

STATE OF MINNESOTA  
OFFICE OF ADMINISTRATIVE HEARINGS  
FOR THE DEPARTMENT OF HEALTH

In the Matter of the Proposed  
Adoption of Rules of the Department  
JUDGE  
of Health Governing Lead Abatement  
and Standards for Lead in Paint,  
Dust and Drinking Water,  
Minn. Rules 4750.0100 to 4750.0800

REPORT OF THE  
ADMINISTRATIVE-LAW

The above-entitled matter came on for hearing before Administrative Law Judge Steve M. Mihalchick on December 27, 1990, at 9:00 a.m. in Room 500 South, State Office Building, St. Paul, Minnesota.

Douglas Benson, Lead Program Coordinator, M. Frederick Mitchell, Section Chief, Community and Environmental Services, and Jane A. Nelson, Rules Coordinator, appeared for the Department and testified in support of the proposed rules. Paul Zerby, Special Assistant Attorney General, appeared on behalf of the Department.

Approximately fifteen persons attended the hearing, eight of whom signed the hearing register. The hearing continued until all interested persons had had an opportunity to be heard concerning the adoption of the proposed rules.

This Report must be available for review to all affected individuals upon request for at least five working days before the Commissioner of Health takes any further action on the rules. The Commissioner may then adopt final rules or modify or withdraw any of the proposed rules. If the Commissioner makes changes in the rules other than those recommended in this report, the rules, along with the complete hearing record, must be submitted to the Chief Administrative Law Judge for a review of the changes prior to final adoption. Upon adoption of the final rules, the Commissioner must submit them to the Revisor of Statutes for a review of the form of the rules. The Commissioner

must also give notice to all persons who requested to be informed when the rules were adopted and filed with the Secretary of State.

Based upon the record herein, the Administrative Law Judge makes the following:

#### FINDINGS OF FACT

##### Procedural Requirements

1. On November 7, 1990, the Department filed the following documents with the Chief Administrative Law Judge:

(a) A copy of the proposed rules approved for publication by the Revisor of Statutes.

(b) The Order for Hearing.

(c) The Notice of Hearing proposed to be issued.

(d) The Statement of Need and Reasonableness.

(e) Copies of materials cited in the Statement of Need and Reasonableness.

2. On November 15, 1990, the Department mailed the Notice of Hearing to all persons and associations who had registered their names with the Department of Health for the purpose of receiving such notice. The Department also mailed the Notice to persons and associations on an additional mailing list maintained by the Department and to all members of the Minnesota House and Senate.

3. On November 19, 1990, the Notice of Hearing and a copy of the proposed rules were published at 15 State Register 1216-1225.

4. The Notice of Hearing published in the State Register and mailed by the Department was a "dual notice." The first part of the Notice gave notice that the Department intended to adopt the rules without a public hearing under the provisions of Minn. Stat. §§ 14.22 to 14.28, but also provided that if 25 or more persons requested a hearing within thirty days, a public hearing would be held. The second part of the Notice gave notice of a hearing to be held December 27, 1990, and stated that the hearing would be canceled if fewer than twenty-five persons requested a hearing in response to the first part of the Notice. The technique of using a "dual notice" provides a mechanism for agencies to adopt rules without unnecessarily delaying the process if twenty-five people request a hearing, while at the same time affording all required notice to interested persons.

5. The first part of the Notice stated that the 30 day period to submit comments or requests for a hearing would expire on December 19, 1990. A later provision in the Notice mistakenly stated that a public hearing would be held if 25 or more persons submitted requests for a hearing by November 21, 1990.

The Department notified the Administrative Law Judge of this typographical error on November 26, 1990. The Administrative Law Judge advised the Department that if a public hearing were required, he would not consider the error to be a defect in the Notice of Hearing, particularly if the Department published a correction in the State Register and mailed it to persons on the Department mailing list.

6. On November 29, 1990, the Department mailed a correction of the notice to all persons on its mailing list and, on December 3, 1990, published the correction at 15 State Register 1313.

7. On December 17, 1990, the Department notified the Administrative Law Judge that 34 persons had requested the public hearing and that it would therefore be necessary to proceed with the hearing. That request was from Robert Orth, Executive Director of the Metropolitan Inter-County Association, and contained his and thirty-three other signatures. The Administrative Law Judge again advised the Department that he considered the notice adequate, which was confirmed in a letter which stated as follows:

This is to confirm our telephone conversation of December 17, 1990, in which you informed me that the hearing would be held because more than twenty-five persons had requested a hearing.

During that conversation I informed you that it was my opinion that the Notice of Hearing was adequate and proper despite the fact that the date of November 21, 1990, appears on page 3 of the notice instead of the correct date of December 19, 1990. I reached that conclusion because the date on page 3 is in the portion of the notice dealing with the Department's intent to adopt the rules without a hearing unless twenty-five or more persons request one. Now that a sufficient number of persons have requested a hearing, the operative portion of the notice is that part starting on page 5 that sets a hearing subject to cancellation if fewer than twenty-five persons request a hearing. There are no errors in this operative portion of the notice. Moreover, the portion on page 3 is informational only. The actual deadline for submitting comments is given on page 1 as December 19, 1990, and the statement on page 3 is only a reference to the fact that a hearing would be held if twenty-five or more persons request a hearing by the cut-off date. No person can genuinely claim to be prejudiced by the typographical error on page 3. Moreover, I understand that an errata correcting the error was published in the State Register on December 3, 1990, and that you sent the errata to all persons on the mailing lists.

8. At the hearing, Patrick L. Reagan of the Minnesota Lead Coalition objected to the error in the notice and requested that the hearing be continued so that a correct notice could be given. That motion was denied for the reasons given above. The only persons who would have been affected by the error would be those persons who wanted to demand a public hearing but did not. Since the hearing was being held, their interests were protected.

9. On December 17, 1990, the Department received a pack of twenty-five form letters requesting a public hearing on all the proposed rules. This group was composed of Anoka County residents, employees and public officials. Anoka County later submitted written comments on the rules. On December 19, 1990, the Department received a group of fourteen form letters requesting a public hearing and raising concerns about deteriorating paint and its cleanup. This group of requests was from Lead Free Kids, Inc., which later

submitted extensive written comments.

10. On December 20, 1990, the Department mailed a notice that the hearing would be held to all persons who had requested a hearing or submitted written comments as of December 1990, to all persons who had registered with the Department as abatement contractors and to all persons on the Department's additional mailing list for the proposed rules.

11. On December 3, 1990, the Department filed the following documents with the Administrative Law Judge:

- (a) The Notice of Hearing as mailed.
- (b) The Department's certification that the mailing list was accurate and complete.
- (c) The Affidavit of Mailing the Notice to all persons on the Department of Public Safety's mailing list and to all persons on the Department's discretionary list together with the mailing list and the list of persons mailed the additional discretionary notice.
- (d) The names of the persons who would represent the Department at the hearing.
- (e) A copy of the State Register containing the Notice of Hearing and the proposed rules.
- (f) A copy of Notices of Intent to Solicit Outside Opinion published at 14 State Register 1879 on January 22, 1990, and 14 State Register 2651 on May 14, 1990, and the written materials received by the Department in response to those notices.

All documents were available for inspection at the Office of Administrative Hearings from the date of filing to the date of the hearing.

12. The period for submission of written comment and statements remained open through January 16, 1991, having been extended by the Administrative Law Judge at the hearing the maximum period allowed by Minn. Stat. § 14.15, subd. 1. Comments from Lead Free Kids, Inc., received very shortly after the close of the business day on January 16, 1991, and supplemented January 17, 1991, has been considered as part of the record. The record closed on January 22, 1991, the third business day following the close of the comment period and the end of the statutory response period.

#### Adequacy of the Statement of Need-and Reasonableness

13. At the hearing and in written comments submitted at the hearing Mr.

Reagan stated that the SONAR was inadequate to allow the public to prepare testimony either in favor of or in opposition to the proposed rules. He stated that the SONAR did not support the rules with appropriate scientific studies or with citations to those studies and that, therefore, it was impossible to assess the scientific rationale of the Department's proposals. He requested that the hearing be postponed to allow the Department 30 days to issue a supplemental SONAR "summarizing the scientific studies in support of the proposed rule, based upon reasoned judgment and basic human values." Under his proposal, the public would then have thirty days to comment on the rules after seeing the supplemental SONAR. The Department opposed the request for postponement. The Administrative Law Judge denied the request at the hearing. Determination of the adequacy of the SONAR and the adequacy of the agency's presentation in support of its proposed rules through the SONAR and other evidence and argument it may present are two of the issues to be assessed in a rulemaking proceeding and in the Administrative Law Judge's report. If the agency chooses to proceed with the hearing and these items are fatally defective, the Administrative Law Judge will make such findings and the rules will not be adopted.

14. Mr. Reagan's written comments on the adequacy of the SONAR provides an extensive discussion of the role of science in setting health and environmental standards. The entire comment will not be restated here, but the following introductory paragraphs provide a background and overview of Mr. Reagan's argument:

The SONAR fails to provide adequate information with sufficient specificity for the public to prepare testimony in favor of or in opposition to the proposed RULE.

Under Minnesota law, agencies engaged in rulemaking with a hearing must make "an affirmative presentation of fact" which establishes "the need for and reasonableness of the proposed rule" (Minnesota Statutes, section 14.14. However, whether a hearing is held or not, Minnesota Statutes, section 14.131 requires the preparation of a "Statement of Need and Reasonableness" or SONAR. Minnesota Rules, Part 1400.0500, subpart 1 requires that the SONAR contain:

a summary of all of the evidence and argument . . . . justifying both the need for and the reasonableness of the proposed rules, including . . . citations to any scientific . . . . . treatises anticipated to be utilized at the hearing or included in the record

Minnesota Rules, Part 1400.0500, Subp. 2 requires that:

"The statement shall be prepared with sufficient specificity so that interested persons will be able to fully prepare any testimony or evidence in favor or opposition to the rules as proposed

Minnesota Rules, Part 2010.0700 requires that:

. . . the agency must explain what circumstances have created the need for the rule or its amendments which required administrative action and why the proposed rulemaking action is an appropriate solution for meeting the need. The statement must explain the evidence relied upon and how that evidence rationally relates to the choice of action taken

The Lead Coalition is an organization that participated in the development and passage of the 1990 lead law (Minnesota Statutes, section 144.071 to 144.878. Since the enactment of this law last spring, we have engaged in a continuous dialogue with both MDH and MPCA regarding

the development of the proposed rules and the scientific evidence in support of these rules. Therefore, it came as a surprise to us that the SONAR contains no summary,

no review and no analysis of the scientific evidence, which describes the nature of the paint, house dust, or drinking water lead problems. The SONAR does not review evidence on the hazards of improper abatement or on the value of the proposed abatement and assessment methods. The SONAR does not contain a list of studies describing the dose-response relationship between exposure to lead via a source and the resultant body burden, coupled with an explanation of how that body burden affects human health.

Instead of reviewing the scientific evidence or at least citing studies that do the SONAR under emphasizes the role of science and over emphasizes the role of regulatory precedent as a basis for decision making regarding these rules. Specifically, the SONAR (at 10) states in its argument in support of the reasonableness of the rule that:

"The proposed standards for lead in paint, dust, and drinking water are based on a combined consideration of scientific studies, public health protection, regulatory precedent, and practicality. Scientific studies are a necessary but inconclusive basis for setting standards for lead

Under Minnesota Statutes, section 14.131 and Minnesota Rules, Part 1400.0500, the SONAR should contain a listing of the scientific studies considered by the agency. Instead of listing the studies in support of the standards, the agency presents evidence that allegedly justify minimizing the role of scientific studies in standard setting. As a result of the failure to identify the scientific literature relied upon in the development of the rule, the agency has not provided a statement with sufficient specificity that the public can evaluate the evidence to either support or oppose the proposed rules. Hence, the agency has placed an unfair burden upon the public who generally support the concept of the rules to present evidence and Argument in- support of the rules.

15. The citation to Minn. Rule 1400.0500 is appropriate because that rule imposes requirements on SONARs used in rule proceedings when a public hearing is held. Minn. Rule 2010.0700 is a rule of the Office of Attorney General that applies when there is no public hearing and has no application in this proceeding.

16. The SONAR in this matter was prepared with sufficient specificity to

allow Mr. Reagan and other persons to prepare their testimony and evidence. The SONAR sets forth at some length the rationale used by the Department in proposing the rules and contains a bibliography of 38 scientific articles, reports and other documents it relied upon. Those documents were made a part of the record along with two additional scientific articles cited at the hearing. It is clear that Mr. Reagan was prepared; as his comments indicate,

the Lead Coalition had been closely involved in the legislation and had "engaged in a continuous dialogue with both MDH and MPCA regarding the development of the proposed rules and the scientific evidence in support of these rules." At the hearing, Mr. Reagan stated that he probably knew what Mr. Benson was thinking when he developed the rules and the SONAR. Mr. Reagan was able to present extensive oral testimony and written comments at the hearing analyzing the rules and the supporting evidence and criticizing it and supplementing it where he thought necessary. Interestingly, Mr. Reagan apparently found it unnecessary to submit any additional comments during the comment or response periods. It is found that the SONAR complied with the requirements of Minn. Rule 1400.0500.

17. Mr. Reagan argues that the agency's presentation, which was principally set forth in the SONAR, but supplemented by a few Department responses at the hearing and more fully in the Department's post-hearing comments and response, is inadequate to support the proposed rules. This argument is based on what Mr. Reagan perceives is too little reliance on the scientific evidence that would support the rules and too great an emphasis on the standards that have been set in other states and by the federal government, which were, he argues, adopted without scientific basis. In *Manufactured Housing Institute v. Pettersen*, 347 N.W.2d 238 (Minn. 1984), a formaldehyde standard adopted by the Department was attacked by the mobile home industry. There, the Department had adopted a standard for the maximum level of ambient formaldehyde permitted in new housing relying on field surveys and experimental studies that were acknowledged to be suspect or inconclusive. The court discussed the adequacy of the proof as follows:

Respondents (the Department of Health) concede that the data is imperfect and also that the Department may not adopt an arbitrary rule. Nevertheless, they contend -- and we agree -- that in fulfilling their obligation to protect the public health, it may be necessary, as here, to make judgments and draw conclusions from "suspected, but not completely substantiated, relationships between facts, from trends among facts, from theoretical projections from imperfect data, from probative preliminary data not yet certifiable as 'fact,' and the like." *Ethyl Corp. v. EPA*, 541 F.2d 1, 28 (D.C.Cir.), cert. denied, 426 U.S. 941, 96 S.Ct. 2662, 49 L.Ed.2d 394 (1976). See also *Amoco Oil Co. v. EPA*, 501 F.2d 722 739-41 (D.C.Cir. 1974). He also agree that deference is to be shown to agency expertise, "restricting judicial functions to a narrow area of responsibility, lest [the

court] substitute its judgment for that of the agency." Reserve Mining Co. v. Herbst, 256 N.W.2d 808, 825 (Minn. 1977).

In any event, appellants claim that the Department must sustain its rule by "substantial evidence." We think not. One of the grounds for judicial review of an agency decision in an adjudicated case, it is true, is whether it is supported by "substantial evidence," see section 14.-69(e); however, no similar grounds appear for review in a pre-enforcement rule proceeding. See section

14.45. It appears, therefore, that the legislature intended the traditional "arbitrary and capricious" test, rather than the more rigorous "substantial evidence" test, to apply in rulemaking proceeding. We so hold. Nevertheless, in determining if the agency acted arbitrarily and capriciously the court must make a "searching and careful" inquiry of the record to ensure that the agency action has a rational basis. See *Bowman Transportation, Inc. v. Arkansas-Best Freight System, Inc.*, 419 U.S. 281, 285, 95 S.Ct. 438, 441, 42 L.Ed.2d 447 (1974); and *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 416, 91 S.Ct. 814, 823, 28 L.Ed.2d 136 (1971). Further, the agency must explain on what evidence it is relying and how that evidence connects rationally with the agency's choice of action to be taken. *Bowman Transportation, Inc.*, 419 U.S. at 285, 95 S.Ct. at 441; *Reserve Mining Co.*, 256 N.W.2d at 825. (Footnotes omitted).

The court held that the Department had adopted a specific standard without explaining how it resolved the conflicts and ambiguities in the evidence, without explanation of any assumptions made or the suppositions underlying the assumptions and with no articulation of the policy judgments it made. Thus, the court concluded, there had been no reasoned determination of why the particular standard was selected and remanded the matter to the Department to allow it to provide such a rationale.

18. The Department cited several scientific documents in the SONAR that demonstrate that excessive absorption of lead is one of the most prevalent and preventable childhood health problems in the United States today. As to the general reasonableness of its proposed rules, the Department has set forth the following summary of its evidence, assumptions and rationale in the SONAR:

#### VIII. REASONABLENESS OF THE RULE

ATSDR (ATSDR, 1988, II-1) cites an estimate by Patterson in 1965 that pre-industrial humans probably had an average blood lead level of 0.5 micrograms of lead per deciliter of whole blood. The dispersive uses of lead have made attainment of blood lead levels of 0.5 micrograms per deciliter impractical, if not impossible, with existing technology. Attainment of blood lead levels below 25 micrograms per deciliter (ug/dl) is possible by abating lead sources that have been unsuccessfully or incompletely addressed.

The ATSDR Executive Summary (ATSDR, 1988, page 8) lists the following "key findings":

0 As persisting sources for childhood lead exposure in the United States, lead in paint and lead in dust and soil will continue as major problems into the foreseeable future.

0 As a significant exposure source, leaded paint is of particular concern since it continues to be the source associated with the severest forms of lead poisoning.

0 Lead levels in dust and soil result from past and present inputs from paint and air lead fall out and can contribute to significant elevations in children's body lead burden (i.e., the accumulation of lead in body tissues).

0 In large measure, paint and dust/soil lead problems for children are problems of poor housing and poor neighborhoods.

0 Lead in drinking water is a significant source of lead exposure in terms of its pervasiveness and relative toxicity risk. Paint and dust and soil lead are probably more intense sources of exposure.

0 Greater attention must be paid to lead exposure sources away from the home, especially lead in paint, soil, and drinking water in and around schools, kindergartens, and similar locations.

0 The phasing down of lead in gasoline has markedly reduced the number of children impacted by this source as well as the rate at which lead from the atmosphere is deposited in dust and soil.

0 Lead in food has been reduced to a significant degree in recent years and contributes less to body burdens in the United States than in the past.

0 Significant exposure of unknown numbers of children can also occur under special circumstances: renovation of old houses with lead-painted surfaces, secondary exposure to lead transported home from work places, lead-glazed pottery, certain folk medicines, and a variety of others (sic) unusual sources.

ATSDR (ATSDR, 1988, page 12) continues:

... Of particular interest is water as it comes from the tap not only in homes but in public facilities such as kindergartens and elementary schools. ...

Existing leaded paint in U.S. housing and public buildings remains an untouched and enormously serious problem despite some regulatory action in the 1970's to limit further input of new leaded paint to the environment. For this source, corrective actions have been a clear failure.



Lead in soil and dust also remains a potentially serious exposure source, and remediation attempts have been unsuccessful.

Lead-based paint, lead-contaminated dust, and lead-contaminated drinking water have been identified in Minnesota (ATSDR, 1988; Indian Health Board, 1989; Hennepin County, 1987, 1988, 1989, 1990; MDH, 1984, 1988a). Paint, dust, and drinking water are the lead sources addressed in the proposed rules.

Laws of Minnesota, 1990, Chapter 533, section 2, as codified into Minnesota Statutes, section 144.878, subdivision 2, paragraph (a), require the Commissioner of Health to adopt standards for lead in paint, dust, and drinking water. Since lead serves no useful biological purpose in people but is toxic to people, the ideal lead exposure to people is zero. As illustrated above, the lead exposure to people has been and remains much more than zero. Achieving zero lead exposure (removing all lead from the human environment) is not technologically possible, much less economically feasible, so "acceptable" levels of lead exposure must be set. Setting acceptable lead levels when zero is the ideal, but unattainable, level is an exercise in public policy that is open to debate. Interested parties may differ on what is acceptable.

The proposed standards for lead in paint, dust, and drinking water are based on a combined consideration of scientific studies, public health protection, regulatory precedent, and practicality. Scientific studies are a necessary but inconclusive basis for setting standards for lead in paint, dust, and drinking water (see discussion in section IX under part 4750.0300).

The proposed rules are intended to address the situation in Minnesota and therefore are similar to, but not necessarily identical to, rules adopted elsewhere. For example, unlike Minnesota, older urban areas in the East have few single family detached homes with yards in the inner city. Accordingly, some of the soil assessment requirements in the proposed rules do not exist in rules in the East. The proposed standards for paint and drinking water are within the range of standards adopted elsewhere. The proposed standards for dust are slightly more stringent than those adopted elsewhere. Tables 5 and 6 list standards that have been adopted in other jurisdictions.

19. While the Department relied less on the scientific studies and more



on regulatory precedence and practicalities than some would think appropriate, the Department has in fact set forth its analysis of the scientific evidence, its assumptions and the policy reasons it relied upon in proposing each of the rules presented here. It has, therefore, demonstrated that they are necessary and reasonable to the degree required by Minn. Stat. § 14.14, subd. 2.

#### Statutory Authority

20. The statutory authority of the Department to adopt the proposed rules is found in Minn. Stat. § 144.878, which requires the Commissioner to adopt rules to establish: 1) sampling and analysis methods for residential assessments; 2) standards for lead in paint, dust, and drinking water; 3) abatement methods for lead in paint, dust, and drinking water; and 4) variance procedures to allow for use of innovative abatement methods. The variance procedures are found in separate rules. The Commissioner is also authorized to adopt rules under Minn. Stat. §§ 144.05 and 144.12, for the preservation of public health. All these statutes provide the authority to adopt the proposed rules.

#### Small Business Considerations

21. Minn. Stat. § 14.115 requires agencies to consider the effect on small businesses when they adopt rules. In particular, Minn. Stat. § 14.115, subd. 2 sets forth five factors an agency must consider. In its Statement of Need and Reasonableness (SONAR), the Department stated:

The MDH has considered each of the five factors as follows:

1. Less stringent compliance or reporting requirements. Landlords do not have any reporting requirements in the proposed rules. Abatement contractors are only required to register with the commissioner and this requirement is in Laws of Minnesota, 1990, Chapter 533, section 6, as codified into Minnesota Statutes, section 144.876. Compliance with abatement preparations, abatement methods, and clean-up methods are based on protection of public health and the

environment by preventing or minimizing lead exposure. This is required by Laws of Minnesota, 1990, Chapter 533, section 7, as codified into Minnesota Statutes, section 144.878, subdivision 2. Allowing small businesses to meet less stringent compliance requirements would fail to satisfy the cited statute and is therefore inappropriate.

2. Less stringent schedules or deadlines for compliance or reporting requirements. The only schedules and deadlines in the proposed rules are for daily clean-up of the work site and for completion of final clean-up within seven days of completion of active abatement. Daily clean-up is necessary to protect public health and the environment, as required by Minnesota

Statutes, section 144.878, subdivision 2. This is also true of completion of final clean-up within seven days. Also, if the waste containment and daily clean-up requirements have been met, then the final clean-up deadline should not pose a problem since only vacuuming and washing remain to be done. Allowing small businesses to meet less stringent compliance requirements would fail to satisfy the cited statute and is therefore inappropriate.

3. Consolidation or simplification of compliance on reporting requirements. The only reporting requirement for small businesses in the proposed rule is registration. Registration is required by Minnesota Statutes, section 144.876. The proposed rules allow registration by telephone or letter. The proposed rules cannot be made significantly simpler on this point without exempting small businesses altogether but exemption would not satisfy the statutory requirement.

4. Design standards for small businesses. The proposed rules allow an abatement contractor to choose among several approved abatement methods. These methods are selected to protect public health and the environment as required by Minnesota Statutes, section 144.878, subdivision 2. Establishing design standards for small businesses is therefore inappropriate.

5. Exemption of small businesses from the proposed rule. Compliance with the proposed rules is needed for protection of public health and the environment by preventing or minimizing lead exposure. This is required by Minnesota Statutes, section 144.878, subdivision 2. Exempting small businesses from the proposed rules would fail to satisfy the cited statute and is therefore inappropriate.

22. The Department has considered the applicable specific methods for reducing the impact of its rules on small businesses as required by Minn. Stat. § 14.115, subd. 2.

No Fees Imposed by the rules

23. No fees are imposed by the rules. Therefore there is no requirement for the Commissioner of Finance to approve any fee schedule under Minn. Stat. § 16A.128, subd. 1a.

Agricultural-Land Impact

24. Minn. Stat. § 14.11, subd. 2, is inapplicable because the proposed

rules will not have any direct or substantial adverse impact on agricultural land in the state.

## Public Expenditures

2S. In its SONAR, the Department stated:

The adoption of these rules will not require expenditure of public money by local public bodies of greater than \$100,000 in the two years following promulgation. The proposed rules do not, of themselves, require any public expenditures since Minnesota Statutes, section 144.874, requires boards of health to perform the duties in the proposed rules. Minnesota Statutes, section 144.878, requires the Commissioner of Health to adopt the proposed rules. The costs are imposed by the statutory requirements rather than the proposed rules. The net fiscal impact of the proposed rules is therefore zero.

Minnesota Statutes, section 144.874, requires boards of health to: conduct assessments of residences when a child is identified with a blood lead level that exceeds 25 micrograms per deciliter or when a pregnant woman is identified with a blood lead level of at least 10 micrograms per deciliter; to issue abatement orders if violations of standards for lead in paint, bare soil, dust, or drinking water are found during the assessment; to post warning notices on all entrances to properties for which abatement orders have been issued; and to retest paint, bare soil, dust, or drinking water after the abatement has been completed. Minnesota Statutes, section 144.878, requires the commissioner of health to establish by rule the standards for lead, assessment procedures, and approved abatement methods.

A consolidated fiscal note (for the MDH and Pollution Control Agency) was prepared on March 28, 1990, for Minnesota Statutes, sections 144.871 to 144.878 (introduced as House File No. 1970, titled "Residential Lead Removal Bill" and Senate File No. 1937- 1E). The Department of Health's portion of the consolidated legislative fiscal note (Fiscal Note, 1990) estimated costs to local governments to be \$177,500 in the first year and \$184,600 in the second year. This estimate has not significantly changed.

26. There was concern expressed by Metropolitan counties about the costs of implementing the rules. In his prehearing comment and request for public hearing, Mr. Orth was concerned that the cost to local units of government, particularly counties, may far exceed any appropriated or available funding. He went on to state that since the federal government is currently formulating

a national strategic plan on lead abatement it may be preferable to coordinate the rules with the principles included in that plan. In its post-hearing comments, the Department replied to Mr. Orth's concerns as follows:

The Commissioner notes that Minnesota Statutes, section 144.874, subdivision 7, requires the State Planning Agency to prepare a strategy for financing and implementing a large scale subsidized lead abatement program and to make recommendations to the Legislature in the upcoming session. Minnesota Statutes, section 144.878, subdivision 2(a), requires the Commissioner to adopt these rules by January 31, 1991. Delay is not consistent with the statutory requirement and the Commissioner can not ignore this.

Katherine Cairns, St. Paul Public Health Director, raised similar concerns about costs and urged that the State first provide funding for local governments to implement the proposed rules as recently proposed in the Report of the 1990 Task Force on Lead Abatement Costs, January 1991. She referred to the costs of lead abatement on properties being from \$4,000 to \$10,000 each and stated that there were an estimated 70,000 properties in St. Paul containing some lead paint. In reply, the Department noted that the task force was to make recommendations to the Legislature this year and also noted that the cost of the lead abatement are not necessarily the responsibility of the local boards of health.

27. In post-hearing comments, Anoka County Commissioner Paul McCarron questioned the Department's claim that the fiscal note prepared for the legislation adequately addressed the cost to local governments and that the cost impact of the proposed rules was zero. He argued that there are a number of options available and that by adopting any certain option not specifically defined in statute there are cost impacts which have not been evaluated. In particular, Mr. McCarron claimed that the statute requires a board of health to perform an assessment based upon professional epidemiological principles that may or may not require testing while the proposed rules absolutely require testing. This he argued, was not analyzed under the fiscal impact. The Department replied that Minn. Stat. § 144.878, subd. 1, requires it to adopt, by rule, sampling and analysis methods for residential assessments and that the fiscal note prepared for the legislation did include sampling and analysis costs.

28. Commissioner McCarron also stated that the legislative fiscal note included only costs to Minneapolis and St. Paul and there was no evidence of consideration of costs for the rest of Minnesota outside Minneapolis and St. Paul. He estimated the cost to Anoka County to be at least \$10,000 per year based on ten cases of lead toxicity per year. The Department replied:

The Commissioner [of Health] believes the department did adequately address fiscal impact in the Statement of Need and Reasonableness. The fiscal note referenced was prepared for the legislation on Minnesota Statutes 144.871 to 144.878 which was adopted by the 1990 Legislature. The 1990 law replaced 1989 lead legislation which was applicable only to Minneapolis and St. Paul. The 1990 legislation was applicable statewide and the accompanying fiscal note took into consideration the changing applicability.

The fiscal estimate of impact to local government statewide addressed the full implementation of the statute. By the time 1990 legislation was adopted, the department had an emergency rule in place and the department and legislators thus had the benefit of knowing what the basic rule requirements would be when the 1990 law extended assessment and abatement activities statewide. The cost of assessment, including reassessment and sampling methods, were included in the fiscal estimates for the 1990 law. The department states in the Statement of Need and Reasonableness that the estimated costs to local public bodies "has not significantly changed". Most of the costs to implement the rules and statute will continue to be borne by Minneapolis and St. Paul. That is where most of the assessment and abatement work has and will continue to take place. Lead toxicity is predominately an urban problem.

The Commissioner notes that no lead toxicity case has ever been reported from Anoka County and that no basis is provided for the assumption of ten cases per year. It is therefore unclear that the rules will impose any cost on Anoka County. The fiscal note prepared for the legislation clearly stated that costs outside of Minneapolis and St. Paul were unknown due to a lack of data. Virtually all of the lead toxicity cases have been reported from Minneapolis and St. Paul. The Commissioner also notes that a sizable portion of the commenter's estimated costs is for a field X-ray fluorescence analyzer. This is not required but is one option. Laboratory analysis would be less costly if few lead toxicity cases are identified in Anoka County.

29. It is clear that the statute requires the Department to adopt these rules by January 31, 1991. While that date has been missed by a few weeks, it is not unreasonable for the Department to claim that it is required by law to proceed with the rules as rapidly as possible. Whether the costs of the duties imposed on local boards of health are funded is really a question for the Legislature. The Legislature was aware that costs would be incurred when it directed the Department to adopt rules and specified what they must contain. The costs of the actual lead abatement are a separate matter and the principal area to which the Task Force report to the Legislature is directed.

Despite the foregoing comments, the question of funding the local boards

of health for the duties imposed by the statute and these rules is one  
the new  
Commissioner may wish to consider in light of current budget problems  
for the  
State and local units of government. On the other hand, the grave need  
for  
lead abatement to protect our children is abundantly clear. The  
balancing of  
these interests is a question to be resolved in the political arena and  
not a  
question that affects the validity of these rules.

PART 4750.0010 Applicability

30. This rule states that the rules apply to anyone performing or ordering performance of abatement on residential sources of lead exposure. The prior statute and emergency rule on lead abatement had been limited to cities of the first class. This rule is necessary and reasonable to emphasize and explain that the rules apply to everyone performing or ordering abatement of residential lead anywhere in Minnesota.

31. David Lurie of the Minneapolis Health Department suggested that this provision be modified so that it only refers to abatement ordered by a board of health. Jeffrey Prescher and Kevin Florence of Pace Incorporated suggested that non-residential areas be considered for inclusion because abatement techniques should not differ materially from those proposed. Mr. Reagan suggested that the rule make it absolutely clear that it supersedes local ordinances to the degree of any conflict.

32. In its post-hearing comments, the Department stated:

MR. DAVID LURIE, Commissioner of the Minneapolis Health Department, suggests that Part 4750.0100 APPLICABILITY be changed so the sentence refers only to abatement ordered by a board of health.

The suggested change is not consistent with Minnesota Statutes, section 144.878, subdivision 2(a) [LEAD STANDARDS AND ABATEMENT METHODS.] which states that: "By January 31, 1991, the commissioner shall adopt rules establishing standards and abatement methods for lead in paint, dust, and drinking water in a manner that protects public health and the environment for all residences, including residences also used for a commercial purpose" (Emphasis added). The Commissioner interprets this statute to include all residences where abatement work is being done - not just those where a board of health orders abatement.

MR. PATRICK-REAGAN, representative of the Minnesota Lead Coalition, comments that some local boards of health already have ordinances regarding exposure to lead paint. He states that these ordinances require the removal of intact lead-based paint even if it is NOT a source of actual lead exposure. Mr. Reagan states that, when enforced, these ordinances are in direct conflict with this proposed rule and suggested that language be added that the proposed rules supersede other state rules and local ordinances.

Minnesota Statutes, section 144.878, subdivisions 2(a) and 4, prohibits the Commissioner and political subdivisions from requiring abatement of intact lead-based paint except in certain situations, these being "that the intact paint is accessible to children as a chewable or lead-dust producing surface and is a source

of actual lead exposure". In these situations, the board of health is compelled to issue an abatement order for intact paint.

Mr. Reagan also suggested the rules be revised to clarify that a board of health is not limited to applying these rules only to residences occupied by a child with an elevated blood lead or a pregnant woman with a blood lead level of at least 10 micrograms per decaliter. The Department responded in its post-hearing comments that such a revision was not necessary because nothing in the rules prohibits a board of health from doing so. A board of health may expand its assessment if it has the resources to do so.

33. In its post-hearing response, the Department added:

MR.--JEFFREY R. PRESCHER\_and MR. KEVIN M. FLORENCE. industrial hygiene technician and industrial hygiene technician supervisor, respectively, for Pace, Inc., suggest the scope of the rules be expanded to nonresidential property.

The Commissioner believes the statutory authority is limited to residential property. MR. PRESCHER and MR.-FLORENCE suggest that only trained inspectors be allowed to perform assessment and reassessment and that trained inspectors from companies outside of the board of health be allowed to perform these functions.

The Commissioner believes that the statute does not require inspectors to have training. Whether a board of health chooses to use its own employees for assessment and reassessment or contract for these activities is within the discretion of the board of health.

34. Proposed Minn. Rule 4750.0100 is necessary and reasonable for the reasons given by the Department.

#### PART 4750.0200 DEFINITIONS

35. The terms defined are terms that may have more than one meaning, are not commonly used or that require exact definition to be consistent with statute. In its post-hearing comments, the Department noted two reference errors: Subpart 10 refers to the definition of "Encapsulation" in Minn. Stat.

□ 144.871, subd. "6" that should read "7", and Subpart 12 refers to deteriorated paint as defined in subpart "7" that should read "8". Those corrections should be made.

Subpart 6, Bare Soil.

36. Under the proposed rule, "bare soil" means an outdoor area of one square foot or more where soil is visible. The authority to adopt rules

setting standards for an abatement methods for lead and bare soil on playgrounds and residential property is vested in the PCA by Minn. Rule 144.878, subd. 2(b). Those rules are presently in progress, with the report of the Administrative Law Judge having been issued on December 28, 1990, but with no final action by the PCA at this point. The PCA had originally proposed a different standard, but after several comments modified it so that it is the same as the definition proposed here. However, Administrative Law Judge Giles remained concerned about the vagueness in the rule, particularly with regard to determining how much soil must be "visible". Judge Giles suggested that a functional definition proposed by Judy Adams, of Lead Free Kids, Inc., be adopted. He suggested that "bare soil" be defined as any outdoor area where: 1) soil is accessible to children; or, 2) soil is capable of becoming dust by natural forces. In this proceeding, Ms. Adams suggests that the definition be changed to the language recommended by Judge Giles. Commissioner McCarron raises concerns similar to those raised in the PCA proceeding that the Department's proposed definition is unrealistic because soil could be visible even with sufficient vegetation to prevent erosion and that a one square foot area is too small for a child to play in. Obviously, one square foot of soil that is devoid of vegetation is more than enough for a child to stand on, play on or find a piece of dirt to put in his mouth. However, the concerns about how much soil is visible is legitimate and one that the Department acknowledges. The Department is aware of Judge Giles' report to the PCA and has stated that it will monitor the outcome of the PCA rulemaking in this regard. Judge Giles did not find that the PCA's proposed definition was unreasonable, but suggested that Ms. Adams' recommendation would be an improvement. The Administrative Law Judge here reaches the same conclusion and, in any event, the definition here should incorporate that ultimately adopted by the PCA.

Subpart 8, Deteriorated paint, and subpart-12, intact paint.

37. Under Subpart 8, "Deteriorated paint" or "deteriorating paint" means paint that has become or is becoming chipped, peeled, cracked, or otherwise

separated from its substrate or that is attached to damaged base material.

Under Subpart 12, "Intact paint" means any paint that is not deteriorated paint or deteriorating paint as defined in Subpart 8. In the SONAR, the Department explained these definitions as follows:

Subpart 8. "Deteriorated paint or deteriorating paint" is a term that is needed to distinguish between intact and deteriorating paint. Laws of Minnesota, 1990, Chapter 533, section 7, as codified into Minnesota Statutes, section 144.878, subdivision 2, requires that intact paint be distinguished from deteriorating paint. Some methods that are appropriate for abatement of intact paint are not appropriate for abatement of deteriorated or deteriorating paint. The definition in the proposed rules is reasonable because it allows practical, on-site determination of the condition of paint. This subpart has no corresponding subpart in the emergency rules and is added as a clarification.

38. The Department suggested a technical modification to this definition in its post-hearing comments:

The term "base material" in Part 4750.0200 DEFINITIONS Subpart 8, is undefined in the rule whereas the term "substrate" is a defined term. For consistency, the Commissioner will make the following change:

Deteriorated  
become

Part 4750.0200 DEFINITIONS. Subpart 8.  
paint or deteriorating paint. "Deteriorated paint or deteriorating paint" means paint that has  
or is becoming chipped, peeled, cracked, or otherwise separated from its substrate or that is attached to damaged base

This modification clarifies the matter and should be adopted.

39. There were extensive comments the definition of "deteriorated paint or deteriorating paint", from the Minnesota Lead Coalition and from Lead Free Kids. They feel very strongly that disturbing "intact paint" is far more dangerous than leaving intact paint intact. They feel that some local boards of health, namely, Minneapolis and St. Paul, have been much too quick to determine that paint is deteriorating and, therefore, order it to be abated, thus causing the attendant problems.

40. More specifically, in his written comments, as Mr. Reagan states:

paint,  
issue

With regard to the issue of exposure to lead based paint, the 1990 lead law takes a different approach to the issue than either most other states or by HUD. The policy reflected in the 1990 lead law is one of "interim containment" as opposed to "total removal" of lead based paint. A review of the reasoning for the interim containment policy is found in Lead Coalition, exhibit I (chapter four). This policy reflects the following factors:

- and
- 1.) most young children live in lead painted housing more than half the housing in the U.S. is lead painted;
  - 2.) intact lead based paint does not correlate with population blood lead levels;

- 3.) deteriorating lead paint does not correlate with population blood lead levels;
- 4.) deteriorating paint is a high risk factor for children with pica for paint; and,
- 5.) HUD estimates that it would cost in excess of \$500 billion to remove lead based paint in the U.S. (HUD 1990) and at least \$2 billion for Minneapolis and St. Paul (MSPA 1990).

In essence, then, epidemiological data and economic concerns do not mandate the removal of intact lead based paint.

The conclusion that lead based paint is not the sole major source and cause of the child lead problem is fundamentally different than the decades old myth that children only become poisoned as a consequence of exposure to lead based paint. In the last 70 years substantial efforts have made to delead housing in the U.S. Of an estimated 42 million housing units containing lead based paint only about 100,000 have been delead (CDC unpublished data). Many of these so-called abatement efforts merely transformed the intact lead paint into a lead dust resulting in additional poisonings and re-poisonings of young children (see Lead Coalition, exhibit 1, Chapter IV). As a result, the U.S. CPSC now recommends that homeowners not delead paint themselves (CPSC 1989) and a federal task force has recommended that the whole idea of deleading paint be re-examined (NIBS 1988). Because of all these factors and concerns, Minnesota has established an "interim containment" policy involving the paint stabilization, dust control in house dust and soil, and drinking water abatement as a preferred policy in protecting children from lead exposure.

Both the Minneapolis and St. Paul health departments have traditionally ordered intact lead based paint abatement in follow-ups of lead poisoned cases. While they may have tested for other lead sources (soil, water, house dust), they have not generally issued orders to cover bare soil, HEPA housings, or replace plumbing. Therefore, it appears that the myths of lead paint continue to drive cities responses on this issue. As a result, it is imperative that explicit guidance be provided in the rules as to when intact lead based point may be removed.

41. The comments of the Minneapolis Health Department are not entirely inconsistent with Mr. Reagan's comments. In Minneapolis' post-hearing comments, Mr. Lurie stated:

Subpart 4 and page 11 lines 9-11 -- The term "intact paint on surfaces . . . that are sources of actual lead exposure" is very ambiguous. If exposure means contact, then the rule should require removal of all intact paint that could be touched by children and pregnant women. If actual exposure means that teeth marks are present on the "intact" surface, then the surface can no longer be defined as "intact" because the paint would be dented or chipped by the chewing. Generally people recognize that intact paint is not a hazard. At this point the



Minneapolis Health Department does not recommend the removal of intact lead-based paint. If the State agrees with the City's position, then the phrase should be removed and the requirement that intact paint be sampled (subp 4, page 4) should be eliminated. There would be no need to sample because orders would not be issued to remove intact paint.

This comment makes it sound as if Minneapolis is unaware of the statute on this point or is confused about it. As the Department stated in its post-hearing comments:

Minnesota Statutes, section 144.878, subdivision 2(a), requires the Commissioner to differentiate between intact and deteriorating paint and to require abatement of intact paint only if that intact paint "is accessible to children as a chewable or lead-dust producing surface and is a source of actual lead exposure". Although limiting the extent of intact lead-based paint abatement, the Legislature intends that intact lead-based paint be abated in some circumstances. Deleting references to intact paint does not satisfy either the letter or the intent of the statute.

42. James Solem, Commissioner of the Minnesota Housing Finance Agency, expressed his agency's concern about abatement of intact paint in post-hearing comments. He stated:

Abatement of intact lead-based paint is a serious issue for those of us concerned about housing affordability and the preservation of the existing housing stock. Recent studies have shown that abatement of intact lead-based paint may cost anywhere from fifteen to forty times as much as abatement of lead-contaminated dust or soil on residential property.

The Agency interprets the statutory and regulatory language to require abatement of intact lead-based paint when two criteria are met: the paint is on a chewable or lead-dust producing surface; and the paint is a source of actual lead exposure. The meaning of "chewable" is reasonably self-evident. However, unlike other terms defined in the statute and regulations, "a lead-dust producing surface" and "a source of actual lead exposure" appear to be open to a wide ranging level of interpretation.

How much lead dust must a surface produce in order to be widely recognized as being "lead-dust producing"? Must a causal relationship between a particular surface and lead exposure in a child or a pregnant woman be demonstrated

in order for material to be considered "a source of actual lead exposure"? In a home with a child or pregnant woman who meets the threshold blood levels of

lead, is any material containing trace amounts of lead a "source of actual lead exposure"?

These rules will be enforced by county and city health departments across the state with varying levels of staff experience. In order to avoid both inadequate abatement that threatens the health of the residents of the housing as well as unnecessary abatement that threatens the resident's shelter by enormously increasing costs, it is important to provide definitions for these two key phrases which are widely accepted, readily quantifiable and directly related to the health risks.

Unnecessary abatement of intact lead-based paint has the potential to be extremely costly and to produce substantial amounts of hazardous material. There is a housing affordability crisis in the state of Minnesota. The cost of shelter has outstripped the ability of thousands of Minnesota families and individuals to afford decent housing. The Agency is concerned about the source of funding to implement rules which do not establish clear and enforceable standards.

43. In its post-hearing comments, the Department stated:

Mr. REAGAN suggests that additional terms be defined in the rule in order to clarify when a paint violation occurs. He suggests that, in Part 4750.0200 DEFINITIONS Subpart 8. Deteriorated paint or deteriorating paint, the word "cracked" be deleted and that a minimum area of at least five square feet be required for a violation.

The Commissioner does not see a basis for selecting five square feet as a minimum area for deteriorating paint and believes that irregular deteriorated surfaces could be difficult to measure and therefore implementation of a minimum area would be difficult. The commenter does not suggest how to implement this suggestion.

However, the Commissioner agrees that deleting the word "cracked" is desirable since a crack does not necessarily mean that paint is separating from the substrate. The Commissioner thus proposes to modify subpart I as follows:

Part 4750.0200 DEFINITIONS. Subpart 8. Deteriorated or deteriorating paint. "Deteriorated" or "deteriorating paint" means paint that has become or is becoming chipped, peeled, cracked, or otherwise separated from its substrate or that is attached to damaged base-material substrate. (Prior correction added).

MR. REAGAN suggests that a definition of "chewable surface" be added in Part 4750.0200 DEFINITIONS. He

recommends the definition as "any lead painted surface

less than four feet from the floor that is shaped with an angle of 110 degrees or less and extends more than one-fourth inch away in both directions from the vertex of the angle."

The Commissioner finds that the suggested criteria, i.e., four feet, one-fourth inch, and 110 degrees, may be arbitrary. The commenter does not provide a basis for them. The Commissioner notes that children may climb on furniture and thereby be able to reach surfaces above four feet from the floor. The Commissioner believes that specifically defining these terms will prevent the use of judgment by a board of health in individual situations to an extent that is not desirable. Residences in Minnesota vary greatly in age, design, maintenance, and occupancy so the inspector needs to assess each actual, individual situation.

MR. REAGAN suggests that a definition of "lead-dust producing surface" be added to Part 4750.0200 DEFINITIONS. He suggests defining the surface as "any movable surface, which, as a function of its normal use, results in the generation of lead dust, and does include only that part of double hung window which actually rubs against another surface generating a dust."

Specifically defining this term will prevent the use of judgment by a board of health in individual situations to an extent that is not desirable. A lead-dust producing surface could include a stationary surface against which a movable surface rubs. Residences in Minnesota vary greatly in age, design, maintenance, and occupancy so the inspector needs to assess each actual, individual situation.

MR, JAMES SOLEM, Commissioner of the Minnesota Housing Finance Agency, also suggests that "lead-dust producing surface" and "source of actual lead exposure" be defined in the rules because a lack of these definitions may result in inconsistent enforcement and inequitable economic hardship on owners of residential property. He suggests that implementation of the permanent rules be delayed until the threshold requirements which trigger abatement of intact paint are adequately defined. Mr. Solem states that, although the Department of Health is in a better position to review the scientific data that could be used in defining "lead-dust producing" and "source of actual lead exposure", his Agency will be glad to continue work with the Commissioner to define these terms.

The Commissioner notes that the proposed rules have "threshold requirements which trigger abatement" in the proposed standards for lead in paint, dust, and drinking



water .

Minnesota Statutes, section 144.878, subdivision 2(a), requires the Commissioner to differentiate between intact and deteriorating paint and to require abatement of intact paint only if that intact paint "is accessible to children as a chewable or lead-dust producing surface and is a source of actual lead exposure". The terms "chewable or lead-dust producing surface" and "source of actual lead exposure" are not defined in the statute. Although limiting the extent of intact lead-based paint abatement, the Legislature intends that intact lead-based paint be abated when, but only when, it is "accessible to children as a chewable or lead-dust producing surface and is a source of actual lead exposure".

The boards of health who will be implementing these rules through their housing inspection activities are aware of and concerned about the cost of abatement and are unlikely to require expensive abatements without good cause. Precisely defining the terms may excessively limit the ability of inspectors to deal with a wide variety of housing types and conditions. The Commissioner will monitor the consistency of enforcement of the proposed rules and assess the need for training or rule revision.

Minnesota Statutes, section 144.878, subdivision 2(a), requires the Commissioner to adopt these rules by January 31, 1991. Delay is not consistent with the statutory requirement and the Commissioner can not ignore the legislative mandate.

In requesting a public hearing, MS. JUDY ADAMS, representative of twenty-five petitioners for hearing, suggests the definition of deteriorating paint provide that any loose paint contributing to house dust be defined as a violation.

The definition of deteriorating paint in Part 4750.0200 DEFINITIONS, Subpart 8, already includes paint that is separating from its substrate which is "loose paint".

44. The Department has demonstrated that its proposed rules defining deteriorated and intact paint are reasonable. Everyone now seems to recognize the danger, and expense, of removing intact lead-based paint. There will no doubt be some differences of opinion in particular cases, but the rules are specific enough to guide boards of health who do assessments and order abatement without being unduly restrictive.

Subpart 15- Residence.

45. Ms. Adams points out that the definition of "residence" could  
be

construed as not applying to day care facilities. Two children in a recent study conducted by Lead Free Kids were determined to have become lead poisoned in day care facilities. She suggests that the language be modified to state a specific period of time that constitutes a residence other than the primary one and refers to Minn. Stat. § 144.874, subd. 1(a)(2). That is the statute that provides that an assessment is required if a child in the residence is identified as having an elevated blood lead level. It goes on to state, "If a child regularly spends several hours per day at another residence, such as a residential child care facility, the Board of Health must also assess the other residence." It should also be noted that Minn. Stat. § 144.878, subd. 2(a), requires the Commissioner to adopt rules for lead and paint, dust, and drinking water in a manner that protects the public health and the environment for all residences, "including residences also used for a commercial purpose." Ms. Adams is correct that the proposed rule can be construed to not apply to day care facilities because it only refers to structures used or intended for use as single family habitation and dwelling units within a structure used or intended for use as multi-family habitation. The statute still applies, but it would be very helpful to clarify the requirement in the rules. For example, this rule could be modified as follows:

Subp. 15. Residence. "Residence" means:

A. every structure used or intended for use as single family habitation, including exterior structure and ground surfaces, and every other structure located within the same lot; es

B. a dwelling unit within a structure used or intended for use as multifamily habitation, including common areas located within the same lot and exterior structure and ground surfaces but not including other dwelling units.;  
Or

C. every location such as a residential child care facility. in which the child regularly spends several hours per-day and.-all associated structures and areas to which the-child has access.

The Department may consider excluding schools and similar institutions from the definition if appropriate. The clarification could be made in the assessment rule instead, if the Department desires.

46. Ms. Adams also suggests that consideration be given to requiring owners of multi-unit properties to clean up all units when abatement in one unit is required. She suggests that at least simple abatement measures such as wet cleaning and stabilization of potentially risky surfaces is not too much to ask of these owners and that with the quick turnover of rental units, compliance with the standards and safety measures is less likely. Ms. Adam's suggestion is something the Department may wish to consider in the future, but at this point it would be a substantial change from the rule as proposed and could not be adopted.

47. Proposed Minn. Rule 4750.200 is necessary and reasonable for the reasons given by the Department.

PART 4750.0300-STANDARDS

48. This rule sets the actual standards for lead levels in residential paint, residential dust and drinking water. The residential paint standard is a concentration of 0.5% or more by dry weight or 1.0 mg/cm<sup>2</sup> as measured by x-ray fluorescence analyzer. The standard for dust is Po ug/ft<sup>2</sup> on a hard surface floor, 300 ug/ft<sup>2</sup> on a windowsill and 500 ug/ft<sup>2</sup> on a window well. Dust in carpeting must not contain lead in a concentration of 300 ppm. The standard for drinking water is 50 ug/l. As the Department explained in its SONAR:

Laws of Minnesota, 1990, Chapter 533, section 2, as codified into Minnesota Statutes, section 144.878, subdivision 2, paragraph (a), requires the Commissioner of Health to adopt standards for lead in paint, dust, and drinking water. Since lead serves no useful biological purpose in people, the ideal lead exposure to people is zero. Zero lead exposure is not technologically possible, much less economically feasible, so "acceptable" levels of lead exposure must be established. Since scientific studies do not identify maximum allowable lead exposure levels (see discussion below), the proposed standards for lead in paint, dust, and drinking water are based on a combined consideration of scientific studies, public health protection, regulatory precedent, and practicality.

Many scientific studies of lead exposure have been conducted but, as Elwood concludes (Elwood, 1986, p. 18):

The degree to which current methods of measurement of lead in the sources truly represent the actual exposure of subjects is unknown.

Simply put, the available scientific data do not allow for use of a mathematical formula that can definitively account for all of the potential contributing sources, risk factors, and biological intake and uptake variables to generate a regulatory standard for lead.

The Department then goes on in the SONAR at considerable length explaining its reasons for proposing the standards in this rule. SONAR, at 17-25.

49. Mr. Lurie suggested that one standard should apply to both old paint and to new paint. In its post-hearing comments, the Department stated:

The commenter did not explain why there should be one standard or specify what standard should apply. The proposed rules set a standard for lead in paint at 0.5% while the Consumer Product Safety Commission has set a standard of 0.06% for newly manufactured paint. The commenter presumably intends the latter to be the one

standard since the State cannot set a less stringent standard than the federal regulation. There is a dilemma with old lead-based paint. At present, it is impractical to safely remove all lead-based paint. Removal of existing lead-based paint potentially releases large quantities of easily ingested lead particles. Therefore, requiring abatement of lead-based paint is not without hazard. However, leaving paint in place that contains lead even at a low concentration may allow some lead exposure. Therefore, a balance has to be reached between the ideal and the practical. The Commissioner believes that a standard of 0.5% lead in old paint strikes this balance.

Ms. Adams states that the paint standard is misleading because it implies that paint containing lead in a concentration of less than the standard is not hazardous and someone could use dry sanding methods on that paint without risk of contaminating the house beyond the dust standard. She states that the risk does exist and that no paint with any lead content should be dry sanded. As noted above, the Department does recognize that there are dangers in removing low concentration lead-based paints as well as leaving it in place. However, it is necessary in these rules to set some level and the Department has provided a rational basis for choosing 0.5%.

50. Mr. Reagan supported the house dust standards and abatement methods. However, he argued that the Department had not made an affirmative presentation of facts supporting the standard because it did, again, under emphasize the value of scientific studies in setting the standards. Mr Reagan then went on to set forth arguments for establishing house dust standards by review of scientific studies that establish that house dust is a major source of exposure to children and that even low levels of exposure to house dust pose a significant risk to young children and by providing documentation that the standards are achievable. A mathematical model suggested by Mr. Reagan for determining appropriate lead standards, using certain default values, resulted in a standard that was less than zero. While this would tend to indicate to the Administrative Law Judge, admittedly not a mathematician, that the model or default values were suspect, Mr. Reagan concludes that it means

that in order to protect the public health, house dust lead standards should not exceed natural background levels. Thus, the scientific evidence cited by Mr. Reagan led to the same conclusion cited by the Department that the standard should be as close to zero as possible. Mr. Reagan also cited data collected by the Minneapolis Public Housing Authority at one residence indicating that phosphate detergent washing followed by vacuuming with a high efficiency particle accumulator (HEPA) can result in abatement levels below 10 ug/ft .

Mr. Reagan also suggested that the proposed standard for lead in drinking water is unnecessarily high, and suggested that it be set at 20 ug/l. The Department responded:

As stated in the Statement of Need and Reasonableness (page 25) the proposed standard is consistent with the existing federal standard for lead in drinking water. The Commissioner is aware that the United States

Environmental Protection Agency (EPA) is reviewing the federal standard for lead in drinking water and may lower the standard. If and when the EPA revises the federal standard, the Commissioner will respond in accordance with Minnesota Statutes, section 144.383, which requires the Commissioner to adopt a standard that is no less stringent than the federal standard.

51. Proposed Minn. Rule 4750.0300 is necessary and reasonable for the reasons given by the Department.

#### PART 4750.0400 ASSESSMENT

##### Subpart 1 General.

52. This rule sets forth when a board of health must make an assessment of a residence, when it must order a property owner to perform abatement and how assessments are to be made, that is, what samples must be collected and the appropriate methods for doing so. Again, the Department set forth its rationale for this rule at length in the SONAR at 25-31.

53. Mr. Reagan argued that the proposed rule must clearly state that assessment and abatement requirements may be enforced whenever any standard is exceeded. He suggested that this subpart be modified to require a board of health to act on the findings of any assessment conducted under these rules in a manner as described in this part. He suggested that language be added to state that nothing in this part limits the application of this rule to only those residences where a pregnant woman has a blood lead level of at least ten micrograms per deciliter or where a child has an elevated blood lead level. In its post-hearing comments, the Department replied:

The suggested change could be interpreted as requiring a board of health to act on the findings of an assessment done by some other entity. The statute does not require a board of health to do this nor does the Commissioner consider this to be desirable. Minnesota Statutes, sections 144.871 through 144.878, does not limit the application of these rules by a board of health to residences other than those in which reside a child with an elevated blood lead or a pregnant woman with a blood

lead level of at least 10 micrograms per deciliter.

Subpart 2 Assessment required

54. Commissioner McCarron stated that this subpart gives no consideration to the possibilities that sources of lead other than lead paint or lead paint dust or that exposure at a previous residence may be the source of lead toxicity. The Department replied:

The Commissioner [of Health] notes that the proposed rules include soil and drinking water in addition to lead-based paint. The Commissioner notes that the proposed rules do not prevent a board of health from

investigating any possible lead sources or a previous residence. Lead exposure and lead toxicity have been caused by lead-glazed ceramics, lead fishing weights, etc., but these are fairly rare. If lead sources at a previous residence caused a case of lead toxicity, this would not preclude the present residence from contributing to the lead exposure. Response must include the present residence to protect the health of the child or pregnant woman. The commenter does not suggest alternate language.

55. Mr. Peter suggested that this subpart should state that property owners may agree to perform lead abatement without first having an assessment done by the board of health and that if the property owner fails to volunteer, the health board must proceed to perform sampling and analysis. The Department replied:

The suggested change regarding part 4750.0400, subpart 3, is already in the proposed rule at part 4750.0500, subpart 1. The Commissioner believes that individual circumstances, such as the age and general condition of a residence, may cause a concerned property owner to volunteer to proceed with abatement without first having an assessment done by a board of health. However, the property owner is not required to perform abatement without first having an assessment done by a board of health

Subpart 4, Paint.

56. This subpart states that in conducting an assessment the Board of Health must test the paint from each type of surface. It goes on to state, "A board of health must test deteriorating paint and intact paint on surfaces that are accessible to small children as chewable or lead-dust producing surfaces and there are sources of actual lead exposure." This particular sentence is a bit confusing because it can be read to limit testing of deteriorating paint to surfaces accessible to small children as chewable or lead-dust producing surfaces that are also sources of actual lead exposure while those limitations actually only apply to intact paint. As Ms. Adams points out, "Deteriorating paint does not have to be identified with actual exposure according to the law, intact paint should be dealt with separately with regard to actual exposure." That is clearly what the Department intended, but this sentence does not carry out that intent very clearly. It should be clarified. One possible change would be to revise it to read:

A board of health must test all deteriorating paint and

must test intact paint on surfaces that are accessible to small children as chewable or lead-dust producing surfaces and that are sources of actual lead exposure.

57. The rule provides two methods for testing paint: In-place paint is tested by an X-ray fluorescence analyzer and paint chips are tested following an acid digestion method set forth in an APA manual specified in the rule.

Ms. Adams commented that that analysis of lead chips and other sources should be conducted with an "AA" machine because the "XRF" is inadequate at lower

levels of lead paint and unreasonably expensive to purchase and maintain. At the hearing, Mr. Florence, of Pace, Inc., and Thomas Powell, of Braun Environmental Laboratories, had similar comments and questioned the adequacy of the X-ray fluorescence analyzer to measure in-place lead-based paint and the availability of these expensive machines. The Department replied to these comments in its post-hearing comments:

The Commissioner is aware that the field X-ray fluorescence analyzer (XRF) must be operated by a properly trained individual. Properly trained individuals are needed for all laboratory methods and this is not a reason to disallow the XRF. The XRF does not travel well. It is sensitive to being bumped and extreme temperatures. These matters can be addressed by proper operation. The XRF can take a very large number of readings without additional operating costs, does not damage the surface tested, and provides an immediate result. These are significant advantages over laboratory methods. There are three XRF machines available on loan from the Minnesota Pollution Control Agency. Two environmental laboratories have XRF machines on a fee-for-service basis. Although an XRF is expensive at \$10,000 or more, laboratories equipped with atomic absorption spectrophotometers are also expensive. Also, the proposed rules provide that laboratory methods may be used to overrule a disputed XRF result (See Part 4750.0300, subpart 1). Finally, as noted in the Statement of Need and Reasonableness on page 22, several other jurisdictions use a field XRF for regulatory purposes. The Commissioner believes that the field X-ray fluorescence analyzer is a useful tool that should be allowed as provided in the proposed rules.

58. Richard Peter, Director of Environmental Health for the Olmsted County Health Department, suggested that Department provide X-ray fluorescence instruments at each of its regional offices and provide them to county health departments as needed to conduct case assessments. The Department replied:

Minnesota Statutes, sections 144.871 through 144.878, do not require or provide funds for the Department to do this. The proposed rules provide a choice of methods of either atomic absorption spectrophotometry (commercial chemical laboratories have these) or X-ray fluorescence

analysis. A board of health is not required to purchase an X-ray fluorescence analyzer.

59. Mr. Lurie thought there was an inconsistency in the acid treatment of samples prior to lead testing and suggested that the acid treatment of the samples should be the same for all types of material analyzed for lead. The Department disagreed that every material should be analyzed by the same treatment because different materials have different bioavailabilities and therefore differing degrees of hazard. This is reflected in the use of different analytical methods.

60. Ms. Adams made extensive comments regarding assessment of dust for lead content. She stated that carpet dust is documented as a prevalent source of lead. The proposed rule provides that carpeting must be tested for lead in dust nearest the main entrance and elsewhere if the carpet appears to be soiled or worn. Ms. Adams suggested that sampling of carpet dust is necessary whenever the occupant does not own a vacuum and cleans the carpet by sweeping. 95% of the participants in a recent Lead Free Kids research project did not own or have access to vacuum cleaners. She suggested that new language should be added that would require carpet sampling in all cases where soil erosion has contaminated sidewalks and the regular method of cleaning the carpet is sweeping. Ms. Adams' suggestion appears helpful because some persons doing assessments may not be aware of this situation. Perhaps an additional clause can be added to this sentence so that it reads, ". . . if the carpet appears to the board of health to be in a soiled or worn condition or has --not been subject to regular cleaning with a vacuum cleaner

61. Ms. Adams also described sampling techniques that have proven effective in her experience. She describes techniques for wearing multiple layers of sterile gloves, using size gauges to be sure the sample is from a one square foot area, proper use of the wipes, use of vacuum cleaners to collect dust samples in carpets and use of a rubber pointed nozzle on a vacuum for sampling loose debris in window wells. Again, the Department has provided the rationale to demonstrate that its proposed methods are reasonable, but it may wish to consider Ms. Adams' suggestions for incorporation in the rule at this time or at a later date.

#### Subpart 6, Drinking-water.

62. Mr. Lurie commented that using the cited guidelines to sample water will be extremely difficult in a home situation because water in the home is not to be used after 6 pm and in the morning before the sample is to be taken. These procedures would be very difficult for most families to follow.

The Department replied:

The cited guideline, "Lead in School's Drinking Water," prepared by the Office of Drinking Water, United States Environmental Protection Agency, Document 570/9-89-011, January 1989, requires on page 30 that water be allowed to sit in the pipes unused for at least eight hours but does not specify that water cannot be used after 6 p.m. Thus the period of disuse can be arranged with the affected property owner or resident.

Subpart-7. SQil

63. In its post-hearing comments, the Department noted a reference error in Subpart 7; it should refer to Minn. Stat. § 144.878, subd. 2(b), not 2(c). That correction should be made.

64. Ms. Adams opposed the provision of this subpart that allows a board of health not to collect and test soil samples from a residence if the property owner agrees to treat the bare soil according to the PCA abatement procedures. She stated that if a child is lead poisoned from soil or dust in the house, no documentation will exist to protect children that suffer prolonged exposure and permanent brain damage caused by violations of the standard. She stated that taking the samples is important and that samples could be stored even if they were not analyzed. In the SONAR, the Department justified this provision as a reasonable option to reduce the cost of sampling and analysis where proper abatement will be performed. The Department's position is not unreasonable,

65. Item A of this part requires a map to be prepared of the residential property showing the residential structure, gardens, sidewalks, play areas and other features and structures. Ms. Adams suggests that the rule should require that the map show areas of bare soil or the locations where samples are taken. Again, her suggestions appear to be helpful and the Department should consider them for inclusion.

66. Commissioner McCarron comments subpart 7 imposes excessive sampling and analysis requirements without evidence that a child has actually been exposed to the bare soil. He also commented that a pregnant woman would not be exposed to bare soil and thus assessment in the case of her exposure is unnecessary. The Department replied:

Minnesota Statutes, section 144.874, subdivision 1, states that:

"(a) A board of health must conduct a timely assessment of a residence to determine sources of lead exposure if:

(1) a pregnant woman in the residence is identified as having a blood lead level of at least ten micrograms of lead per deciliter of whole blood; or  
(2) a child in the residence is identified as having an elevated blood lead level.

(b) The board of health must conduct the residential assessment according to rules adopted by the commissioner according to section 144.878, subdivision 1."

The Commissioner notes the statute does not provide for an assessment based on a determination that there has been actual exposure from a specific source. (The only reference to "actual exposure" in the statute deals with abatement of intact lead-based paint.) Assessment can be used to determine whether there is lead present that could be the source. The statute does not provide an exception to assessing a lead source based on whether the lead toxicity case is a pregnant woman rather than a child. Therefore, soil must be assessed in every lead toxicity case. The Commissioner believes the suggested determination of whether a child has actually been exposed to bare soil would itself require an assessment by a board of health.

Subpart 8, Soil assessment larger than a residence

67 . Mr. Lurie stated that special assessments will only be conducted for special purposes and the circumstances will dictate what procedures should be used. Thus, he suggests deletion of this subpart. The Department replied:

The Commissioner believes it necessary to establish a procedure for soil assessment beyond an individual residence since MPCA data have shown wide-spread lead contamination in soil ("Soil Lead Report to the Minnesota State Legislature, 1987). The circumstances for lead in soil are already known in some detail; e.g., foundation soil samples have the highest average lead content compared to midyard, backyard, or streetside soil samples.

68. Mr. Reagan commented that large-scale soil sampling results need to be placed in an appropriate context and suggested that three or more of the samples collected must exceed the standard before a census tract be considered in violation of the bare soil standard and before it be eligible as a priority for response actions developed under rules issued by the PCA. The Department thought this suggestion would be more appropriately implemented in PCA rules because it has authority to set soil lead standards and abatement methods under Minn. Stat. § 144.878.

69. This subpart requires a map to be prepared of the area showing the location of residences, boulevards, streets, alleys, schools, playgrounds and all areas of bare soil. Ms. Adams suggests that in this case, the ability to display bare soil areas throughout a community is difficult to illustrate on large maps. She suggests that the purpose of the map is to determine the cost and extent of the problem which could be addressed by determining estimated percentages for areas with varying amounts of deteriorating grass. She states that the necessary data is the square yards of yard space that exist and that high risk communities that have large rental property to be labelled and a determination made on the likely extent of the problem. Ms. Adams is probably correct that showing areas of bare soil throughout a community would be very

difficult and it could be deleted from the rule requirements. Her alternative is not entirely clear to the Administrative Law Judge but it does seem appropriate to require some indication of ground area and some method of at least estimating whether particular ground areas are covered with sod or "bare soil". The Department may wish to consider a modification to the rule.

70. In its post-hearing comments, the Department noted that this subpart may be misleading and proposed to modify subpart 8 as follows:

Part 4750.0400, subpart 8. Soil assessment larger beyond a residence. If a board of health undertakes the assessment of lead contamination in an area larger beyond a residence, the board of health must .....

In response to the questions at the hearing, the Department has also proposed the following changes to clarify various provisions:

Part 4750.0400, subpart 8, item C. Twelve samples must be collected of from each soil sample location in the area. For purposes of this subpart, soil sample location means soil collected:

- (1) within three feet of a foundation; en sad
- (2) within three feet of a street, sidewalk, alley, driveway, on apd,
- (3) from-any-other-area an area of-the residential property not described in subitems (1) and (2)

Part 4750.0400, subpart 7, Soil, item D. A standard soil sampling tube or a putty knife is an acceptable sampling tool. A sampling tool must be cleaned prior to each use

Part 4750.0400, subpart 8, Soil, item E. A standard soil sampling tube or a putty knife is an acceptable sampling tool. A Sampling tool must be cleaned -prior to each usen

These changes are appropriate and should be adopted.

71. Proposed Minn. Rule 4750.0400 is reasonable and necessary for the reasons given by the Department.

#### PART 4750.0500 Lead Abatement Methods

##### Subpart 1. General.

72. This rule requires anyone performing lead abatement to follow its requirements and prohibits abatement until an assessment is completed or until the property owner agrees in writing to follow the requirements of the rule. It then describes paint abatement preparations and methods, prohibited paint abatement methods and dust abatement methods, requires daily waste removal and describes final cleanup and drinking water abatement methods.

73. Mr. Lurie commented that there is no provision in law for informing the public about proper abatement methods, monitoring the process or penalty for noncompliance and it seemed unnecessary to apply this rule to voluntary abatement. The Department replied that the suggested change was not consistent with Minn. Stat. § 144.878, subd. 2(a), which requires the Commissioner to "adopt rules establishing standards and abatement methods for lead in paint, dust, and drinking water in a manner that protects public health and the environment for All residences, including residences also used

for a commercial purpose." (Emphasis added).

Subpart-2, Point abatement preparations.

74. Item B of this subpart requires the party undertaking abatement to notify occupants of the residence of the presence of lead and the schedule for abatement. Ms. Adams suggests that the property owner is the one responsible to the tenant and should notify the tenant. She suggests that abatement contractors are unlikely to include these services in their estimates and may not have the capability of notifying the tenants. She also notes that the law

contamination and the carrying of lead dust out of the controlled area or for negative air to minimize the lead dust in both the control area and the areas around the control area. He suggested extensive additions to this part. The Department found the suggested changes regarding the openings into the work area to be reasonable clarifications and proposed to modify Subpart 2 as follows:

Part 4750.0500. subpart 2, item C. For interior paint abatement:

(1) ...

(2) ..

(3) The rooms to be abated must be sealed from the rest of the residence and from the exterior by securely taping six mil or equivalent thickness tarpaulins or plastic over windows or doors not to be used during abatement and over any other openings into the work area such as but not limited to heating vents air conditioning vents and plumbing. electrical, or telephone-system penetrations of floors wall or ceilings.

This modification should be adopted. The Department went on to state:

. . . The other suggested changes are unnecessarily stringent since other provisions of the proposed rules (Part 4750.0500, subpart 2, "Paint abatement preparations" and subpart 3, "Paint abatement methods") are designed to minimize dust and debris generation. Although there are similarities between lead abatement and asbestos abatement - from which Mr. Keers suggestions are drawn, there are also differences between these materials including the fact that lead dust and debris does not remain airborne nearly as readily as asbestos. The Commissioner will continue to monitor the adequacy of the proposed rules to protect the health of residents and abatement workers, the need to provide further protection in the proposed rules, and the adequacy of other protection afforded by other regulations such as occupational safety and health rules.

79. Mr. Lurie noted that the requirement in Part 4750.0500, 2.C(2), for relocation of residents did not identify who was responsible for the cost of relocation and cleaning of their belongings. He asked if the resident, property owner, local board of health, or state health department was responsible. The Department responded that that matter was not addressed by the statute. The costs of the actual abatement are to be addressed by the Legislature in considering the Task Force Report referred to above.

80. Mr. Lurie suggested that, for exterior paint abatement, neighbors should be notified. The Department agreed that this was desirable and proposed the following language:

Part 4750.0500 LEAD ABATEMENT METHODS. Subpart 2.  
Paint abatement preparations. Item D, For exterior  
paint abatement:

(1) occupants of the residence to be abated and of adjoining -residences must be advised to remove a I I personal property from the lot before abatement and to close all doors, windows, and storm windows during abatement;

81. Subpart 2D(2) states that tarpaulins or plastic "in good condition" must be secured to the foundation, overlapped at least 18 inches and laid on the ground at least 15 feet in all horizontal directions. The placement of the term "in good condition" is potentially confusing. It is apparently a requirement that tarpaulins and plastic must be in good condition, but that would be made more clear if it were made one of the specific requirements. A change such as the following is suggested:

- D. (2) tarpaulins or plastic in-good-condition must be:
  - (a) secured to the residence foundations;
  - (b) overlapped at least 18 inches where the tarpaulins or plastic meet and secured to each other; and
  - (c) laid over the ground at least 15 feet in all horizontal directions from the surface to be abated. An additional five feet of tarpaulin is required for each floor to be abated above the first floor to a maximum of 25 feet; and
  - (d) in good condition.

### Subpart 3 Paint Abatement Methods

82. In requesting a public hearing, Ms. Adams and others referred to a demonstration project in which washing of window wells was done rather than the method required in the proposed rules. She stated that removal of all the paint is not needed. In her post-hearing comments, Ms. Adams suggested that the provision of Item A(2) requiring that deteriorated or deteriorating paint be "removed from" the substrate should be changed to require that the "stabilized on" on the substrate. She goes on to state that requiring total substrate or paint removal statewide would essentially require that whenever a surface is prepared for repainting, the paint must be removed in total. She called this unsafe, unnecessary, economically unreasonable and not the intent

of the legislation. The Department responded to Adams' first comment as follows:

Although the commenter does not suggest alternative language, the Commissioner takes this comment to suggest that not all paint needs to be abated. The proposed rules do not require the removal of all paint. The proposed rules require that:

- a. deteriorating paint that exceeds a standard must be abated (see part 4750.0500, subpart 3, item A);  
and
- b. intact paint that exceeds a standard must be abated if it is on a chewable or lead-producing

surface and is a source of actual lead exposure (see 4750.0500, subpart 3, item C).

The commenter seems to favor removal of loose paint but not of intact paint. Minnesota Statutes, section 144.878, subdivision 2(a) [LEAD STANDARDS AND ABATEMENT METHODS.] requires the Commissioner to differentiate between intact and deteriorating paint and to require abatement of intact paint only if that intact paint "is accessible to children as a chewable or lead-dust producing surface and is a source of actual lead exposure". Although limiting the extent of intact lead-based paint abatement, the law requires that intact lead-based paint be abated in some circumstances. The Commissioner believes the comment is inconsistent with the statutory requirement to abate intact lead-based paint under the circumstances.

The Commissioner notes that Minnesota Statutes, section 144.878, subdivision 2(a) also states that "In adopting rules under this subpart, the commissioner shall require the best available technology for abatement methods, paint stabilization and repainting the Commissioner believes that the best available technology is required by the rules as proposed.

The Department's position is not unreasonable. It believes, for reasons as stated, that deteriorated or deteriorating paint must be abated by removal from its substrate by one of the approved methods that does not promote the spread of lead-containing dust. The Department explained, in support of subpart 4H, which prohibits abatement by covering with contact paper, wallpaper of less than a certain weight or new paint, each of these materials is too readily removed from the underlying surface and thereby can allow renewed lead exposure. That statement was based upon the HUD publication, Lead-Based Paint; Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing, April 1, 1990. At page 76 of that document, there is a discussion of encapsulation, the processes that make lead paint inaccessible by covering or sealing painted surfaces. It states that a new coat of paint or primer, paper wall coverings and contact paper should never be used as encapsulants.

Ms. Adams seems to suggest that loose paint should be removed but that

deteriorating paint, that is paint that is in some state of becoming separated from its substrate, can be "stabilized" so that it does not become loose. If such a process actually works, then the Department should strongly consider adding such a provision. It would not be a substantial change to the rule because it is within the scope of the methods already allowed and merely adds another option that would be safer and less expensive. Minn. Stat. § 144.878, subd. 2(a), expressly allows the Department to adopt rules allowing paint stabilization.

It is possible to read Ms. Adams' comments to mean that only the loose paint should be removed and intact paint can be painted over. If that is what she meant, there is no difference from the proposed rules.

83. Mr. Lurie commented that residents may not have the financial responsibility for paint removal costs and therefore should not be given the discretion to determine whether additional surfaces are to be abated. Ms. Adams stated that tenants have no such right. The Department agreed that this modification is desirable and thus proposed to modify subpart 3C as follows:

Intact paint that exceeds a standard in part 4750.0300 must be abated if it is on a chewable or lead-producing surface and is a source of actual lead exposure, A property owner or resident may choose to have intact lead paint abated even if it is not on a chewable or lead-producing surface or is a source of actual lead exposure . . . .

Subpart 4 Prohibited Paint Abatement Methods.

84. As discussed above, under Item H, paint can not be abated by covering with light wallpaper. Mr. Keers commented that the word "wallpaper" was too limiting and perhaps not even the product that might be desired. He suggests that "wallcovering" be substituted for "wallpaper". The Department found this to be a reasonable clarification and proposed to modify subpart 4 as follows:

Part 4750.0500, subpart 4, item H. covering with contact paper , wallpaper- flexible wallcovering of less than 21 pounds per square yard, or new paint;

The word "flexible" was included to differentiate this material from any rigid material that might be used as a wall covering. Ms. Adams suggested that the words "or new paint" should be deleted because it was not in accord with Minn.

Stat. § 144.878, subd. 2(a). That is the statute directing the Commissioner to adopt these rules and directs the Commissioner, in adopting these rules, to consider the best available technology for abatement methods, paint stabilization, and repainting. For the reasons stated above, the Department believes that covering with new paint is not an acceptable abatement method and its position is not unreasonable. Again, however, if it can be demonstrated that stabilization of deteriorating paint can be accomplished, the Department should consider allowing it as an approved method of

abatement.

#### Subpart 5, Dust Abatement

85. This rule requires interior dust exceeding the standard to be abated by the use of a high efficiency particulate air filter vacuum and by washing with trisodium phosphate solution unless it is determined that either of these methods is unsuited to the surface to be cleaned. The use of a household vacuum cleaner instead of a high efficiency particulate air filter vacuum is prohibited, but a wet shop vacuum cleaner may be used with trisodium phosphate solution. Ms. Adams states that the best available technology is a 99.9995% efficient filtration system available for the HEPA vacuums and suggests that that should be required. She also states that the Indian Health Board study conducted with the Department found that lead dust, after window replacement,

could be cleaned with ordinary dish soap and that even plain water can be effective. She noted the danger of TSP and suggested that dish soap or an equivalent grease-cutting agent should be allowed. Again, the Department's position has been demonstrated to be reasonable, but it should seriously consider Ms. Adams' suggestions on this rule.

#### Subpart 6. Waste removal.

86. This rule requires waste to be removed daily from the work site so that no visible deposits remain. Ms. Adams points out that the PCA rules allow for on-site storage of waste and that this rule should provide the same because it is very difficult to have waste removed daily. In the SONAR, the Department stated that daily removal is needed to minimize the opportunity for the waste to be dispersed and cause lead exposure. The Department reasoned that since the waste must be cleaned anyway, it was reasonable to require that it be cleaned up promptly. Cleanup and removal from the site are two different things and it would seem more reasonable to require that cleanup be done daily while allowing waste to be stored on-site in secure containers such as five-gallon paint and taping compound buckets as Ms. Adams suggests.

87. Mr. Orth and Ms. Adams expressed concern over disposal of this potentially hazardous substance. The Department's position is that hazardous waste disposal is regulated by the PCA and no additional provisions are required on that subject in these rules.

#### Subpart 7, Final cleanup.

88. Mr. Lurie commented that a thorough cleanup should be a condition of re-occupancy and that setting a time limit is unnecessary. Also, he states that the Minneapolis Health Department requires an additional cleaning if the initial cleaning was not effective. Under these circumstances the final cleaning will occur more than seven days after the abatement. Mr. Lurie states that requiring the use of a high efficiency particulate air filter vacuum for post abatement cleaning seems inappropriate because most people do not have access to these vacuums and Minneapolis Health Department post abatement samples have shown that washing with trisodium phosphate is effective in

lowering the lead dust levels. The Department responded as follows:

The Commissioner notes that the proposed rules at Part 4750.0500 LEAD ABATEMENT METHODS, Subpart 7, already includes "Cleanup must be repeated until reassessment demonstrates compliance with the standards in part 4750.0300". Cleanup should be done as soon as possible to avoid dispersal of the lead-contaminated residue.

Regarding the requirement for a high efficiency particulate air filter vacuum, Minnesota Statutes, section 144.878, subdivision 2(a), states that: "In adopting rules under this subdivision, the commissioner shall require the best available technology for abatement methods, paint stabilization, and repainting." The Commissioner believes high efficiency particulate air filter vacuuming combined with trisodium phosphate

solution washing is currently the "best available technology" for cleanup of interior lead abatement.

Other comments.

89. Mr. Peter suggested that Part 4750.0500 have a new subpart added to authorize health departments to inspect abatement contractors' work. The Department replied that the boards of health already have the authority to inspect abatement contractors' work. Thus, no additional provision is required.

90. Mr. Prescher and Mr. Florence suggested that additional engineering controls of the work site be required. The Department replied:

The Commissioner believes the suggested changes are unnecessarily stringent since other provisions of the proposed rules (Part 4750.0500, subpart 2, "Paint abatement preparations" and subpart 3, "Paint abatement methods") are designed to minimize dust and debris generation. Although there are similarities between lead abatement and asbestos abatement - from which Mr. Prescher and Mr. Florence drew their suggestions, there are also differences between these materials including the fact that lead dust and debris does not remain airborne nearly as readily as asbestos. The Commissioner will continue to monitor the adequacy of the proposed rules to protect the health of residents and abatement workers, the need to provide further protection in the proposed rules, and the adequacy of other protection afforded by other regulations such as occupational safety and health rules.

91. Proposed Minn. Rule 4750.0500 is necessary and reasonable for the reasons given by the Department.

#### PART\_4750.0600 REASSESSMENT

92. This rule states that abatement of lead in paint and dust is considered successfully completed when reassessment demonstrates compliance with the lead standards, requires reassessment to be done by collecting certain dust samples and analyzing those samples using the methods described in the assessment rule. In its post-hearing comments, the Department noted two reference errors in this rule. In Subpart 1, the reference to "item B" should be deleted because it does not exist. In Subpart 2, the reference

should be to part 4750.0400, subpart "5", not "4". These corrections should be made.

93. Ms. Adams states that retesting should apply to water and soil as well as paint and dust, and refers to the law on retesting. Minn. Stat.

□  
144.875, subd. 6, states that after completion of the abatement as ordered, the board of health must retest the residence to assure the violations no longer exist. The reason for this omission does not appear in the record because the Department made no post-hearing comment on it. The absence of

such provisions does not affect the validity of the proposed rule, but the Department should consider adding reassessment provisions for water and soil retesting.

94. At the hearing, a contractor who does lead abatement asked that there be some provision for giving a contractor a release when the abatement is satisfactorily completed. The Department took the following position in its post-hearing comments:

The Commissioner is not sure what is meant by "release". The question may be beyond the scope of the rules and more pertinent to the terms of the contract, contract law, and other applicable laws. Minnesota Statutes, section 144.874, subdivision 6, requires a board of health to retest a residence after completion of abatement and the proposed rules set forth the retesting methods in Part 4750.0600, REASSESSMENT.

95. At the hearing, Mr. Sloan suggested that a record of lead-based paint encapsulation be incorporated with the deed to a property. The concept is a good idea; subsequent owners and remodelers should be aware that the structure contains lead-based paint that has been encapsulated. Requiring the information to be recorded with the county recorder may be one method, recording it with the authority that issues building permits may be another. Either would probably require legislative action and interested persons may wish to propose such legislation.

96. Proposed Minn. Rule 4750.0600 is necessary and reasonable for the reasons given by the Department.

#### PART 4750.0700 Abatement Contractor Duties

97. This rule requires abatement contractors to provide employees with coveralls, shoe coverings, gloves and toxic dust respirators meeting certain standards, ensure their proper use and provide for separate laundry of the work clothing and washable cleaning materials. It also prohibits eating, drinking and smoking at abatement worksites, restates the statutory requirement that abatement contractors must register with the Commissioner and requires that the registration be done prior to commencing the initial

lead abatement project.

98. At the hearing, the Administrative Law Judge questioned whether the prohibition on wearing work clothes away from the work site included taking the clothing away whether its being worn at the time or not. In its post-hearing comments, the Department proposed to modify subpart I as follows:

Part 4750.0700, subpart 1. Equipment required. An abatement contractor . . . The abatement contractor must ensure that employees properly use these items during work described in Part 4750.0500 and that employees do not wear or take these items away from the work site except as necessary for proper cleaning and storage or for proper disposal if not reusable

This change should be adopted.

99. Mr. Keers suggested that disposable clothing should be disposed of as lead-contaminated waste; that the contractors should insure that the workers are trained in the use of the respirators, that contractors have respirator protection programs, and that contractors provide for medical surveillance of the workers wearing a respirator. Mr. Sloan also questioned the adequacy of the worker protection, reusable work clothing, and waste removal provisions. The Department agreed that disposable clothing should be disposed of as lead-contaminated waste and proposed to modify subpart 1 as follows:

Part 4750.0700, subpart 1, Equipment required. An abatement contractor . . . . Reused work clothing and cleaning materials such as rags must be laundered separately from other clothing and cleaning materials. Disposable clothing and cleaning materials must be disposal of-at

This change should be adopted. The Department went on to state:

Regarding Mr. Keers' comments on respirators, the Commissioner notes that the proposed rules, at part 4750.0700, subpart 1, require that a contractor must provide an employee with a respirator and must ensure that the employee properly uses it during abatement work. The Commissioner does not believe that repeating Occupational Safety and Health (OSHA) regulations is necessary in the proposed rules. The Commissioner is not persuaded that medical surveillance for lead is necessary but will monitor the situation and will continue to seek input from affected parties. Regarding Mr. Sloan's comment on waste disposal, the contractor is responsible for arranging waste removal prior to starting work.

100. Ms. Adams suggested that the coveralls and related clothing should only be necessary if intact paint, plaster walls or woodwork are being removed. This comment follows from her previous comments that effective non-dust producing methods can be employed in many situations, thus making the suits unnecessary in those situations. She does believe that respirators provide important protection and are necessary in all instances. If the Department decides to include her suggestions regarding those abatement or

stabilization techniques, it should also consider the change she suggests here.

101. While her comment isn't entirely clear, Ms. Adams seems to state that restriction of smoking "in the yard" is unreasonable while restricting eating and drinking within the work site is appropriate. She suggests that the rules should require the provision of brushes and soap and water for hand washing as well as requiring workers to wash hands before smoking, eating and drinking. The rule prohibits eating, drinking and smoking in the work site which can be the interior sealed room or rooms in which the abatement is taking place. Restricting those activities in such a situation is clearly

appropriate to avoid ingestion of lead dust by the workers. If the work is exterior paint removal or bare soil abatement, it might well be appropriate to have lesser requirements. The matter might be resolved by adopting a definition of "work site". In any event, Ms. Adams' suggestions regarding hand washing seems to be excellent and should be incorporated by the Department.

102. Mr. Lurie suggested that the registration procedure should be omitted and replaced by one that requires training and licensure or certification because the proposed requirement does nothing to ensure that the contractor or the employees have the skills and equipment to perform the abatement, cleanup and disposal safely. Similarly, Mr. Keers suggested that abatement contractors have licensing and certification requirements similar to those of asbestos contractors and that a one percent fee be imposed on lead abatement projects to cover public costs. Registration is required by Minn. Stat. § 144.876. Licensing and certification cannot be done without specific authorization from the Legislature.

103. Proposed Minn. Rule 4750.0700 is necessary and reasonable for the reasons given by the Department.

#### PART 4750.,0800 VARIANCES

104. This rule states that variances may be granted under the procedures and criteria as specified in Minn. Rule 4717.7000 to 4717.7050, which was in the process of being modified at the time of the hearing in this matter. Those rules provide for variances from rules enforced by the Environmental Health Division. Reference to them is a reasonable method of establishing the required variance procedures. The Department replied to a suggestion that the rule be modified to allow the local boards of health to grant variances under delegation agreements from the Commission by stating that such power already exists under Minn. Stat. §§ 145A.01 to 145A.14.

Based upon the foregoing Findings of Fact, the Administrative Law Judge makes the following:

## CONCLUSIONS

1. The Department gave proper notice of the hearing in this matter.
2. The Department has fulfilled the procedural requirements of Minn. Stat. §§ 14.14, and all other procedural requirements of law and rule.
3. The Department has documented its statutory authority to adopt the proposed rules and has fulfilled all other substantive requirements of law and rule within the meaning of Minn. Stat. §§ 14.05, subd. 1, 14.15, subd. 3 and 14.50 (i) and (ii).
4. The Department has demonstrated the need for and reasonableness of the proposed rules as modified by the Department by an affirmative presentation of facts in the record within the meaning of Minn. Stat. §§ 14.14, subd. 2 and 14.50 (iii).

5. Any findings that might properly be termed conclusions and any conclusions which might properly be termed findings are hereby adopted as such

6. The foregoing conclusions do not preclude and should not discourage the Department from further modification of the rules based upon an examination of the public comments and suggestions contained herein, provided that no substantial change is made from the proposed rules as originally published, and provided that the rule finally adopted is based upon facts appearing in the rulehearing record. None of the changes suggested herein would constitute a substantial change.

Based upon the foregoing Conclusions, the Administrative Law Judge makes the following:

RECOMMENDATION

It is hereby recommended that the Department adopt the rules as proposed with the modifications and suggested changes recommended in the Findings.

Dated this 21st  
day of February, 1991.

STEVE M. MIHALCHICK  
Administrative Law Judge