



Minnesota Pollution Control Agency

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July 31, 1991

Maryann Hruby, Director
Legislative Commission to
Review Administrative Rules
55 State Office Building
St. Paul, Minnesota 55155

Dear Ms. Hruby:

As required by 1990 amendments to the Administrative Procedures Act, we are forwarding copies of our Statement of Need and Reasonableness (SONAR) for two separate proposed rule and rule amendment packages. These SONARs support rulemakings which govern the following:

8/12/91 Lead Contaminated Residential Sites - Response Action Priorities

- Hazardous Waste Generator Licensing and Very Small Quantity Generator Hazardous Waste Collection Program

If you have any questions please contact me at 612/297-8369.

Sincerely,

A handwritten signature in cursive script that reads "Carol Nankivel".

Carol Nankivel, Supervisor
Rules Unit
Program Development Section
Hazardous Waste Division

CN/JAE:jao

Enclosure

The Legislative Commission to
Review Administrative Rules

7/31 - 2 1991



8/12/91

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of the Proposed Rules
Governing Priorities for Response
Action, Minn. Rules pts. 4760.0500
to 4760.0540.

STATEMENT OF NEED AND
REASONABLENESS

I. INTRODUCTION

The Minnesota Legislature delegated the authority to the Minnesota Pollution Control Agency (hereinafter "Agency") to adopt rules establishing priorities for responding to sites in the state that have been found to be contaminated with lead. Minn. Stat. § 116.53, subd. 2 (1990).

To promulgate the proposed rules, the Agency must conduct its proceedings in accordance with the rulemaking requirements of the Administrative Procedure Act. Minn. Stat. ch. 14 (1990). Under Minn. Stat. ch. 14, the Agency, when engaged in rulemaking, is required to make an affirmative presentation of facts establishing the need for and reasonableness of the proposed rule, hence, the purpose of this document.

This Statement of Need and Reasonableness is composed of nine parts. Part I introduces the nature of the proposed rules and the process used to draft the proposed rules. Part II provides the Agency's statutory authority to adopt the proposed rules. Part III discusses the need for the proposed rules. Part IV discusses the reasonableness of the proposed rules. Part V presents the considerations for reducing the impact on small businesses. Part VI discusses how economic factors have been taken into account. Part VII provides a discussion of the need for a fiscal note. Part VIII provides the conclusion that the proposed rules are both needed and reasonable. Part IX con

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of exhibits relied on by the Agency to support the proposed rules. The exhibits are available for review at the Agency's offices at 520 Lafayette Road, St. Paul, Minnesota, 55155.

II. STATEMENT OF AGENCY'S STATUTORY AUTHORITY

The Agency's statutory authority to adopt the proposed rules is set forth in Minn. Stat. § 116.53, subd. 2 (1990) which provides:

By January 1, 1988, the Agency must adopt rules establishing the priority for response actions. The rules must consider the potential for children's contact with the soil and the existing level of lead in the soil and may consider the relative risk to the public health, the size of the population at risk, and blood lead levels of resident populations.

Under this statute the Agency has the necessary statutory authority to adopt the proposed rules, Minn. Rules pts. 4760.0500 to 4760.0540.

III. STATEMENT OF NEED

Minn. Stat. ch. 14 (1990) requires the Agency to make an affirmative presentation of facts establishing the need for and reasonableness of the rules 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 rules is discussed below.

The need for these rules is established by two facts. One, the Legislature has directed the Agency specifically to prioritize lead contaminated sites for response action. Minn. Stat. § 116.53, subd. 2 (1990). Two, there is not enough public money available at this time to clean up all contaminated sites and some criteria must be established to determine which sites are of the highest priority.

The Legislature in 1985 directed the Agency to identify and develop a preliminary list of sites in the state where significant concentrations of lead in the soil are likely and where the probability exists for children's contact with the soil. Minn. Stat § 116.52, subd. 1 (1990). In 1987, the Agency submitted a report to the State Legislature describing the extent of lead concentration in the soil, the blood lead level of populations at contaminated sites, the size of the populations at risk from exposure to lead in the soil, and an estimate of the cost of response actions required to prevent exposure to soil contaminated by lead. See Exhibit No. 20.

Generally, the Agency found that the highest levels of lead are found in the inner cities in poor neighborhoods consisting of tightly spaced and poorly maintained housing. Furthermore, the highest lead concentrations were found immediately adjacent to the foundations of houses. Id. at 4.

Since it is not possible to abate all lead contaminated sites at the same time, abatement programs must be prioritized to ensure the most efficient use of resources. Soil lead abatement methods are expensive and sometimes difficult to carry out, so a soil lead priority ranking for targeting abatement is necessary to provide practical and cost-effective methods to reduce or eliminate lead exposure in the environment. Further, it is anticipated that there will be a need to utilize public funding to conduct much of the abatement that will be necessary. It is not likely that there will be enough public funding to pay for all the abatement that is necessary as more lead contaminated sites are discovered. Hence, the need for prioritizing abatement efforts is well established.

IV. STATEMENT OF REASONABLENESS

The Agency is, required by Minn. Stat. ch. 14 (1990) to make an affirmative presentation of facts establishing the reasonableness of the proposed rules. 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 rules is discussed below.

A. Reasonableness of the Rules as a Whole

Lead is a naturally occurring useful but toxic metal that has no known biological value. The industrial revolution dramatically increased the use of lead in various industrial processes and products. In the United States the lead industry produces about 1.3 million metric tons per year. For example, lead is used as solder in canned foods, in pipes, dyes, ink, printing, cosmetics, ammunitions, brass and bronze, crystal, silverware, dinnerware, gasoline, batteries, weights and sinkers, casting metals, cables, and in medical devices to shield personnel from x-ray radiation. As a result of industrialization, lead is widespread in the environment and people are exposed to lead in many aspects of daily life. See Exhibits Nos. 3 and 20.

Over the years the concept of risk associated with lead began to emerge. Numerous studies reported that lead is nonbiodegradable and possesses severe toxic properties. See Exhibits Nos. 3, 12, 13, and 16. Today, lead is a persistent cause of public concern. The concern centers on evidence that lead poisoning is the most common and socially devastating environmental disease of young children. Children, particularly those under the age of six, are at the greatest risk because the adverse effects of lead can permanently damage the developing brain. Reports conclude that the most affected groups are children who live in deteriorating buildings and in substandard conditions in urban areas. See Exhibits Nos. 11 and 15.

Although much of the initial concern over lead poisoning was focused on the already existing sources such as gasoline and paint, it is now recognized that lead exposure may embrace a variety of sources and an important one is soil lead. Many studies have examined the association between soil as a source of lead in the environment and a child's blood lead. It is well accepted that children are at the greatest risk of exposure to lead in soil because of the increased likelihood of children coming in direct contact with the soil. Children play outdoors and are likely to ingest soil inadvertently or by pica-mouthing behavior. In addition, lead concentration increases as soil particle size decreases and smaller particles are more easily moved into homes to become lead-rich house dust. Contact with soil and dust on their hands allows children to ingest soil particles. See Exhibits Nos. 4, 5, 8, 12, 16, and 17.

B. Reasonableness of Specific Rules

It is reasonable to identify areas where children are at the greatest risk from lead poisoning from lead in the soil. That is what these rules are about. The following discussion addresses the specific rules proposed by the Agency for establishing priorities for abating soil lead contamination.

1. Minn. Rules pt. 4760.0500

Minn. Rules pt. 4760.0500 establishes the scope of the proposed rules. It is typical and reasonable to provide at the start of a new set of rules a description of what the rules cover. These rules establish procedures for prioritizing lead contaminated sites for abatement.

2. Minn. Rules pt. 4760.0510 Definitions

Minn. Rules pt. 4750.0510 provides definitions for terms found in the body of the proposed rules.

It is typical and reasonable to include definitions for some of the words and terms used in a set of rules. The words and terms defined here are those for which a precise definition is important for implementation of the substantive requirements of the rules. The Agency staff conducted literature research and referred to existing federal and state statutes and rules to compose the definitions of the terms used in the proposed rules. The Agency has attempted to define these words and terms in ways that are consistent with other statutory and regulatory definitions.

Subp. 1. Scope

This subpart provides that the definitions contained in this part apply only to parts 4760.0500 to 4760.0540. It is reasonable to indicate to what rules the definitions apply.

Subp. 2. Child

The Legislature has directed the Agency to consider in this rulemaking the potential for children's contact with lead contaminated soil and the risks to public health. The word "child" or the word "children" is used on several occasions in the rules to determine the appropriate priority for a site. Because of the importance of determining the status of children with respect to a particular site, it is important to define precisely what is meant by the word "child" or the word "children."

The Agency has proposed to define the word "child" as a human being under the age of six. The Agency has chosen the age six as the cut-off point for a child because young children up to six years of age constitute the population at greatest risk from lead exposure. A recent report on lead concentrations in children by the Agency for Toxic Substances and Disease Registry estimated that most children who suffer from high blood lead levels are under six years of age. See Exhibit No. 2. It is well established that at a

given level of lead in the blood, children under the age of six suffer more ill effects from lead than do older children. See Exhibits Nos. 3, 16, and 19.

The main reasons that children are more at risk than adults are (1) children have a higher intake of lead per unit of body weight than adults due to their higher metabolism, (2) children absorb lead from the gastrointestinal tract to a far greater degree than adults, (3) children exhibit mouthing behavior that can result in ingestion of lead from dust and soil, and (4) children are more sensitive to the toxic effects of lead, particularly in regard to neuro-behavioral effects. See Exhibits Nos. 2, 8, and 13.

A "child" is defined as a human being rather than as a person. The reason the words human being are used is because, as is explained later, the word "person" has a broad meaning and includes corporations and governmental bodies. A child can only be a human being.

Subp. 3. Distributing authority

Subpart 3 defines "distributing authority" as a governmental agency or entity, such as a local board of health that distributes funds for the abatement of soil lead contamination. It is necessary to define "distributing authority" because these are the governmental agencies that will provide public funds for the abatement of contaminated sites. The proposed rules do not specify which agencies will have the authority to spend public funds for abatement. The "distributing authority" could be a city council, a county board, a local board of health, or perhaps other governmental bodies. The definition is broad enough to include whatever local body will be making the decisions regarding public funding of abatement. It is reasonable to adopt this broad definition.

Subp. 4. Elevated blood lead level

The definition of "elevated blood lead level" is identical to the statutory definition in Minn. Stat. § 116.51, subd. 4 (1990). A similar definition is also found in Minn. Stat. § 144.871, subd. 6 (1990), the statute authorizing the Agency to adopt a lead standard for soil. It is reasonable to adopt the definition set by the Legislature.

A 25 micrograms per deciliter level is also consistent with the current recommendation of the Center for Disease Control. See Exhibit Nos. 2, 14, and 21.

The definition of "elevated blood lead level" is important in these rules for determining whether a child has an elevated blood lead level. A separate level has been proposed for pregnant women and that level is 10 micrograms per deciliter. That figure also comes from the statute. Minn. Stat. § 144.874, subd. 1(a) (1) (1990). The Agency believes that it is reasonable to rely on the same level of lead in the blood of a pregnant woman for setting priorities for abatement action as the Legislature has established to trigger the need for an assessment of her residence. Minn. Stat. § 144.874, subd. 1 (1990).

Subp. 5. Person

The Agency is proposing to incorporate the statutory definition of "person," which will make these rules consistent with the pollution control statutes and other rules adopted by the Agency. See Minn. Stat. § 116.06, subd. 8 (1990) for the definition and Minn. Rules pt. 7045.0020, subp. 66 for an example of where the same definition is used in other Agency rules.

Person is defined broadly because more than individual human beings can be involved in performing the tasks these rules establish. For example, under Minn. Rules pt. 4760.0540, subp. 2, 3, and 4, a corporation might be the

"person" who undertakes abatement. It is reasonable to adopt a definition of "person" that includes more than human beings.

Subp. 6. Playground

This subpart defines "playground" as an open area, including vacant lots, used for outdoor games, recreation, and amusement that may contain swings, seesaws, slides, or other means for children's recreation and play. It is necessary to define "playground" because playgrounds will be prioritized for response action in many situations. The Agency is proposing to adopt the identical definition to the one adopted by the Agency in its soil lead standard rules. Minn. Rules pt. 4760.0015, subp. 8. It is reasonable to adopt the same definition to provide consistency between where the standard applies and what area is to be cleaned up.

Including playgrounds in the proposed rules for response action is important because playgrounds can be the source of soil lead exposure to children. Young children spend time playing on playgrounds. Much of this time may be unsupervised. Children with high blood lead may reasonably be expected to pick up some lead from playground areas.

The definition is broad and includes areas such as vacant lots that, although are not a playground as many people conceive of a playground, with swing sets and jungle gyms, are often the places where children will play. It is reasonable to adopt a broad definition of the word "playground" to help ensure that the places where children are being exposed to lead are the places that have a high priority for soil lead abatement activities.

Subp. 7. Residence

"Residence" is defined as a house, duplex, apartment, or other building or structure used, or intended for use as human habitation and the real property upon which the building or structure is located. The Agency believes that

children and pregnant women who have elevated blood lead levels are reasonably expected to pick up that lead at home. The first place to look for sources of lead when a child or pregnant woman is discovered with elevated blood lead is at the place where that child or woman lives. Therefore, it is necessary to define "residence" in these rules.

The Agency is proposing to define "residence" as both the building and the property where people live. Both of these concepts are appropriate to include in the definition, the building because the house or the apartment is commonly thought of as the home, and the property because it is the soil that will be abated when a response action becomes necessary.

Subp. 8. Response action

These proposed rules set priorities for response actions. Therefore, it is appropriate to define the term "response action." The Agency is proposing to adopt the statutory definition of "response action" in Minn. Stat. § 116.51, subd. 5 (1990). It is reasonable to incorporate the statutory definition to ensure consistent interpretation and application of the term.

This definition will ensure that local governmental bodies do not begin any action at a site to clean up contaminated soil without first establishing its abatement priority. Because "response action" is defined as action to limit exposure to lead contaminated soil sites, a local governmental body will be required to develop its priorities before undertaking any action to clean up a site. This will allow local governmental bodies to spend limited public funds on the highest priority sites.

The Agency has adopted a lead standard and rules for abatement of contaminated sites. Minn. Rules pts. 4760.0010 to 4760.0050. Several times in these proposed rules the Agency uses the word "abatement." It should be pointed out that "abatement" is a "response action." The Agency has decided to use both

terms because "response action" is the term the Legislature used in authorizing the Agency to adopt these rules and "abatement" is what the Legislature authorized the Agency to establish by rule in Minn. Stat. § 144.874 (1990). The Agency does not believe that the use of both terms will prove confusing, particularly when abatement is provided for in detail in Minn. Rules pt. 4760.0030.

Subp. 9. Site

This subpart defines "site" as an area of land that has been sampled for soil lead concentration. A site may be as small as a residence or as large as a census tract.

It is important to define the word "site" because under the rules as proposed, the priority setting for response actions will be done according to sites. The Agency has made it clear in the definition that a "site" may be an individual residence or an entire census tract. It is reasonable to define "site" in these terms because response actions are likely to be taken in both ways: cleanup of an individual property and cleanup of all soils within a census tract.

Defining "site" to be an individual residence needs little explanation. Obviously, if a child or a pregnant woman has an elevated blood lead level and the soil at that child's or woman's house is contaminated, that will be a site requiring response action. However, it is also possible that a local governmental body may determine that all properties in an entire census tract need to be cleaned up. It may be too expensive to go out and sample every property and test for lead concentration; yet the governmental body may well determine that, based on the sampling within the census tract that has been

done, it is likely that all properties within the census tract are as contaminated as the ones that were sampled. It is reasonable then to provide that an entire census tract may be a "site" that is placed on a priority list.

3. Minn. Rules pt. 4760.0520 Priority Ranking System

Minn. Rules pt. 4760.0520 is the crux of these rules -- it is the language that establishes the system for prioritizing lead-contaminated sites for cleanup.

The Legislature made it clear in promulgating Minn. Stat. § 116.53, which directs the Agency to establish the priority for response actions, that considerations should be given to children's potential contact with the soil, the existing level of lead in the soil, the relative risk to the public health, the size of the population at risk, and the blood lead levels of resident populations.

To meet the statutory requirements, the Agency establishes in the proposed rules a priority ranking system that will provide a rational sequence to abate soil lead. In so doing, a site which presents the greatest risk to children is given the highest priority followed by those sites that have the potential to poison children in the future. Notably, in creating priority ranking, the Agency included those tracts that are found to be contaminated with soil lead even though they are based on limited soil samples. This strategy is reasonable since it will address sites identified with the potential to poison children and thus is consistent with the statute.

Subp. 1. Priority One

Subpart 1 establishes the first priority for response actions. This subpart states that a site is priority one site if it contains more than 300 ppm soil lead and is a residence of a child with an elevated blood lead level or of

a pregnant woman with a blood lead level of ten micrograms per deciliter or more.

The highest priority is given to those sites where the soil is contaminated and a child or pregnant woman who lives at the site has developed an elevated blood lead level. These are the children and women who are at the greatest risk because the level of lead in their blood is already threatening the health of the child, the woman, or the unborn fetus. Prompt action is necessary to lower the blood lead level of these people. Abatement of the soil may be one way to do that.

The 300 ppm level is the standard that was established by the Agency for soil lead. Minn. Rules pt. 4760.0020. It is reasonable to use the standard as the measure of contamination at a site.

The Agency for Toxic Substances and Disease Registry has recommended that the highest priority for lead cleanup should be given to those situations where a child under the age of six has been poisoned with lead. See Exhibit Nos. 2 and 21. That is precisely what the Agency is proposing to do under the proposed rules.

Subp. 2. Priority Two

Subpart 2 establishes the second priority for response actions. This subpart provides that a site is a priority two site if it contains more than 300 ppm soil lead, is a residence or a playground and is frequented by a child with an elevated blood lead level.

Priority two sites are similar to priority one sites except that priority two sites are not residences where the children live but instead are the residences and playgrounds where the children visit and play. These children are being exposed to lead from some source and, if it is not from their own homes, it could likely be from the homes of neighbors, friends and relatives, or

perhaps the home of the day care provider where the soil is contaminated, or at the playground where the child plays. Abating soil at these residences and playgrounds will also provide some primary protection because there are likely other children, whose blood lead levels have not risen yet, who also frequent these homes and playgrounds. Abating the soil will help avoid lead poisoning of additional children.

Children are the ones most at risk from lead sources in the environment. If children have elevated blood lead levels, they are getting it from somewhere in their environment. Focusing on the homes and playgrounds and other places that these children frequent will not only help those children but will help prevent lead poisoning of other children who might live in those residences in the future.

Subp. 3. Priority Three

The third priority for response actions are entire census tracts. The reason for including entire census tracts within a priority classification is because data are more readily available regarding lead levels throughout the census tract than for individual residences and playgrounds. As more individual residences and playgrounds are sampled, the more priority one and priority two sites can be identified. However, lacking that data, it is reasonable to identify entire census tracts that are known to provide some risk to the public from exposure to lead.

It is also reasonable to include entire census tracts because the lead that is contaminating residences and playgrounds within a census tract often does not come from some localized, identifiable sources but instead comes from an area-wide source like peeling paint or gasoline emissions from automobile traffic. If a few samples within a census tract show contamination, it is likely that other residences within the census tract are contaminated as well.

A census tract is an area that has been defined by the U.S. Census Bureau in the 1980 United States Census. A census tract may be composed of many residences. In the inner cities of St. Paul and Minneapolis, where most of the census tracts with high soil lead levels are located, it makes sense to conclude that if sampling shows lead contamination at a few sites, residences throughout the entire census tract may be contaminated because the same source of lead for the sampled residences also contaminated the nonsampled residences.

The Agency has identified two kinds of census tracts that need to be included in the priority three category. These two categories are (1) those census tracts where children and pregnant women with high blood lead levels have been found and (2) those census tracts where high soil lead levels have been found to exist. There is actually a third category listed in the rule, but these are simply those census tracts that the Agency already knows fit into category (2) -- they have already been sampled and have been found to have high soil lead levels.

It is reasonable to require that all census tracts that either have pregnant women or children with elevated blood lead levels or that have contaminated soil be placed on a list for abatement priority. An entire census tract should not take priority over individual residences or playgrounds that fit into priority one or priority two categories, but these census tracts certainly are areas that are a threat to public health from exposure to lead in the environment.

Therefore, the proposed rule prioritizes among the census tracts that fit the applicable criteria for inclusion on the abatement list. One of the difficulties in prioritizing census tracts is that the tract is large and the sampling results are few. For example, some of the census tracts listed in Subp. 3, item C have had only three soil samples taken for the entire census

tract. The Agency is reluctant to give a high priority to an entire census tract on the basis of three data points, yet, on the other hand, the Agency does not want to ignore the fact that high lead has been found at least at one place in the tract.

Subp. 4. Prioritizing census tracts

The Agency is proposing to create four categories of priority within a priority three census tract. Which category a census tract fits into depends on whether children or pregnant women with elevated blood lead levels have been found, and also on how much data the Agency has to determine whether soil throughout the census tract is contaminated.

Priorities A and B for census tracts are those census tracts with residences of children or pregnant women with elevated blood lead levels. Data on blood lead levels, when it is available, is quite reliable. Usually, if the results of a blood sample analysis indicate high lead, the results can be relied upon to conclude that there is reason for concern about these children and pregnant women.

On the other hand, data about the extent of soil contamination within the census tract are often sketchy. Therefore, the Agency has created a mechanism for recognizing the fact that data are often limited regarding soil lead levels in the census tract.

Minn. Stat. § 116.52 required that the Agency submit a report to the Legislature that among other things, described "the extent of lead contamination in the soil." In order to determine the extent of soil lead contamination in Minnesota, the Agency conducted an extensive soil sampling and testing program. The results of this program were published in the Agency's Soil Lead Report to the Minnesota State Legislature. See Exhibit 20.

To obtain data on soil lead contamination, Agency staff sampled soils from various areas in 27 counties and five cities in Minnesota - St. Paul, Minneapolis, Duluth, Rochester and St. Cloud. A total of 2,485 soil samples were collected throughout the state. The soil lead data provided in subp. 3, item C is derived from this statewide sampling program. The census tracts identified in the proposed rules are those tracts which, based on the sampling data, have been determined to have levels of soil lead which exceed the state standard of 300 ppm.

A 95 percent confidence interval has been calculated for the mean of the samples from each census tract. Where there are few samples and lead concentrations vary widely, the sampling error would be high so that the range of estimate for the population mean would be wide. This range of estimate or confidence interval on the sample mean defines the lower and the upper limit on the population mean. For example, for census tract 320 in St. Paul, only three samples were taken. The sample mean is 31.690 ppm, but the small number of samples and high variability in sample readings produce a confidence interval ranging from 0.124 ppm to 8091.85 ppm. Hence, the sample mean is not efficient in estimating the population mean, indicating a wide range for the mean lead concentration in the census tract. The Agency is reluctant to conclude that the entire census tract is contaminated based on these three samples, but neither does the Agency want to ignore the results and not focus on a need for abatement within the census tract.

The proposed rules provide that if all three numbers - the lower confidence level number, the mean, and the upper confidence level number - all exceed 300 ppm, those census tracts will be given a higher priority than those census tracts for which only the upper confidence level number exceeds 300 ppm. In the latter case, there is a probability that the population mean could exceed

300 ppm, albeit a lower probability when compared to the 100 percent probability in the first case. Once a census tract qualifies for inclusion on an abatement priority list, the entire census tract could be abated if that is the decision of the proper local governmental body and if no higher priority sites exist.

The Agency has prioritized the census tracts listed in subp. 3, item C according to the available data. The results of that prioritization are shown in Minn. Rules pt. 4760.0520, subp. 3, item C.

In order to prioritize the census tracts, the Agency developed a reasonable procedure for effective application of the available soil lead data. The Agency based its prioritization of census tracts on the confidence limits calculated for the geometric mean of the samples. The geometric mean was used instead of the arithmetic mean in order to compensate for extremely high values of several samples. This changed the skew of the distribution with a long right hand tail (due to extremely high values) into a symmetric bell-shaped curve. From this symmetric curve, the lower and upper confidence limits on the sample mean were determined. The population mean of the census tract will be within these limits, and the lower confidence level value defines the expected minimum value of the population mean. For census tracts with lower confidence level values exceeding 300 ppm, the Agency ranked each tract according to its lead concentration value at this lower confidence level. High lead concentration values at the lower confidence level received a high ranking. The population mean of the census tract will equal or exceed this lead concentration value 95 percent of the time.

If the census tract shows a lower confidence level value below 300 ppm but an upper confidence level value above 300 ppm, there could be a fair chance that the population mean will exceed 300 ppm. In this case, the Agency computed the probability that the population mean will exceed 300 ppm, based on the

sample mean, standard error, sample size and distribution. High probabilities of exceeding 300 ppm, received high ranking. In case of equal probabilities, the Agency ranked the census tracts further according to the mean lead concentration of the samples. High mean lead concentration caused high ranking for the census tract.

The Agency believes that it is entirely reasonable to focus on all census tracts that have any data showing high soil contamination, regardless of the number of samples. It would not be reasonable to ignore these census tracts just because the data were inconclusive. These data may not warrant a complete cleanup of the entire census tract but they do warrant keeping the census tract on the priority list when considering lead abatement response actions. There is always the opportunity to gather additional soil data, and provisions for factoring in this additional data are discussed below.

Subp. 5. Individual residences and playgrounds within a census tract

One way that additional data are taken into account in prioritizing sites is to separate out from the census tract those residence and playgrounds that meet the qualifications for a priority one or priority two site. Any time data are available to show a child or a pregnant woman with elevated blood lead levels and contaminated soil at the residence or playground frequented by that child or woman, that site will become either a priority one or a priority two site. That residence or playground will not be classified with the entire census tract as a priority three site. It is reasonable to address these individual residences and playgrounds separately because, since money for abatement will be limited, these highest priority sites must be abated before all others. It makes little sense to abate one entire census tract, including residences where no children presently live or visit, while an individual residence of a child with an elevated blood lead level goes unabated. Subpart 5

will ensure that the residences and playgrounds of children and pregnant women with elevated blood lead levels continue to get the highest priority.

Subp. 6. Ranking

This subpart merely provides that a site, whether it is a residence or a playground or a census tract, be given the highest priority to which it is entitled. Therefore, if new data becomes available to change the lower and upper confidence levels to numbers above 300 ppm, when the previous lower confidence level number was below 300 ppm, that census tract has to be re-ranked from a priority 3D to a 3C. If a child with an elevated blood lead level is later discovered to live in that census tract, that census tract must be raised to a 3A priority. Also, if data on the specific residence of the child with elevated blood lead shows 300 ppm, that child's residence must be given a priority one ranking. It is reasonable to provide a mechanism in the rules so that a site can be given the highest priority ranking to which it is entitled to ensure that those sites providing the greatest threat to public health will be abated as soon as possible.

4. Minn. Rules pt. 4760.0530 Abatement Priority List

Subp. 1. Distributing authority

This provision places an obligation on the local unit of government that is planning to utilize public funds to abate soil contamination to first prepare an abatement priority list. In order to carry out the legislative mandate to prioritize lead contaminated sites, this abatement priority list must be prepared.

The local unit of government must follow the criteria established in Minn. Rules pt. 4760.0520 in preparing its abatement priority list. The list will include all priority one sites, all priority two sites, and all applicable census tracts broken down into 3A, 3B, 3C, and 3D priorities.

The rule does not specify any particular public comment procedures that the local unit of government must follow. The Agency believes that the procedures will vary from community to community and each community can best determine how to solicit public comment on the list. It is reasonable to rely on local procedures for obtaining public input. The Agency does anticipate, however, that the public will have an opportunity to participate in the development of the abatement priority list.

The only timing requirement that this rule imposes is that the list must be prepared before any public funds are spent for lead abatement. The Agency decided not to specify a certain time period during which the list must be adopted. Instead, the Agency expects that those communities with money for abatement will proceed expeditiously to adopt its abatement priority list.

Subp. 2. Amendment of list

This subpart does two things: (1) it allows the local unit of government to amend the list whenever that is appropriate, and (2) it requires the local unit of government to amend the list when new sites are identified. Both of these procedures are reasonable because the increasing attention directed toward soil lead exposure among children will likely result in new data being generated frequently. Local units of government should keep their abatement lists current.

On the other hand, previously identified contaminated soil lead sites may have been put through extensive soil lead abatement and thus can be removed from the abatement priority list. Recognizing the existence of these possibilities, the Agency provides in the proposed rules that list be amended whenever it is appropriate.

Subp. 3. Additional Sampling

This subpart provides that a distributing authority may take additional soil samples before prioritizing a resident or a playground or a census tract for abatement. A local unit of government may be reluctant to list an entire census tract on its priority list based only on three samples. This rule recognizes that it is perfectly legitimate for the local governmental body to go out and take additional samples before prioritizing the census tract.

This rule also provides that all results that are available that are reliable should be considered in prioritizing a site. This is simply a recognition that the local governmental body should not ignore sample results, nor should it consider results that for one reason or another are unreliable.

4. Minn. Rules pt. 4760.0540. Response Action

This subpart is divided into four subparts. Subpart 1 establishes the use of public funds; subpart 2 provides for conditions for additional abatement; subpart 3 addresses when abatement is not required, and subpart 4 directs a person who undertakes abatement to an applicable rule for abatement procedures.

Subp. 1. Use of Public Funds

As presented above subpart 1 establishes the use of public funds for abating soil lead. Society would greatly benefit from the lead poisoning prevention programs, be it through increased awareness or abatement or a combination of efforts by the public and private sectors. Since this is a worthwhile public health activity, the focus of the proposed rules is on the use of public funds. However, in order to provide a cost-effective process, the proposed rules require that a distributing authority must prepare an abatement priority list before public funds can be made available for soil lead abatement.

The Agency believes that requiring the distributing authority to prepare an abatement priority list before authorizing the use of public funds is reasonable because it will result in targeting sites which are most likely to poison children, and thus markedly increase the efficiency and benefits of any abatement program.

Subp. 2. Additional Abatement

Subpart 2 provides for additional abatement that is not within the requirements of the proposed rules. This provision gives any person who pays for the abatement without the use of public funds some discretion to reduce environmental lead contamination. It is reasonable to provide such provision in the proposed rules because there are persons who would like to take actions to further reduce lead exposure from various sources and it is essential that they not be discouraged from acting to eliminate lead in our environment.

The proposed rules do not impose the priority ranking system on soil abatement projects that are publicly funded but which are not strictly limited to soil lead abatement. The Agency believes that public funding may some time become available for local units of government to conduct property renovations to abate lead in residences, but that public funding may only rarely be available for an abatement program that is limited to soil lead abatement. In such cases, where the abatement program is focused toward the cleanup of the structure, the proposed rules do not prohibit the distributing authority from also conducting soil lead abatement at those sites, even though those sites may not be highly ranked on the soil lead abatement priority list. This is a reasonable exception to the priority ranking system. If the residence is being cleaned up because the structure has been identified as a health hazard, it is reasonable to complete the project by also abating lead in the surrounding soil.

The Agency does not intend that funds for soil lead abatement at such projects be withheld simply because the site does not rank highly enough on the soil abatement priority ranking system.

The Agency believes that in many cases the residences that will receive public funding for lead abatement will also be priority one sites because the renovation of the residence will be prompted by a case of lead poisoning and there will be no conflict. However, if that is not the case, if for example the property is not occupied and there are no reports of elevated blood lead levels associated with the site, the Agency does not intend that the rules be an obstacle to the complete abatement of a lead contaminated residence.

Subp. 3. Abatement Not Required

Subpart 3 establishes two circumstances when the proposed rules are not applicable to abatement measures. The first circumstance is regarding the use of private funds. As discussed previously, the proposed rules are only applicable to the ranking of sites where soil lead will be abated with the use of public funding. Clearly if a private entity is going to conduct lead abatement activities, that entity will have its own priorities for the use of its funds and it is not reasonable to apply the same priority ranking system to their activities as will be applicable to a public priority ranking system.

Nothing in the proposed rules prevent a person from using private funds to address their own priorities. A landlord who owns several properties may choose to abate the soil lead at those properties in a particular sequence even though there are no cases of lead poisoning or even if the soil lead levels at those properties does not exceed 300 ppm. Although the MPCA encourages privately funded abatement measures, the proposed rules neither require such abatement measures nor do they prohibit them. However, it is important to note that although the proposed priority ranking rules are not applicable, the owner

of property that exceeds the state soil lead standard of 300 ppm may be required to abate that soil under the requirements of Minn. Rules pts. 4760.0010 to 4760.0050.

The second exception to the requirements of the proposed rules is for publicly funded abatement of sites that do not exceed the state soil lead standard of 300 ppm. The proposed rules specify that they should not be construed to require that abatement be conducted on sites with soils that do not exceed 300 ppm of lead. An entire census tract may be classified as a priority three site and within that census tract there may be areas where the soil lead does not exceed 300 ppm. Although those sample locations which have been found to contain less than 300 ppm lead have been considered in the statistical development of the list of abatement priorities for entire census tracts, the Agency recognizes that those specific locations do not exceed the state soil lead standard.

When a distributing authority has completed its list of priorities and is actually conducting abatement of soils within an entire census tract, the proposed rules provide for the distributing authority to make decisions regarding the best use of funds and do not require abatement activities at those locations within the tract that can be shown to have less than 300 ppm of lead in the soil. The Agency recognizes that public funding will be limited and does not require that public money be spent on abatement of soils that do not exceed the 300 ppm standard. However, neither do the rules prohibit the use of public funds to abate soils that do not exceed the standard if those soils are within a census tract which has a high priority for abatement. The Agency recognizes that there may be circumstances when it is more cost effective and protective of public health to address all sites in an area and the distributing authority

will want to conduct soil abatement of an entire census tract. In this circumstance it is reasonable for the Agency to allow some discretion in the application of the abatement requirements.

Subp. 4. Abatement Procedures

Subpart 4 requires that any person who undertakes abatement of a site contaminated with soil lead follow the abatement procedures established under Chapter 4760. The Agency recognizes that an effective soil lead abatement procedure is an essential component of a strategy to eliminate childhood lead poisoning. Guided by this view, the Agency believes that it is reasonable to require any person who undertakes abatement to follow the abatement procedures provided under Chapter 4760 because it is a well-designed process and has all the merits of an effective abatement procedure for soil lead.

V. SMALL BUSINESS CONSIDERATION IN RULEMAKING

Minn. Stat. § 14.115, subd. 2 (1990), requires the Agency when proposing rules which may affect small businesses to consider the following factors 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;
- (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 rules.

There is nothing in the proposed rules that will impose any obligation on small businesses. The proposed rules only establish priorities for soil lead response actions which will be conducted with public funds. A small business which is identified under these rules as a priority site, such as a rental property owner or day care center, will not be required to conduct soil lead abatement activities as a result of these proposed rules. These rules will only ensure that that contaminated property is properly identified for consideration when and if public funds become available for soil lead abatement activities. Other rules, however, such as part 4760.0040, may require a small business to abate a contaminated residence, but these rules do not mandate any activities at a small business owner's expense.

The proposed rules could be considered to have a limited positive effect on certain small businesses. At this time the owner of a rental property which has soil lead contamination can be issued an order by the local board of health to have the property cleaned up to eliminate any risk to human health. Although there are no existing programs for the distribution of public funds for soil lead abatement, such programs may be developed in the future. If public funds become available for such cleanup measures, the owner of contaminated property may benefit by having the property ranked as a high priority for receiving funds for abatement measures or may benefit from community wide soil abatement activities.

VI. CONSIDERATION OF ECONOMIC FACTORS

In exercising powers the Agency is required by Minn. Stat. § 116.07, subd. 6 (1990) to give due consideration to economic factors. The statute provides:

In exercising all its powers the Minnesota 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 rules governing priorities for response actions, the Agency has given due consideration to available information as to any economic impacts the proposed rules would have with regard to the above statutory provision.

The Agency is mandated to adopt rules to establish priority ranking for sites contaminated with soil lead. However, the Agency is not required, nor has the Agency been granted any authority, to require the expenditure of funds for soil lead abatement activities at the identified priority sites. The priority ranking system proposed in this rulemaking will only be applicable to the distribution of public funding that has been made available for soil lead abatement. There will be no adverse economic impact as a result of the proposed rules because if funding is not available, the rules do not require any actions to be taken or any costs incurred.

As is true for many health-related choices, a balance must be struck between the efficiency of the methods and the costs incurred. Any abatement activity must be conducted with appropriate protection of public health and environment and must be within a realistic financial budget. Although the

proposed rules provide for a rational sequence in which to conduct abatement, the approach is to safely and cost-effectively reduce soil lead exposure and to protect public health. Under the proposed rules, the benefits to society are markedly increased in relation to economic impacts on funding sources.

VII. FISCAL NOTE

Minn. Stat. § 14.11, subd. 1 (1990) provides that if the adoption of a new rule by an Agency will require the expenditure of more than \$100,000 by local governmental bodies, in either of the first two years the rule is in effect, the Agency must include with its notice of proposed rulemaking an estimate of the total cost to local public bodies for the first two years. The Agency has determined that these proposed rules will not impose on local public bodies costs in excess of \$100,000 in either of the first two years the rules are in effect.

Minn. Stat. § 14.131 provides that an Agency must prepare a fiscal note before it publishes a rulemaking notice if required by Minn. Stat. § 3.982. That section of the statute requires a fiscal note when new legislative action would force a local agency or school district to incur costs, if the local agency or school district could suffer civil liability, criminal penalty and substantial economic sanction such as loss of funding, or severe administrative sanctions such as closure of a facility or program if the local agency or school district failed to comply with the new law.

In the Agency's view, a fiscal note is not required for this rulemaking because no obligations are being imposed on local agencies and school districts by the proposed rules. The proposed rules establish priorities for response action before abatement is undertaken. There is no civil liability, criminal penalty, substantial economic sanction or severe administrative sanction that could fall upon a local agency or school district.

A fiscal note is not required because nothing is being imposed on local agencies and school districts. It is only if public money is to be expended do any obligations result under these rules. At the time the legislature considers appropriating public funding for lead abatement, a fiscal note will be appropriate. At that time estimates of the cost on local agencies to prepare an abatement priority list and the possibility of sanctions if a local agency should expend the public funds without following the priority criteria of these rules can be addressed.

It is possible that at some point a local agency through ownership of a residence or a playground, may have to abate contaminated soil. However, nothing in these proposed rules mandates such an obligation. If public property is identified as a priority site for soil lead abatement, the proposed rules do not mandate that public funds be expended for that site, the proposed rules only mandate that if public funds are to be expended, they must be expended on sites in order of priority.

VIII. CONCLUSION

Based on the foregoing, the proposed Minn. Rules pts. 4760.0500 to 4760.0540 are both needed and reasonable.

IX. EXHIBITS

1. Minn. Stat. § 116.53, subd. 2 (1990).
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19. Putnam, R. D. "Lead in Soil: The Unanswered Questions". In Lead in Soil: Issues and Guidelines. Edited by B. Davies and B. Wixson, North Carolina: 1988.
20. Soil Lead Report to the Minnesota State Legislature: A Statement by the Minnesota Pollution Control Agency and the Minnesota Department of Health, June 1987.
21. Strategic Plan for the Elimination of Childhood Lead Poisoning. A Report by the Centers for Disease Control: U.S. Department of Health and Human Services. Feb. 1991.
22. Trippler, D., M. Schmitt, and G. V. Lund "Soil Lead in Minnesota". In Lead in Soil: Issues and Guidelines. Edited by B. Davies and B. Wixson, North Carolina: 1988.
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7-12-91

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