 and Part 265) April, 1980

U.S.E.P.A. Background Document: Groundwater Monitoring (Part 265) May 2, 1980

U.S.E.P.A. Background Document: Interim Status Standards for Closure and Post-Closure Care (Part 265) April 1980

U.S.E.P.A. Background Document: Interim Status Financial Requirements (Part 265) April 25, 1980

- U.S.E.P.A. Background Document: Parts 264 and 265, Subpart H. Financial Requirements, Final Regulations, December 31, 1980
- U.S.E.P.A. Background Document: Interim Status Standards for the Use and Management of Containers (Part 265); Interim Status Standards for Waste Piles (Part 265) April, 1980
- U.S.E.P.A. Background Document: Interim Status Standards for Tanks (Part 265); Interim Status Standards for Chemical, Physical and Biological Treatment (Part 265) April 29, 1980
- U.S.E.P.A. Background Document: Interim Status Standards for Land Treatment Facilities (Part 265) April 30, 1980
- U.S.E.P.A. Background Document: Interim Status Standards for Landfills (Part 265) May 2, 1980
- U.S.E.P.A. Background Document: Interim Status Standards for Hazardous Waste Incineration (Part 265) April, 1980
- U.S.E.P.A. Background Document: Interim Status Standards for Hazardous Waste Facilities for Thermal Treatment Processes Other than Incineration and Open Burning (Part 265) April, 1980
- U.S.E.P.A. Background Document: Standards for Inspection (Part 264.15); Interim Status Standards for Inspection (Part 265.15) April, 1980
- U.S.E.P.A. Background Document: Section 265.220 Final Interim Status Standards for Surface Impoundments, April 28, 1980
- U.S.E.P.A. General Issues Concerning Interim Status Standards, April, 1980
- U.S.E.P.A. Background Document: Incineration Standards (Parts 264 265) December, 1980

Federal Register:

45 F.R. 33154 May 19, 1980
45 F.R. 66816 October 8, 1980
45 F.R. 72024 October 30, 1980
45 F.R. 76618 November 19, 1980
45 F.R. 82964 December 17, 1980
45 F.R. 86966 December 31, 1980
46 F.R. 2802 January 12, 1981
46 F.R. 7666 January 23, 1981
46 F.R. 27119 May 18, 1981
46 F.R. 38313 May 26, 1981

G. Chapter Seven

Federal Register:

45 F.R. 76074 November 17, 1980

U.S.E.P.A. Memorandum on EPA Regulation of Utility Waste, February 8, 1981 with attached letter to Paul Emier Jr. from N. Dietrick dated January 13, 1981

H. Chapter Eight

Federal Register:

46 F.R. 11126 February 5, 1981
46 F.R. 12414 February 13, 1981

Dated: June 4, 1982


LOUIS J. BRAMMHORST
Executive Director

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Definitions (6 MCAR § 4.9100)

The Agency staff has reviewed the comments received from the Minnesota Association of Commerce and Industry (MACI) regarding the definition section of the proposed hazardous waste rules. The staff has compared the definitions in question to current state and federal rules, and has taken into consideration the intent behind each definition in making the following recommendations.

A.8. - "Components of the Waste" - this definition was taken from the present hazardous waste rules and was originally intended to cover not only the chemical elements contained in a particular waste but also those known to occur as a result of decomposition of the waste. The staff agrees with MACI that the recent inclusion of the definitions for "constituent" and "decomposition byproducts" renders the definition of "components of the waste" obsolete. Therefore, the staff has removed this definition from the proposed hazardous waste rules.

A.20. - "Discarded" - this definition included not only discarded wastes but also wastes which may be discarded in order to cover the same waste universe as the federal regulations. This is needed to obtain interim authorization. The federal rules define their universe of waste in the definitions of solid and hazardous wastes. This was not possible to do in the state rules since solid waste and hazardous waste are defined by statute. Therefore, having been made aware of industry's concern over this definition during earlier discussions and since coverage equivalent to the federal program is obtainable through other mechanisms the staff had removed the phrase "may be discarded" from this definition. However, the change was not made on the original copy and this oversight was missed before the latest issue of the rules was printed.

A.66. - "Owner or Operator" - the combining of state and federal rules was intended to eliminate the need to continually repeat the terms owner and operator and not to elevate a crew foreman to the status of an owner. The staff agrees with MACI that unnecessary confusion is caused by combining the definitions and will revise the proposed rules accordingly.

Burlington Northern also commented on the definition section. They have suggested that the inclusion of transport vehicles in the definition of container is inappropriate. The inclusion of transport vehicles in this definition was intended to eliminate the long term storage of wastes in transport vehicles without any safeguards. However, the requirement that a hazardous waste must be removed from a site within 90 days or that site must obtain a storage permit and thus comply with the applicable requirements eliminates this concern. Therefore, the staff agrees with Burlington Northern and will revise the proposed hazardous waste rules to eliminate transport vehicles from the definition of container provided they are on site less than 90 days.

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Exempt Wastes - Fly Ash, Bottom Ash, etc.

The Minnesota/Wisconsin Power Suppliers have raised two issues, in their comment letters, concerning the exemption granted to fly ash, bottom ash, slag, and flue gas emission control waste from the state hazardous waste rules (6 MCAR § 4.9130 B.7.). The issues concern the extent to which other utility wastes are exempt and why the exemption does not include utility wastes if hazardous waste is included in the fuel. The Agency staff has reviewed the comments and will respond to each issue separately.

Issue 1. The exemption given in draft 6 MCAR § 4.9130 B.7. does not apply to other utility wastes that have already been excluded by the U.S. EPA.

In reviewing the comments received by the Power Suppliers and the attached document containing EPA's interpretation of the federal exemption rule, the Agency staff disagrees that the state exemption of utility wastes should be extended to other wastes generated in conjunction with the burning of fossil fuels and codisposed or cotreated with the already mentioned exempt wastes. The hazardous waste programs, both on the state and federal level, are based on regulating process wastes. With this approach, wastes are evaluated before being mixed with other wastes to gauge the potential hazard posed by that waste stream. Based on that evaluation, the proper management for that waste stream can be determined.

This approach to waste evaluation is currently required of all generators of hazardous waste. The Agency staff sees no compelling reason why the utilities should not similarly evaluate each of their waste streams.

Issue 2. The exemption given in draft 6 MCAR § 4.9130 B.7. does not apply to any utility wastes if any amount of hazardous waste is being burned as a fuel for the purpose of recovering usable energy.

This comment is a reversal of the position taken by the power suppliers in a meeting with the staff; however, the staff has reviewed these comments in conjunction with EPA's interpretation, as well as, the Agency's objectives concerning the hazardous waste program. The Agency staff does not disagree that the burning of some types of hazardous waste is good a management technique for disposing of the waste and yet recovering some benefit from it. However, the staff can not agree that allowing this practice should exclude the residues generated from being evaluated and managed as a hazardous waste if it meets the appropriate characteristics. Additionally, neither the federal nor state hazardous waste program excludes wastes from regulation based on future proper management techniques as this does not remove the inherent hazardous properties a waste may have.

Both of these issues deal primarily with waste evaluation and do not require any additional "burden" beyond providing the Agency with the evaluation if that evaluation shows that public health and the environment is not adversely affected.

Exempt Wastes - Sewered Wastes

The Agency staff has reviewed the Minnesota Association of Commerce and Industry's (MACI) comments concerning the proposed exemption of sewered wastes (6 MCAR § 4.9130 B.2.(b)). Under this paragraph, any mixture of untreated sanitary sewage and other wastes discharged to a sanitary sewer system is excluded from regulation under the hazardous waste rules; but the individual waste streams are not. MACI has expressed concern over the more restrictive nature of this exemption compared to the federal exemption which excludes any mixture passing through a sewage system to a publicly owned treatment facility.

As discussed in the MACI comment letter, there are two programs (the pretreatment and the metro counties hazardous waste programs) which regulate process wastewater streams discharged to a sanitary sewage system. The objectives of each program will be outlined in addition to a discussion on the need for MPCA regulation of these process streams.

The objective of a pretreatment program is the prevention of interfering pollutants being introduced to a treatment system. The program regulates the effluent from pretreatment units to prevent a treatment facility from exceeding permit standards, prevent the build-up of hazardous waste residues in treatment sludges and prevent the pass-through of toxics into the environment. Under the Federal Clean Water Act and the National Pollutant Discharge Elimination System (NPDES) permit program, this regulatory control may be delegated to individual municipalities. In order to obtain this authority, the municipality or other regulatory agency operating the treatment facility must submit a pretreatment program to the Agency for review and approval. Upon receiving this approval, the individual municipality would control the type, quality and quantity of process wastewater entering the sewage system with the Agency conducting periodic reviews. To date, these approvals have been limited and no approval has been issued concerning the program submitted by the Metropolitan Waste Control Commission (MWCC) for the seven county metropolitan area.

In reviewing each pretreatment program, the Agency must be assured that the proposed program will meet the previously discussed objectives and that the individual municipality or other regulatory agency has the ability to monitor and enforce the program. The municipality must be able to analyze the effects a particular industry's waste stream may have on the entire treatment process in order to meet the pretreatment program's objectives. This means having qualified staff capable of analyzing a situation not only intuitively but analytically, which could be a costly endeavor. A small municipality would normally not have the financial capabilities to hire qualified staff in this area since the number of industries located in the community would not require full-time staffing.

In using MWCC as an example, the Agency must approve their pretreatment program prior to relinquishing its regulatory authority to the Commission. Therefore, any discrepancies between the state hazardous waste rules and what is acceptable for discharge under MWCC's pretreatment program would have to coincide in such a manner as to adequately meet the pretreatment program objectives

discussed earlier. Currently, the MWCC pretreatment program has not been approved by the Agency, and, thus, the Agency is responsible for the quantity and quality of process wastewater discharged to the sewer system. The Agency is, however, working closely with the MWCC in obtaining an approved pretreatment program.

As mandated by state law, the metro counties are currently administering hazardous waste rules which are essentially identical to the state rules - the difference being the county programs have a fee structure for hazardous waste licenses. The fee is currently based on the volume and number of wastes and was established to pay the costs of administering the program. The counties are currently reviewing the fee structure in order to remove the financial burden on industries sewerage large quantities of hazardous waste caused by the overlap in fees paid to a county and MWCC. This would, along with a review of current county programs, assure consistency, and reduce the concerns MACI has expressed concerning the costs experienced due to overlapping programs.

The reasons for maintaining sewered wastes in the hazardous waste program are twofold, information and control. To establish and administer an effective program, the Agency, counties, and municipalities requesting the authority to administer a pretreatment program must be aware of the quantities, characteristics, location and management of each hazardous waste regardless of its destination. This information is needed in order to decide the proper management technique and level of control. Therefore, all wastes which pose a hazard to human health or the environment must be included in the system to ensure they are subject to the proper level of control.

Not all wastes capable of being discharged to a sewage system are suitable for treatment at a wastewater treatment facility, and this can not be determined unless the type of waste is known. Thus, the coverage of individual process waste streams is retained within the hazardous waste program.

Another problem is created when sewered wastes are exempted from the hazardous waste program. This problem is the tendency to encourage sewerage of hazardous wastes whether this is an appropriate management technique or not. This undesirable effect would be aggravated by the fact that the pretreatment program is aimed at process wastes. Since not all hazardous wastes are process wastes, some wastes would probably be overlooked.

Finally, the information obtained by including the effluent from pretreatment units within the hazardous waste program serves two purposes. In the pretreatment program, the information protects the treatment facility and in turn the environment. In the hazardous waste program, the information will help assure all hazardous wastes are being properly managed and will be useful in making program management decisions by the counties and the Agency.

Identification and Listing - Criteria

The staff has reviewed the comments by MACI that the criteria section (6 MCAR § 4.9132) is essential and should be identical to EPA. This section was initially copied from EPA language, as was most of this set of rules merely as a starting point. Upon evaluation, the staff finds that both the criteria and the delisting procedures (6 MCAR § 4.9131 B.) are redundant since the Agency has other mechanisms to accomplish the same functions. The criteria are unnecessary since both characteristics and lists of hazardous wastes are established through rulemaking which provides a forum for input from industry, environmental groups, and the general public. The delisting procedures which are essential to the federal system are unnecessary in the state system due to the existence of a variance mechanism. A variance request under Minnesota Rule MPC 6 provides for the same case by case flexibility as the delisting procedure. Therefore, since both of these provisions are unnecessary and add to the length and complexity of the rule, they should be deleted.

Corrosivity

The Agency staff disagrees with the contention that wastes with a pH level between 2 and 3 are not hazardous. The example of hydrochloric acid (pH 3) having "virtually" no effect on eye tissue is but one case. The comment did not address the effects of the same acid at a pH of 2.1 nor any other specific example between 2 and 2.5. Neither did they address other acids which are hazardous in this range such as hydrofluoric acid. In addition, although EPA changed to a lower pH limit of 2, their background documents on this issue state:

... sensitive human tissue may be damaged when contacted with substances exhibiting pH levels below 2.5...

and further:

... studies on corneal tissue demonstrated that injury was sustained on contact with substances exhibiting pH levels below 2.5...

It is dangerous to quote an example of one or two compounds which do not pose a hazard and extend that to all other compounds. People will be exposed to these wastes and should be protected by proper containers, labeling, and other proper management techniques. EPA has admitted that some of the wastes they are not regulating do pose a hazard to human health. There seems to be no good reason for the Agency to create a similar lack of protection in Minnesota.

Toxicity

The Agency received the following comments on the toxicity characteristic:

- 1) A second test for toxicity is inconsistent with EPA requirements. (Koch/Ashland and MACI)
- 2) The toxicity tests are unavailable, not standardized, not reproducible and expensive. (Koch/Ashland, MACI, and Power Suppliers)
- 3) The Agency has authority to list toxic wastes. (Koch/Ashland and MACI)
- 4) The toxicity characteristic will result in restriction on the free movement across state borders of hazardous wastes for treatment, storage and disposal. (Koch/Ashland and MACI)
- 5) Industry is unaware of any waste streams which are toxic but not covered by the federal program, therefore, the problem is small or non-existent. (MACI)
- 6) There are discrepancies between the criteria (6 MCAR § 4.9132A) and the toxicity characteristic. (6 MCAR § 4.9133 E.1.) (MACI)
- 7) The toxicity adds a third element to the characteristics and list system of regulating hazardous wastes. (Power Suppliers)

The following response addresses each of the industry comments in the order listed above:

- 1) The toxicity characteristic is not the "second" test for toxicity, it is the only one. The EP Toxicity test, as presented by the EPA, is actually a test for concentration in a leachate of fourteen substances with known toxic properties. It evaluates only the presence of these compounds, not their toxicity or the presence or toxicity of other substances which may have equally toxic properties. Therefore, the toxicity characteristic, which can evaluate the toxicity of any waste stream, is different than the federal coverage. It definitely provides more adequate coverage of toxics, of which there are many more than fourteen, but is not inconsistent. The federal program as clearly stated in RCRA 3009:

"Sec. 3009. Upon the effective date of regulations under this subtitle no State or political subdivision may impose any requirements less stringent than those authorized under this subtitle respecting the same matter as governed by such regulations, except that if application of a regulation with respect to any matter under this subtitle is postponed or enjoined by the action of any court, no State or political subdivision shall be prohibited from acting with respect to the same aspect of such matter until such time as such regulation takes effect. Nothing in this title shall be construed to prohibit any State or political subdivision thereof from imposing any requirements, including those for site selection, which are more stringent than those imposed by such regulations.

The Minnesota hazardous waste program is not an isolated, excessively restrictive program as portrayed by representatives of industry. At least six of the states already authorized have larger "universes of waste" than

the federal system. In fact most states have somewhat more restrictive programs than the federal program which is intended to be a "national minimum."

The toxicity characteristic is not an addition to the hazardous waste regulatory system as portrayed. It is a current state requirement which has been in effect since June, 1979. This means anyone subject to this provision should have complied long ago and should not be overly concerned about its continuance.

- 2) Toxicity testing is currently available through many labs in Minnesota. For the most part the labs subcontract with another firm out of state for the toxicity testing but the service is readily available to Minnesota generators. Toxicity testing, by its nature, is less standardized than many chemical tests but through the requirements of the rule the important parameters such as dosage, time, test animal, and number of animals are laid out. The fact that toxicity test results are not exactly reproducible does not mean that it is not a valid indicator of the potential hazard posed by a waste. If the test is properly run the difference in results would only make a difference where the toxicity was close to the dividing line between hazardous and nonhazardous. This problem is inherent with any criteria/test situation. As for expense, this criteria has been in effect for 2 1/2 years and no actual examples of unreasonable expense have been shown by industry. The reason for this is that most industries have been able to find the necessary information in literature at little or no cost. This data has been accepted by the Agency and the Metropolitan Counties. However, if no information is available on a particular waste stream, we do not see how that waste can be properly managed without knowing its hazardous properties. The one-time cost of toxicity testing is a fair trade for the reduction of liability and potential harm to human health and the environment in future management of the waste.
- 3) It is true that the Agency has the authority to list wastes which have toxic properties. Unfortunately, there are problems with this approach. One problem, already being experienced by EPA, is that it is an expensive and slow process to list wastes. When this task is undertaken by government all new wastes which could be generated by Minnesota's industries must be evaluated. This process, which requires significant additions to budget and staff, is beyond the Agency's capabilities and quite possibly beyond EPA's capabilities as well. In addition, in order to list a waste as hazardous, the Agency must first become aware of the waste and have knowledge of that waste's characteristics. Again, this mechanism would be expensive to set up and could easily be more of a burden to industry than the toxicity characteristic. Conversely, when the evaluation of new wastes is performed by industry, two benefits are created: 1) the firm holding the responsibility and liability for the waste will gain in knowledge of the inherent hazards presented by the waste and which form of management will be safe and acceptable; and 2) only those wastes which are actually produced in Minnesota will be evaluated.

- 4) The comment that the toxicity characteristic will impede free movement of wastes across state borders and is therefore prohibited by Section 123.32 of the federal regulations is without basis. As discussed in the general portion of this response many other states will have a different "universe of wastes" from the federal, some by additions such as California and Michigan, others by deletions through the delisting process. In any event, some difference in coverage of wastes in each state is inevitable.
- 5) A statement by industry that they are unaware of any "Minnesota toxic" waste streams which are not otherwise covered by the federal program is somewhat less reassuring than a statement that there are none. One of the main gaps in the federal program is their coverage of toxics. The approximately 400 compounds on the § 261.33 e. acute hazardous waste list and the § 261.33 f. toxic waste list are only covered in their pure form. This means that any of these compounds could be in a waste stream at up to a 99 + % concentration and still not be classified as a hazardous waste under the federal system. An example would be a pesticide, such as Thimet, which contains phorate. Phorate is listed by EPA on the acute hazardous waste list but Thimet would not be covered. Thimet was among several other pesticides and herbicides which became wastes as a result of the Bilger Warehouse fire in Minneapolis in 1980. Since Thimet and some of the other pesticides were toxic, the Agency was able to prevent this material from going to a sanitary landfill. Instead, it was land treated on a bermed site, a much safer and more appropriate management technique. Another example of a waste which is toxic and exists in Minnesota but is not covered as such by EPA is trifluoroacetic acid. This compound has a toxicity of 200 mg/kg which easily exceeds (is lower than) the oral LD₅₀ standard of 500 mg/kg but is not listed by EPA.
- 6) There is a difference between EPA's criteria which lists the standards used to declare a waste actually hazardous, that is, dangerous even with careful handling, and the Minnesota standard which will classify these wastes as hazardous but will also encompass those wastes which should not be managed by routine waste management techniques (e.g. sent to a sanitary landfill). The Agency recognizes this difference by using EPA's small quantity exemption level of 1 kg/month for the actually hazardous waste list but using 1000 kg/month for the toxicity characteristic. Wastes which are hazardous according to the toxicity characteristic are, in general, less dangerous than those on the acute hazardous waste list but they are still hazardous.
- 7) Toxicity is not a "third element" added to the hazardous waste regulatory program. It is an already regulated characteristic which is defined by its ability to adversely affect living tissue. Like other characteristics there is data available for many compounds which indicate the level of toxicity. For those compounds which lack sufficient information, testing is readily available.

PCB's

The Minnesota Association of Commerce and Industry and the Minnesota/Wisconsin Power Suppliers commented that there was duplication and contradiction between the Certificate of Exemption rules (6 MCAR 4.038) and the Hazardous waste rules (6 MCAR 4.9134 E.) and therefore the hazardous waste rules were not necessary and would cause confusion.

The proposed PCB rules are intended to compliment the Certificate of Exemption rules, and "take over" when PCB or PCB items become waste. Applicable Certificate of Exemption rules and Federal PCB regulations (40 CFR 761.) referenced in the imposed rules would provide coverage of all concentrations of PCB, equivalent to the federal system, in excess of 50 parts per million. This coverage does not affect the Certificate of Exemption applicability since the hazardous waste rules deal with PCB and PCB items when they become waste.

The staff agrees that some clarifications are needed and propose to make the necessary additions or rewording as appropriate.

Disclosure Preparation and Generator Identification Numbers (6 MCAR § 4.9212)

The Agency staff received comments from MACI regarding the disclosure process and the information contained in a hazardous waste disclosure. The comments recommend that:

- 1) The Agency staff should justify the need for source/process information required in subparagraph C.1.;
- 2) Subparagraph C.2. which requires a listing of all non-exempt wastes determined by the generator to be non-hazardous be deleted;
- 3) Subparagraph C.3. which requires the chemical composition of each hazardous waste and anticipated fluctuations during normal operations be deleted;
- 4) Subparagraph C.4. which requires the concentration of each known or suspected EP constituent in a waste be deleted;
- 5) Subparagraph C.5. which requires a listing of all the hazardous properties displayed by a waste be deleted;
- 6) Subparagraph C.6. which requires, in the event of testing, the submission of sampling procedures, test results and test accuracies be deleted;
- 7) Subparagraph C.7. be modified in such a way that would allow the generator to sign a certification that a contingency plan is being maintained on-site and is available for inspection instead of submitting the contingency plan to the Agency;
- 8) Subparagraph C.8. which requires information regarding the names of transporters and facilities as well as quantities expected to be generated during the year be deleted;
- 9) Changes in management from the information contained in a disclosure in terms of the generators reporting requirements is not adequately addressed; and
- 10) The disclosure is an unnecessary carryover of the existing state rules and should be deleted.

The Agency staff has evaluated MACI's comments and the current draft of 6 MCAR § 4.9212 and shall address the issues in order.

The first issue regarding the source/process information is considered to be a necessary information requirement by the Agency staff. The hazardous waste program regulates individual process wastes. The deletion of this information as recommended by MACI and the simple reporting of "Waste X" on a disclosure does not provide the Agency with information needed in determining whether "Waste X" is from one process or is a mixture of process wastes. In addition, disclosure of the process/source may: 1) indicate hazardous properties of the waste overlooked by the generator; 2) allow the Agency to potentially recommend management changes which would reduce the quantity of hazardous waste generated; and 3) allow the Agency to potentially recommend changes in raw products which may result in reduced hazardous waste generation.

The second issue involving a list of nonexempt wastes determined by the generator to be non-hazardous has proven to be very valuable information to the Agency and the counties. Generators frequently list wastes as nonhazardous

because they have worked with the material, have not developed acute health effects and/or have not adequately evaluated the waste for hazardous properties. Several instances have occurred where the staff has required additional evaluation through literature and/or testing which has reversed the generator's initial nonhazardous determination. Generators frequently claim that a waste is nonhazardous because they are not aware of potential chronic health effects and environmental hazards which may result from mismanagement. The staff considers subparagraph C.2. as an essential element in a hazardous waste disclosure.

The third issue, regarding chemical composition information required in subparagraph C.3. should be modified by requiring the chemical composition for wastes determined to be hazardous due to the characteristics described in 6 MCAR § 4.9133. The Agency staff agrees that this information is not necessary for wastes considered hazardous because they meet a listing in 6 MCAR § 4.9134. The information is necessary, however, for wastes considered hazardous due to the characteristics described in 6 MCAR § 4.9133 since it may be used to ensure that the generator has disclosed the waste as hazardous for all of the characteristics which it displays.

The fourth issue involves information to be disclosed regarding the concentration of each EP constituent known or suspected to be in the waste. This is necessary since a waste may be hazardous or nonhazardous based upon the concentration of EP constituents. The Agency staff recognizes that a determination must be made on a representative sample of the waste at the time of the disclosure and that the concentration of an EP constituent in a waste may change due to changes in raw products and production upsets. As a result, the waste may change from a hazardous to a nonhazardous classification and vice versa. In this case, the generator shall report such a change in the annual report. The Agency staff does not intend that the generator, at the time of the disclosure, be aware of large concentration changes which may occur following submission of the disclosure. However, a representative sample of the waste may be taken if currently generated and evaluated. If the waste is newly generated following the submission of the disclosure, then this information shall be reported in the annual report. Finally, the staff agrees that the last sentence of subparagraph C.4. be deleted since the EP test procedure is provided.

The fifth issue regarding hazardous properties of the waste is considered an essential element in the disclosure. Although a generator may declare a waste as hazardous due to ignitability, the generator must know the other hazardous properties of the waste in order to: 1) know which rules he must comply with; 2) develop personnel training, emergency procedure and contingency plan programs; and 3) in developing options available for use, re-use, recycling, reclamation or disposal of the waste.

The sixth issue involves the submission of sampling procedures, test results and the accuracy of tests if testing is performed during the evaluation. The Agency staff concurs with MACI's recommendation that subparagraphs C.6.a. and C.6.c. be deleted since specific sampling and test procedures are required.

However, the staff considers subparagraph C.6.b., the submission of test results, essential in order to confirm evaluation results. The current program has revealed errors in disclosure information after test results were submitted due to oversight by generators.

The seventh issue involves the submission of contingency plans by the generator to the Agency. MACI has recommended that a certification be submitted stating that a certification be submitted stating that a contingency plan is available on-site for inspection. The Agency staff does not concur with MACI since the certification would require the Agency to inspect the site in order to review the contingency plan. The existing draft allows the Agency staff to review the plan with the disclosure for completeness and adequacy. The staff does, however, recommend amending the draft rule to allow a certification by the generator that the plan is being maintained for currency of information on-site and is available for staff review.

The eighth issue regarding waste management information is considered to be essential by the Agency staff. The deletion of this information would not allow the Agency staff to: 1) evaluate the compliance of proposed management by the hazardous waste generators; 2) require modifications in proposed management by new hazardous waste generators; 3) recommend alternatives to proposed methods of management by new hazardous waste generators; 4) verify reported quantities by those considering themselves to be small quantity generators; 5) be aware of and evaluate the acceptability of discharges into wastewater treatment systems; and 7) obtain information for the Waste Management Board's hazardous waste facility planning activities.

The ninth issue involves changes in management during the year from disclosed information. It is the intent of the Agency staff that all changes in wastes, quantities, and management be provided by the generator in the annual report. The Agency staff concurs with MACI that 6 MCAR § 4.9212 should be amended to clearly state the staff's intention.

The last issue generally involves MACI's belief that the disclosure is an unnecessary document and that the Agency should only utilize manifest and annual report information. The Agency staff does not concur with MACI on this issue and indeed considers the disclosure an essential document.

The disclosure is only to be prepared once and only by a new hazardous waste generator or a currently unknown generator. The staff believes that it is essential for a new hazardous waste generator to: 1) list and evaluate his wastes; 2) determine which are hazardous and for what reasons; 3) develop a sound program for training personnel regarding waste handling and emergency procedures based upon the properties of the waste; 4) develop contingency plans in case of emergencies; and 5) determine, based upon the properties of the waste, the use, re-use, recycling, reclamation and disposal options available to him.

The submission of the disclosure enters a hazardous waste generator into the regulatory system. MACI's recommendation to only utilize manifests and annual reports does not take into account new hazardous waste generators and current generators who have not disclosed and entered the system. Unless the Agency has a disclosure, the staff does not know who should be using manifests nor who should be submitting annual reports. In addition, the disclosure process commits the generator to carry out the points described above, and allows the staff to evaluate the new generators information and proposed management. It is not the staff's intention to require the generator to exactly predict changes in management plans, or the wastes and quantities to be generated during the year. It is designed to enter a new or previously unknown generator into the regulatory scheme. The disclosure is not to be filed by those generators with disclosures on file. Such generators must only file an annual report in order to maintain the currency of information.

In summary, the Agency staff considers the disclosure to be an essential element of the hazardous waste system and provides the staff with much better information in comparison to EPA's notification which only requires a list of the hazardous wastes produced. The staff believes minor changes in the disclosure information as outlined is acceptable, however, repeal of the disclosure requirement would cause significant problems to the Agency's hazardous waste program, efforts of the Waste Management Board, and, in the long-term, generators of hazardous waste.