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STATE OF MINNESOTA
MINNESOTA POLLUTION CONTROL AGENCY

In The Matter Of Proposed
Amendment Of Rules Governing
The Collection Of Household
Batteries, Minn. Rules Pts.
7001.0520, 7045.0020,
7045.0120, and 7045.0686.

STATEMENT OF NEED
AND REASONABLENESS

I. INTRODUCTION

The subject of this proceeding is the amendment of rules of the Minnesota Pollution Control Agency (hereinafter "Agency") governing the permitting, management, treatment, storage, and disposal of hazardous waste to specifically address the management of facilities for the collection of household batteries. These amendments will amend two chapters of Minnesota Rules, Minn. Rules chs. 7001 and 7045.

In 1990 the Minnesota Legislature signed into law (Minnesota Statutes, § 115A.9155 and 325E.125) certain measures to ensure that batteries would be managed in an environmentally sound manner. Among the provisions contained in the new law is a prohibition on the disposal in municipal solid waste of mercuric oxide, silver oxide, nickel-cadmium and sealed lead-acid batteries purchased for or used by a government agency, or an industrial, communications or medical facility. Coupled with this provision is a requirement that battery manufacturers establish a collection system to collect these types of batteries. Both of these portions of the new law became effective August 1, 1990.

Another important provision in the new law requires all alkaline batteries sold in Minnesota to contain no more than 0.025 percent mercury by February 1, 1992. An interim level of 0.3 percent must be met by January 1, 1991. MPCA staff believes that these mercury reductions will eventually allow these batteries to be regulated as nonhazardous wastes.

A third provision in the law requires that by July 1, 1993 rechargeable consumer products sold in Minnesota have a removable battery or battery pack so that the batteries can be removed when the product is disposed. In addition, rechargeable products must be labeled in a manner that informs the consumer about the type of electrode used in the battery and that the battery must be recycled or disposed of properly.

This Statement of Need and Reasonableness (hereinafter "Statement") is divided into eight parts. Following this introduction, Part II establishes the statutory authority for the amendments. Part III contains the Agency's explanation of the need for the proposed amendments. Part IV discusses the reasonableness of the proposed amendments. Part V 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, subd. 2 (1988). Part VI documents the economic factors the Agency considered in drafting the proposed amendments as required by Minn. Stat. § 116.07, subd. 6 (1988). Part VII sets forth the Agency's conclusion regarding the proposed amendments. Part VIII contains a list of the exhibits relied on by the Agency to support the proposed amendments. The exhibits, which are incorporated by reference into this Statement, are available for review at the Agency's offices at 520 Lafayette Road, St. Paul, Minnesota 55155.

II. STATUTORY AUTHORITY

The proposed amendments will govern the management of household battery collection programs. These collection programs are currently regulated by Minn. Rules pt. 7045.0310. However, the Agency is establishing the more specific proposed requirements under the Agency's statutory authority to adopt rules governing the management of hazardous waste as set forth in Minn. Stat. § 116.07, subd. 4.

III. NEED FOR THE PROPOSED AMENDMENTS

Minn. Stat. ch. 14 (1988) requires an Agency to make an affirmative presentation of facts establishing the need for and reasonableness of the rules or amendments as proposed. In general terms, this means that the 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. The need for the proposed amendments is discussed below.

Household batteries are a type of household hazardous waste. When household hazardous wastes are collected they are subject to regulation as hazardous waste. Collected household batteries are therefore currently regulated by Minn. Rules pt. 7045.0310.

Under the current rules, an operator of a household hazardous waste collection program is required to ship collected waste with a licensed hazardous waste transporter and to obtain a generator identification number prior to shipment of wastes. These requirements were necessary because the collected household hazardous wastes present a risk to the public if improperly transported and an administrative mechanism is needed to track the wastes from collection until disposal at a hazardous waste facility.

However, some types of household batteries (mercuric oxide, silver oxide and nickel-cadmium) are recyclable, and once collected can be sent for reclamation. Because these batteries have a value as a reclaimable product and because the risks to the public during transportation are minimal, they need not be as stringently regulated as other types of household hazardous wastes. In addition, household battery collection programs will be somewhat different from traditional household hazardous waste collection programs. Whereas many of the

materials collected at current household hazardous waste collections present a hazard to workers handling the material, household batteries present a minimal risk to persons handling them.

For the above described reasons the Agency believes that it is appropriate to apply different standards to household battery collection programs than currently apply to household hazardous waste programs. The Agency feels that the proposed amendments are needed to ensure the safe and efficient operation of these collection programs while encouraging the development and use of such programs.

IV. REASONABLENESS OF THE PROPOSED AMENDMENTS

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

A. General Reasonableness of the Proposed Amendments

The Agency approached the need to adopt rules for household battery collection programs by examining the hazardous waste rules which currently regulate household hazardous waste collection programs. The Agency has examined the rules applicable to household hazardous waste collection programs and has determined which of these rules are also necessary requirements for household battery collection programs in order to protect human health and the environment. The Agency has addressed the issues of collection, management, transportation and disposal of household batteries in a manner that will ensure worker and environmental protection while at the same time allowing these programs to continue and expand throughout the state. The Agency believes this approach to be reasonable.

B. Minn. Rules pt. 7001.0520 (Permit Requirements)

Subpart 2 Exclusions. A household hazardous waste collection program meeting the requirements in part 7045.0310, is not currently required to obtain a full hazardous waste facility permit. Since household batteries are a type of household hazardous waste, it is reasonable to also exclude household battery collection programs from the permit requirements if the operators meet the requirements of the proposed rules governing household battery programs. Collected batteries represent a minimal risk to human health and the environment and are reasonably regulated without a permit.

C. Minn. Rules pt. 7045.0020 (Definitions)

The current hazardous waste rules do not include definitions for the terms "household battery" and "waste battery" which may be interpreted in a number of different ways. The Agency believes it is reasonable to define these terms specifically so that there is a common understanding of the subject of these rules.

Subpart 37b. Household Battery. This term is already defined in Minn. Stat. § 115A.961, subd. 1 as "disposable or rechargeable dry cells commonly used as power sources for household or consumer products including, but not limited to, nickel-cadmium, alkaline, mercuric oxide, silver oxide, zinc oxide, lithium, and carbon-zinc batteries, but excluding lead-acid batteries". To avoid confusion between household generated batteries and business generated batteries, the definition of household batteries has been rewritten to read "disposable or rechargeable dry cells, generated by households, commonly used as power sources for household products including nickel-cadmium, alkaline, mercuric oxide, silver oxide, zinc oxide, lithium, and zinc-carbon batteries, but excluding lead-acid batteries. Because the proposed rules do not govern

batteries generated by business, this is a reasonable limitation of the term for the purposes of these rules. The Agency only intends that these rules apply to batteries generated by households.

Subpart 102a. Waste Household Battery. This term is defined as a household battery which is discarded before use. It is reasonable to define this term since the rules will only regulate spent or waste household batteries and not "new" household batteries.

Subparts 37c, household hazardous waste, 37d, household waste, and 102b, waste oil, were previously numbered 37b, 37c, and 102a, respectively. Their numbers are revised due to the insertion of the definitions for household battery (subpart 37b) and waste household battery (subpart 102a).

D. Minn. Rules pt. 7045.0210 (Exempt Wastes)

This part in the current rule exempts "collected household hazardous waste, to the extent that the requirements in part 7045.0310 are met, and household waste". The proposed change to item A would also exempt "collected spent or waste household batteries, to the extent that the requirements of part 7045.0686 are met".

Since an exemption exists for household hazardous wastes, and household batteries are a specific type of household hazardous waste, the Agency believes it is reasonable to specifically exempt household batteries from regulation as hazardous waste provided certain standards are met.

E. Minn. Rules pt. 7045.0686 (Special Requirements for the Management of Spent or Waste Household Batteries)

Subpart 1. Scope. This subpart identifies the regulated community governed by the proposed rules.

Any program which accepts or collects spent or waste household batteries will be regulated by the proposed rules. However, MPCA staff believe that it is

reasonable to more specifically identify the types of programs that will be collecting spent or waste household batteries in order to clearly focus the proposed rules on those programs. Item A establishes the scope of the proposed rules to generally apply to any program which accepts or collects spent or waste household batteries and additionally identifies the following programs as regulated: any program which is established by a resource recovery facility to segregate spent or waste household batteries from household waste; or any program which is established by a solid waste disposal facility to segregate spent or waste household batteries from household waste during processing activities. It is reasonable to provide as clear an understanding of the scope of the proposed rules as possible in order to address all potentially regulated programs and avoid ambiguity in the application of the rules.

All of the types of battery collection programs identified in the scope of the proposed rules are currently regulated under the existing rules governing household hazardous waste programs, Minn. Rules pt. 7045.0310. However, because the management and environmental concerns associated with the collection of spent or waste household batteries are different from the concerns associated with programs which address the collection of all types of household hazardous waste, it is reasonable to establish additional rules to specifically address those unique concerns.

Items B, C, and D specify the rules under which operators of household battery programs are governed for collection, transportation, storage, and reclamation of household batteries.

Operators who collect, transport, or store spent or waste household batteries which are then sent for recycling, but who do not reclaim them, are subject to regulation only under Minn. Rules pt. 7045.0686, subs. 2 (notification) and 3 (standards for storage). This would exempt them from the

rest of the hazardous waste rules and specifically from the requirements in Minn. Rules pt. 7045.0310 of using a licensed transporter and obtaining a generator identification number to transport collected materials. The Agency believes this is reasonable for two reasons. The batteries are being sent for recycling and therefore have a value which makes them less likely to be mismanaged. Also, batteries are relatively inert and therefore pose less of a hazard for shipping than other types of household hazardous waste.

Operators who collect, transport, or store spent or waste household batteries which are not recycled are subject to regulation under Minn. Rules pt. 7045.0686, subp. 3 and also pt. 7045.0310. The Agency believes it is reasonable to subject these operators to the increased requirements of Minn. Rules pt. 7045.0310 since the batteries they are collecting will not be recycled, and instead will be disposed of as hazardous waste. This means that there is an increased risk of mismanagement to avoid the cost of proper disposal.

Operators who collect, transport, store and also reclaim spent or waste household batteries are subject to regulation under Minn. Rules pt. 7045.0686, subps. 2, 3 and 4 (standards for facilities that store spent or waste household batteries before reclaiming them). Since these operations will be actually processing the batteries to reclaim metals the Agency feels it is reasonable to subject them to the same requirements as facilities which reclaim spent lead-acid batteries (Minn. Rules pts. 7045.0452 to 7045.0456; 7045.0460 to 7045.0470; 7045.0478 to 7045.0534; 7045.0544; 7045.0552 to 7045.0562; 7045.0566 to 7045.0578; 7045.0584 to 7045.0632 and the permitting requirements of chapter 7001 for hazardous waste storage facilities). These types of facilities represent an environmental risk and are appropriately regulated at a more stringent level. The specific risks and requirements are described in the discussion of each subpart.

Subpart 2. Notification. The proposed notification information will provide the Commissioner with the details on location of the program, names of operators, manner of storage, safety and emergency procedures, names of waste transporters, and other information necessary to describe the program. This provides a level of accountability similar to what is required for household hazardous waste collection programs. Because household batteries are a subset of household hazardous waste, the Agency believes that this level of regulation is also reasonable for a household battery collection program.

Subpart 3. Standards for storage of spent or waste household batteries. Household batteries contain electrolytes which often are corrosive. In addition, household batteries which are not fully discharged can produce hydrogen gas if they contact other batteries in a container. If the container is not vented and sufficient hydrogen gas is generated, an explosion may result. Item A requires that spent or waste household batteries be stored in vented, corrosion resistant containers. The Agency believes it is reasonable to require the operator to containerize the electrolyte, should a battery develop a leak, and to use vented containers to store collected batteries to avoid a possible explosion from the production of hydrogen gas.

Item B requires that storage of containers of spent or waste household batteries shall be subject to the requirements of Minn. Rules pt. 7045.0526, subs. 2 to 6 and 9. These requirements address the condition of containers, the compatibility of wastes with containers, the management of containers, the inspection of containers, containment, and closure.

The Agency believes that all of these areas need to be regulated to insure that batteries are stored in an environmentally safe manner. In addition, the Agency feels that proper closure of a facility which has stored spent or waste

household batteries is necessary to correct any contamination problems which may have occurred at the site and to prevent future environmental damage. It is therefore reasonable to require that spent or waste household battery collection programs comply with the requirements of Minn. Rules pt. 7045.0526, subps. 2 to 6 and 9.

Item C specifies that if the storage of spent or waste household batteries meets the criteria of speculative accumulation as defined in Minn. Rules pt. 7045.0020, that storage is also subject to the following requirements: Minn. Rules pts. 7045.0452 to 7045.0456; 7045.0460 to 7045.0470; 7045.0478 to 7045.0534; 7045.0544; 7045.0552 to 7045.0562; 7045.0566 to 7045.0578; 7045.0584 to 7045.0632; and the permitting requirements of chapter 7001 for hazardous waste storage facilities.

These requirements are the same as those specified in Minn. Rules pt. 7045.0685, subp. 2 for spent lead-acid batteries which are speculatively accumulated. Speculative accumulation refers to a business activity where a recyclable material is stored until the market improves. In the past the Agency has encountered serious environmental problems resulting from businesses storing wastes for extended periods of time waiting for a better market. For this reason, such accumulation is carefully regulated. Both household batteries and lead-acid batteries contain metals which may cause soil or water contamination if they become cracked and subsequently leak during storage. When batteries are speculatively accumulated they may be stored for a longer period of time before reclamation, which increases the probability of a leak developing during storage. Therefore, because of the increased risk, it is reasonable to subject spent or waste household batteries, which are speculatively accumulated, to the same requirements as speculatively accumulated lead-acid batteries.

Subpart 4. Standards for operators of facilities that store spent or waste household batteries before reclaiming them. The operators of facilities that store batteries before reclaiming them are subject to regulation under Minn. Rules pts. 7045.0452 to 7045.0456; 7045.0460 to 7045.0470; 7045.0478 to 7045.0534; 7045.0544; 7045.0552 to 7045.0562; 7045.0566 to 7045.0578; 7045.0584 to 7045.0632; and the permitting requirements of chapter 7001 for hazardous waste storage facilities.

These requirements are the same as those specified in part 7045.0685, subp. 3 for operators of facilities that store spent lead-acid batteries before reclaiming them. To reclaim the metals from lead-acid batteries or household batteries, they must be broken open. This processing increases the chance for the metals contained in them to contaminate the environment. Therefore, the Agency feels it is reasonable to subject operators of facilities which store household batteries before reclaiming them to the same requirements as operators of facilities which store lead-acid batteries prior to reclaiming them.

V. SMALL BUSINESS CONSIDERATIONS IN RULEMAKING

Minn. Stat. § 14.115, subd. 2 (1988) requires the Agency, when proposing rules which may affect small businesses, to consider the following methods for reducing the impact on small businesses: a) the establishment of less stringent compliance or reporting requirements for small businesses; b) the establishment of less stringent schedules or deadlines for compliance or reporting requirements for small businesses; c) the consolidation or simplification of compliance or reporting requirements for small businesses; d) the establishment of performance standards for small businesses to replace design or operational standards required in the rule; and e) the exemption of small businesses from any or all requirements of the rule.

The proposed amendments will not have any effect on most small businesses because businesses are prohibited from bringing their spent or waste batteries to household battery collections. The proposed amendments will only regulate batteries generated from households.

The only small businesses that would be affected by the proposed amendments would be those which operate collection programs for household batteries, or that reclaim collected household batteries. However, since the proposed amendments either reduce or maintain the current level of regulation, the Agency does not believe that there will be any adverse economic effect from the proposed amendments. The fact that the regulations reduce certain requirements may be an economic benefit to certain businesses.

VI. 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 which may result therefrom, and shall take or provide for such action as may be reasonable, feasible, and practical under the circumstances.

In proposing the requirements of these amendments, the Agency has given due consideration to available information regarding any economic impacts the proposed amendments would have. The major effect of the proposed amendments will be to present an economic benefit to the public entities which will be sponsoring household battery collection programs. The proposed amendments represent a reduction of the level of regulation that is imposed under the

current level of regulation. By revising the rules to more accurately address the concerns associated with household battery collections, the proposed amendments will reduce the expense associated with the operation of collection programs. The most significant reduction in regulation is the area of transporting the spent or waste household batteries to a reclamation facility.

By eliminating the requirement for collection operators to use a licensed transporter, the proposed rules will reduce the expense associated with transporting the collected batteries by allowing the operators of collection sites to arrange for less expensive options for transporting collected wastes. The Agency believes that it is reasonable to provide an economic incentive in order to promote the environmental benefit of conducting household battery collection.

VII. CONCLUSION

Based on the foregoing, the proposed Minn. Rules pts. 7001.0520, 7045.0020, 7045.0120, and 7045.0686 are both needed and reasonable.

VIII. LIST OF EXHIBITS

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

<u>Agency</u> <u>Ex. No.</u>	<u>Title</u>
1	Minn. Rules pt. 7045.0310.

September 14, 1990
Date

for 
Gerald L. Willet

