

1996 SUNRISE REVIEW

Lead Inspection, Assessment, and Abatement Professionals



Submitted by the
Colorado Department of
Regulatory Agencies
Office of Policy & Research

STATE OF COLORADO

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Roy Romer
Governor

October 15, 1996

Members of the General Assembly
c/o Doug Brown, Director
Office of Legislative Legal Services
State Capitol Building
Denver, Colorado 80203

Dear Members of the Colorado General Assembly:

We have completed our evaluation of the sunrise application for licensure of lead inspection, assessment, and abatement professionals and are pleased to submit this written report. The report is submitted pursuant to section 24-34-104.1, Colorado Revised Statutes, 1988 Repl. Vol., (the "Sunrise Act") which provides that the Department of Regulatory Agencies shall conduct an analysis and evaluation of proposed regulation to determine whether the public needs, and would benefit from, the regulation.

The report discusses the question of whether there is a need for the regulation in order to protect the public from potential harm, whether regulation would serve to mitigate the potential harm and, whether the public can be adequately protected by other means in a more cost-effective manner.

Sincerely,

Joseph A. Garcia
Executive Director

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INTRODUCTION

The Colorado Department of Public Health and Environment (CDPHE), herein referred to as the "Department", has requested the Department of Regulatory Agencies (DORA) to evaluate the merits of a lead abatement program in Colorado. Regulation of lead in the environment has become an objective of the federal government over the past several years. In August 1996, the Environmental Protection Agency (EPA) promulgated regulations concerning the implementation of lead abatement and reduction programs. States have until 1998 to adopt a program that is "as protective of human health and environment as" the federal government's program. By 1998, states will be required to comply with these regulations. The regulations require that states adopt programs with federal assistance that comply with the regulations, or the federal government will operate the program itself in the state.

In 1993, the Department submitted a sunrise application to DORA proposing to create a lead abatement program in Colorado as a proactive response to EPA's inevitable promulgation of regulations in this area under Title X of the Housing and Community Development Act of 1992 (P.L. 102-550). At that time the proposed program's application covered target housing, public and commercial buildings, bridges, and superstructures. The Department's sunrise application was placed on hold until EPA actually promulgated regulations. On August 29, 1996, the EPA promulgated regulations. This resulted in restricting the actual scope of the original Department's application. As a result of EPA's actions, the Department's sunrise application was resubmitted and amended to address only the EPA promulgated regulations which related to target housing¹ and child-occupied facilities.²

¹ "Target Housing" is defined as "any housing constructed prior to 1978, except housing for the elderly or persons with disabilities (unless any one or more children age 6 years or younger resides or is expected to reside in such housing for the elderly or persons with disabilities) or any 0-bedroom dwelling" 40 C.F.R. § 745.223(4)

² "Child-occupied facilities" is defined as "a building or portion of a building, constructed prior to 1978, visited by any child 6 or younger, on at least two different days within any week (Sun.-Sat.) provided that each day's visit lasts at least 6 hours, and the combined annual visits last at least 60 hours." 40 C.F.R. 745.223(4),

The Department seeks to create and implement a lead abatement regulatory program in Colorado. The major part of the program involves educating and certifying lead inspection, assessment, and abatement practitioners, as well as permitting and inspecting projects. The Department holds that lead poisoning is a serious health hazard and its proper control and abatement is important to the public health and welfare of the citizens of Colorado. DORA has, therefore, investigated the Health Department's resubmitted sunrise application. The primary criteria assessed are as follows:

1. Is there a public health risk that should be addressed in Colorado?
2. Could the public benefit from the program proposed to address that risk?
3. Could the public be protected by other means in a more cost-effective manner?

DORA interviewed several members of the Department staff who are knowledgeable about lead contamination. Staff of EPA were also interviewed, since the federal government is creating a model state program for lead abatement. The manager of the lead abatement program of the Denver Housing Authority was also interviewed with regard to the current abatement activity in Denver and projections about lead contamination.

BACKGROUND DISCUSSION

The Department currently operates a certification and permitting program for contractors engaged in asbestos abatement. The circumstances of asbestos regulation arose in much the same way as lead abatement. Society became aware of a health problem over time, and the government decided at a later date to address it. Due to lag time in state governmental oversight, however, businesses and individuals were placed in jeopardy because the public wished to proceed to abate asbestos but there were no controls on who could engage in that activity. Consequently, people may have been exposed or contaminated due to improper removal, health risks were created by unknowledgeable contractors who did not use the appropriate precautions in dealing with the asbestos, fraud may have been perpetrated when dishonest contractors convinced homeowners that he/she needed to do unnecessary work, and business revenue was lost when contractors engaged in ineffective techniques requiring more time to complete an abatement project or correct an improper one.

In order to avoid similar problems with lead abatement, the Department wishes to begin a lead abatement program as soon as possible. The federal government has been charged to regulate lead assessment, inspection and abatement procedures, and desires that all states have a program in place by 1998. The federal government has implemented public education and disclosure programs, and as people become knowledgeable about the problem of lead, they will seek ways to cure it. The Department predicts that many of the contractors that were eventually certified for asbestos removal will now seek to enter the lead abatement business. It is their belief that the best way to prevent public harm during lead abatement activities is to certify individuals and contractors up front, after their training and prior to a concerted public demand for services.

The Department represents that it most likely will be able to administer this program with a modest increase in staff and operating budget. The reason for this is because the two programs would be similar in processes (certification of training programs, providers, and contractors are involved in both), so the programs could share resources and infrastructure.

REGULATORY DISCUSSION

The federal government has countered the problems with lead through federal and state programs. Several different federal agencies regulate lead exposure and contamination levels including Housing and Urban Development, Environmental Protection Agency, Centers for Disease Control and Prevention, Department of Labor, Occupational, Safety and Health Administration, and National Institute of Science and Health. Lead contamination in pesticides, public drinking water systems, gasoline, and paint has been successfully addressed.³ Now EPA is creating regulations that will require states to assess the health impacts of lead exposure, measure contamination, develop abatement technology, and set standards for abatement contractors. All of these activities are derived from Title X of the Housing and Community Development Act of 1992 (P.L. 102-550), commonly known as the "Residential Lead-Based Paint Hazard Reduction Act of 1992." Under Section 1018 of this law, Congress charged the EPA and HUD to require disclosure of information on lead-based paint and lead-based paint hazards before the sale or lease of most housing built before 1978. This rule would ensure that purchasers and renters of housing built before 1978 receive the information necessary to protect themselves and their families from lead-based paint hazards.

This past March, HUD and EPA promulgated lead disclosure regulations for apartments, condominiums, and single-family housing. These requirements took effect on September 6, 1996 for owners of more than four dwelling units and takes effect on December 6, 1996 for owners of four or fewer dwelling units. The regulations require the following:

- Sellers and lessors of most residential housing built before 1978 must disclose the presence of known lead-based paint and/or lead-based paint hazards in the housing.
- Sellers and lessors must provide purchasers and lessees with any available records or reports pertaining to the presence of lead-based paint and/or lead-based paint hazards.
- Sellers and lessors must provide purchasers and lessees with a federally approved lead hazard information pamphlet.

³ "The Emerging Lead (Pb) Program," Outline of U.S. activities and plans, Environmental Protection Agency, Vern Dander, 1992.

- Sellers must provide purchasers with a 10-day opportunity to conduct a risk assessment or inspection for the presence of lead-based paint and/or lead-based paint hazards before the purchaser is obligated under any purchase contract.
- Sales and leasing contracts must include certain disclosure and acknowledgment language.
- Real estate agents must ensure compliance with these requirements.

The focus of the act is on two types of activity: evaluating hazards (risk assessment or inspection) and reducing hazards (abatement). It is expected that the 1018 rule will increase the awareness of lead-based paint hazards and subsequently will result in the demand for individuals to conduct lead inspections, lead risk assessments, and lead abatement. In order to ensure that the public is protected with qualified and knowledgeable individuals to perform these activities, Congress required a training and certification program under Title 4 of the Toxic Substances Control Act (TSCA) as well as an implied abatement and inspection program.⁴ On August 29, 1996, EPA promulgated two regulations pursuant to §402 and §404 of TSCA for the accreditation and certification of individuals conducting lead based paint activities in target housing and child-occupied facilities, as well as the opportunity for states to run these programs. These two regulations form the basis of CDPHE's sunrise application.

States have been encouraged to request authorization to form their own programs within the federal parameters. Title X requires that any program be cash-funded. Consequently, any program, whether operated by the EPA or the state, will be funded by fees collected from the regulated community. Additionally Title X requires that state programs be "as protective of human health and environmental as" the federal program. This language is more flexible than other older federally mandated programs which required that state programs be "as stringent as" the federal program. This "as protective as" language is result oriented and subsequently allows the Department more flexibility to design a program that is responsive to the needs of Colorado.

⁴ §402 of TSCA identifies the professional workforce and §404 creates the state program approval process.

Both the EPA and HUD will offer grants to the states to assist in beginning such programs, in addition to providing grants to train and educate workers/supervisors engaged in lead reduction activities.⁵ States who implement a program will receive funding for the next year after which additional funding will be determined by Congress. States are expected to operate the program on a cash-funded basis. Finally, states will be authorized to engage in fee collection to support the program in lieu of the federal agencies collecting fees for the regulatory activity.⁶

In addition to the certification and training program, states are encouraged to develop permit and inspection programs for lead abatement projects. Based on federal requirements for implementing state programs and federal regulations and guidance documents, it appears that states will be required to permit and inspect abatement projects or the federal government will assume this role.

States have until August 31, 1998 to develop a program and submit their proposal to the EPA for approval. States that do not meet this deadline will lose their opportunity and the EPA will run the training and certification program. All independent training facilities for lead inspection, assessment, and abatement professionals in states that do not have an approved program must be accredited by the EPA by March 1999. Any lead professional in a non-approved state must be EPA certified by August 30, 1999. States that implement a lead program could regulate training facilities and professionals at an earlier date.

The Department seeks to set up a state program, using the model standards developed by the EPA. The Department already has an infrastructure to deal with training and certification of individuals in the asbestos field and permitting and inspection of asbestos projects. The staff is already familiar with this type of structure. The Department, therefore, believes the lead program would not have to be created from scratch. The Department believes delay in regulating lead abatement could be harmful to the public. This is because incidents arose during asbestos abatement where individuals were removing asbestos from buildings without adequate knowledge, equipment and experience, thus jeopardizing their own health and the health of others. The Department of Health wishes to avoid similar experiences with the lead abatement program. Additionally, an early certification program could prevent fraud where unknowledgeable contractors attempt to abate lead unnecessarily.

⁵"The Emerging Lead (Pb) Program," Note 3.

⁶"The Emerging Lead (Pb) Program," Note 3.

POTENTIAL HARM

Assessing the harm from lead exposure is difficult to measure. It is important to understand the nature of the sources of lead exposure and the outcome of such exposure in order to assess the seriousness of the public health risk from lead exposure.

A. Health effects of lead exposure

Most lead poisoning results from ingestion of lead or inhalation of lead dust. Adults are most often exposed in the work place or when redecorating an older home.⁷ Children tend to be exposed in the home or nearby yard.⁸ Lead, when absorbed, enters the blood stream and migrates both into soft body tissues, including the liver, brain and bone marrow, and hard tissues such as bones and teeth.⁹ Although lead only stays in blood 60 to 90 days, residual amounts accumulate in the body over a lifetime and affect various body systems.¹⁰ Fetuses and young children (those under the age of six) suffer the greatest damage from lead exposure.¹¹ Children can suffer from sluggishness, attention span deficits, impaired hearing, reading and learning disabilities, delayed cognitive development, reduced IQ scores, mental retardation, seizures, convulsions, and even coma and death should the exposure be great.¹² Adults who are exposed can suffer from hypertension, infertility, damage to the nervous system (from reductions in grip strength and eye-hand coordination to convulsions, intellectual and behavioral impairment, and even death), and anemia.¹³

⁷ "The Emerging Lead (Pb) Program," Note 3.

⁸ "The Emerging Lead (Pb) Program," Note 3.

⁹ "Lead Poisoning and Children," Brochure developed for the Minnesota Department of Health by Freshwater Foundation's Health and Environmental Digest, First Edition, 1991.

¹⁰ "Regulatory Framework for Lead Abatement," Speech presented by Susan G. Rosmarin, Esq., of Thetee, Marrin, Johnson, and Bridges, presented at the Environmental Informational Association Conference, 1992.

¹¹ "Lead Poisoning and Children," Note 9.

¹² "Regulatory Framework for Lead Abatement," Note 10.

¹³ "Lead Poisoning and Children," Note 9.

The United States Center for Disease Control and Prevention (CDC) has recognized over the last 40 years that even very low levels of lead in a person's blood can result in adverse health effects such as those previously listed.¹⁴ The amount of blood lead that the Center for Disease Control and Prevention currently recommends as the actionable level for children is 10 micrograms per deciliter. All that is required to attain this lead poison level in children are a few thumbnail size chips of paint or the dust from sanding or scraping old paint from a wooden surface.¹⁵

B. Sources of lead exposure

Lead is found naturally in our environment and is the most abundant heavy metal on earth.¹⁶ Its toxicity has been recognized for hundreds of years, as early as the Greek and Roman societies.¹⁷ Lead has been a useful component of many modern products, such as paint, ceramic glazes, gasoline, plumbing and solder.¹⁸ The problem arises when lead is ingested or inhaled.

The primary source of lead contamination in our country is lead paint. Lead in paint was predominantly banned in 1978, due to the federal government's recognition of the harmful effects of lead exposure. Housing built prior to that time probably contains significant levels of lead paint.¹⁹ Paint sold before 1977 may contain up to 20 to 30 percent lead.²⁰ It is estimated that six billion pounds of lead are found on houses nationwide.²¹ This paint was used to paint the inside and outside of houses, decks, furniture, toys, etc. Deteriorating lead paint is usually the primary source of lead poisoning in children.²² As the paint ages it sheds lead dust and chips, inside the house and in the soil surrounding the house outside.²³ Lead in this form is then ingested in normal hand to mouth activity. Household remodeling is another way in which lead

¹⁴"Regulatory Framework for Lead Abatement," Note 10.

¹⁵"Childhood Lead Poisoning Prevention," Department of Health Services, Health and Welfare Agency, State of California, 1991; "Lead in Paint," California Department of Health Services, 1991.

¹⁶"Lead Fact Sheet," Published by the Environmental Protection Agency, Informational Materials for the Public, 1992.

¹⁷"Regulatory Framework for Lead Abatement," Note 10.

¹⁸"Lead Fact Sheet," Note 16.

¹⁹"Childhood Lead Poisoning Prevention," Note 15.

²⁰"Lead Fact Sheet," Note 16.

²¹"Childhood Lead Poisoning Prevention," Note 15.

²²"Lead Poisoning and Children," Note 9.

²³"Lead Poisoning and Children," Note 9.

levels in the house can reach dangerous proportions. Disturbing lead paint that has not deteriorated from such places as woodwork, doors and floors will create the same or greater risks of ingestion as chipping paint.²⁴ Finally, some mini-blinds contain lead paint which results in accumulated lead dust between the blinds that eventually falls to the floor.

Lead also can be a problem in soil and water. Soil becomes contaminated from vehicle exhaust, industrial emissions, bridge renovations and housing paint deterioration.²⁵ Lead emitted in the air and deposited on soil remains indefinitely, and children ingest it when playing outside.²⁶ Although non-lead gas has reduced lead emissions from that source in the last decade, contamination that was created previously continues to exist.²⁷ Plumbing installed before 1940 is likely to contain lead, so drinking water in older homes may be contaminated.²⁸ In newer homes, lead can leach from solder for about five years after installation, so it can still cause a problem.²⁹ Even brass faucets contain three to five percent lead.³⁰

C. Scope of the Problem

Because lead is found throughout our environment and has existed throughout time, it has not been possible to quantify the scope of this problem. Various states have created estimates of the numbers of people who have been affected by lead ingestion and/or toxicity. A 1988 Report to Congress by the Agency for Toxic Substances and Disease Registry estimates that each year in the U.S., an estimated three to four million children under age six have blood lead levels over 15 micrograms per deciliter, and approximately 400,000 fetuses are exposed to lead contamination at levels that can stymie their mental development.³¹ It is estimated that almost two thirds of all homes in the U.S. have some lead based paint.³² Relying on full abatement and complete lead paint removal is an inefficient and unworkable approach.

²⁴ "Lead Poisoning and Children," Note 9, "Lead in Paint," Note 15.

²⁵ "Childhood Lead Poisoning Prevention," Note 15.

²⁶ "Childhood Lead Poisoning Prevention," Note 15.

²⁷ "Lead Poisoning and Children," Note 9.

²⁸ "Lead Poisoning and Children," Note 9.

²⁹ "Lead Poisoning and Children," Note 9.

³⁰ "Lead Poisoning and Children," Note 9.

³¹ "Lead Poisoning and Children," Note 9.

³² *Resource Handbook On Lead Hazard Disclosure for Homes and Apartments*, Alliance to End Childhood Lead Poisoning, (1995) p. A-5.

Since 1988, the Colorado Department of Public Health and Environment has required reporting of blood lead levels. In 1993, CDPHE received funding from the Center for Disease Control that enabled it to collect data on laboratory blood lead tests performed on all children tested throughout Colorado. Through these surveillance efforts, the CDPHE reports that a little more than 3% of the children in Colorado tested have elevated blood lead levels. Responding to the theory that there may be pockets of children in Colorado who have higher blood lead levels than reported in the surveillance, CDPHE conducted a survey from June through September 1995 of blood lead levels among children living in north central Denver. Data collected from this survey revealed that 16.2% of children tested had blood lead levels greater than 10ug/dL. The proportion of children with elevated levels was five times the overall rate (3.2%) for Denver County calculated in the 1994 surveillance reports as well as the overall state level. This suggests that there exists pockets of childhood lead poisoning in the City of Denver.

Since 1992, the Denver Housing Authority has been involved in a lead abatement project required by the U.S. Department of Housing and Urban Development (HUD) for those homes HUD subsidizes. Approximately 7,000 units are targeted to be abated. However, this number does not relate to an estimate of the overall numbers needing abatement, but relates to the number of HUD rentals in the Denver area. Denver authorities validated that the lead problem was most severe for Denver homes built before 1965, especially on the woodwork, trim and eaves of the homes.

CONCLUSION

Of the preventable health problems in our country, lead poisoning is one of the most serious. A large number of Colorado homes were built before 1977, and a number of those homes contain children under age 10 or may undergo renovation. Other sources of lead exposure (such as water pipes, soil, gasoline, industrial emissions) add to this total in Colorado. It is uncontroverted that lead exposure and/or lead poisoning are serious medical problems that threaten the health and welfare of the exposed persons. It is also uncontroverted that lead poisoning is a preventable condition that could be decreased or avoided by proper public health education and lead inspection and abatement.

The federal government is supporting states to take positive actions to regulate lead inspection and abatement. The essential question is whether the state should operate the program or whether the federal government should run the state's program.

Citizens, businesses, and industry gain something from state operation of the program. First, the state would receive technical assistance from the EPA in implementing the program. EPA would educate state health staff to the issues and problems involved in lead reduction. This would allow for a more thorough and appropriate public health response to lead incidents and crises. Should problems occur in Colorado, the ability to respond effectively on the local level would better protect the health of Coloradans than a deferment to federal response or decision making.

Further, if the state regulates the program, state rule making would occur as well. This allows for input from geographically dispersed populations in Colorado, and also allows the Department to consider local geographic and economic concerns in determining final rules, whereas the federal rules will be generic and finalized prior to program start up. Turning implementation over to the EPA in these circumstances would most likely not benefit the people of Colorado, but would supply a pretense of protection without real substance so that consumer expectations would be raised but satisfaction would be lacking.

Finally, the state has received grant money from the federal government to implement the program. Additional money is available to augment the cost of the program but only if Colorado implements a program. If the program is sufficiently similar to the asbestos program, the state should be able to operate it, utilizing its current infrastructure to support the program as well as the fees generated by the certification and permitting segment.

Pursuant to the above, DORA finds and recommends as follows:

1. There is a public health need to address lead poisoning and the risk of exposure in Colorado and the federal government is going to require a program to do so in the next two years.
2. The Colorado Department of Public Health and Environment is the appropriate agency to address this issue and could initiate such a program with a minimum of effort and funds.
3. State control and the federal directive that a state program must be "as protective as" the federal program give Colorado more flexibility to design and implement a lead certification and training that is more result oriented and tailored to the needs of Coloradans.
4. The public could benefit from a lead reduction program run by the Colorado Department of Health.
5. The public could be protected by a program run by the Environmental Protection Agency. Since the CDPHE believes that expenses for this program would involve a modest increase in FTE and expenses, and in stationary sources program costs, it is to the state's advantage to maintain control over the program.
6. There will be less delay in implementing a program on the state level than on the federal level. This will provide maximum protection to Coloradans.
7. By federal law the program will be cash-funded regardless of whether the EPA or the state run the program. Cost therefore will be born only by the professional who wishes to be certified.

APPENDICES

Sunrise Statutory Evaluation Criteria

Pursuant to the Colorado Sunrise Act, §24-34-104.1, C.R.S., the determination of the need for new regulation shall be based upon the following criteria:

1. Whether the unregulated practice of the occupation or profession clearly harms or endangers the health, safety or welfare of the public, and whether the potential for harm is easily recognizable and not remote or dependent on tenuous argument;
2. Whether the public needs, and can be reasonably expected to benefit from, an assurance of initial and continuing professional or occupational competence; and
3. Whether the public can be adequately protected by other means in a more cost-effective manner.

Footnotes/Bibliography

- 1 "Lead Fact Sheet," published by the Environmental Protection Agency, informational materials for the public, 1992.
- 2 "Lead Poisoning and Children," Brochure developed for the Minnesota Department of Health by Freshwater Foundation's Health and Environmental Digest, First Edition, 1991.
- 3 "Childhood Lead Poisoning Prevention," Department of Health Services, Health and Welfare Agency, State of California, 1991.
- 4 "Lead in Paint," California Department of Health Services, 1991.
- 5 "Regulatory Framework for Lead Abatement," Speech presented by Susan G. Rosmarin, Esq., of Thetia, Marrin, Johnson and Bridges, presented at the Environmental Informational Association Conference, 1992.
- 6 "The Emerging Lead (Pb) Program," Outline of U.S. activities and plans, Environmental Protection Agency, Vern Dander 1992.
- 7 "Understanding Title X: A Practice guide to the Residential Lead-Based Paint Hazard Reduction Act of 1992," Alliance to End Childhood Lead Poisoning, 600 Pennsylvania Ave. S.E., Washington D.C., 20003, 1993.
- 8 "Key Household Lead (Pb) Exposure Limits," published by the Environmental Protection Agency, informational materials for public use, 1992.