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Part II

Environmental Protection Agency

40 CFR Part 745

**Lead; Renovation, Repair, and Painting
Program; Proposed Rule**

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 745

[EPA-HQ-OPPT-2005-0049; FRL-7755-5]

RIN 2070-AC83

Lead; Renovation, Repair, and Painting Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing new requirements to reduce exposure to lead hazards created by renovation, repair, and painting activities that disturb lead-based paint. This action supports the attainment of the Federal government's goal of eliminating childhood lead poisoning by 2010. The proposal would establish requirements for training renovators and dust sampling technicians; certifying renovators, dust sampling technicians, and renovation firms; accrediting providers of renovation and dust sampling technician training; and for renovation work practices. These requirements would apply in "target housing," defined in section 401 of the Toxic Substances Control Act (TSCA) as any housing constructed before 1978, except housing for the elderly or persons with disabilities (unless any child under age 6 resides or is expected to reside in such housing) or any 0-bedroom dwelling. Initially the rule would apply to all renovations for compensation performed in target housing where a child with an increased blood lead level resides, rental target housing built before 1960 and owner-occupied target housing built before 1960, unless, with respect to owner-occupied target housing, the person performing the renovation obtains a statement signed by the owner-occupant that the renovation will occur in the owner's residence and that no child under age 6 resides there. EPA is proposing to phase in the applicability of this proposal to all rental target housing and owner-occupied target housing built in the years 1960 through 1977 where a child under age 6 resides. This proposal is issued under the authority of TSCA section 402(c)(3). EPA is also proposing to allow interested States, Territories, and Indian Tribes the opportunity to apply for and receive authorization to administer and enforce all of the elements of the new renovation provisions.

DATES: Comments must be received on or before April 10, 2006. Under the Paperwork Reduction Act, comments on

the information collection provisions must be received by OMB on or before February 9, 2006.

ADDRESSES: Submit your comments, identified by Docket ID number EPA-HQ-OPPT-2005-0049, by one of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov/>. Follow the on-line instructions for submitting comments.

- *Mail:* Document Control Office (7407M), Office of Pollution Prevention and Toxics (OPPT), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001. In addition, please mail a copy of your comments on the information collection provisions to the Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Attn: Desk Officer for EPA, 725 17th St., NW., Washington, DC 20503.

- *Hand Delivery:* OPPT Document Control Office (DCO), EPA East Bldg., Rm. 6428, 1201 Constitution Ave., NW., Washington, DC. Attention: Docket ID number EPA-HQ-OPPT-2005-0049. The DCO is open from 8 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The telephone number for the DCO is (202) 564-8930. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to docket ID number EPA-HQ-OPPT-2005-0049. EPA's policy is that all comments received will be included in the public docket without change and may be made available in the on-line docket at <http://www.regulations.gov/>, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through [regulations.gov](http://www.regulations.gov/), or e-mail. The [regulations.gov](http://www.regulations.gov/) website is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through [regulations.gov](http://www.regulations.gov/), your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any

disk or CD ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the docket index at <http://www.regulations.gov/>. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in the online docket at <http://www.regulations.gov/> or in hard copy at the OPPT Docket, EPA Docket Center, EPA West, Rm. B102, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The EPA Docket Center Reading Room telephone number is (202) 566-1744, and the telephone number for the OPPT Docket, which is located in the EPA Docket Center, is (202) 566-0280.

FOR FURTHER INFORMATION CONTACT: *For general information contact:* Colby Lintner, Regulatory Coordinator, Environmental Assistance Division (7408M), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001; telephone number: (202) 554-1404; e-mail address: TSCA-Hotline@epa.gov.

For technical information contact: Mike Wilson, National Program Chemicals Division (7404T), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001; telephone number: (202) 566-0521; e-mail address: wilson.mike@epa.gov.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this Action Apply to Me?

You may be potentially affected by this action if you perform renovations of target housing for compensation or dust sampling. Target housing is defined in section 401 of TSCA as any housing constructed prior to 1978, except housing for the elderly or persons with disabilities (unless any child under age 6 resides or is expected to reside in such housing) or any 0-bedroom dwelling.

Potentially affected entities may include, but are not limited to:

- Building construction (NAICS 236), e.g., single family housing construction, multi-family housing construction, residential remodelers.

- Specialty trade contractors (NAICS 238), e.g., plumbing, heating, and air-conditioning contractors, painting and wall covering contractors, electrical contractors, finish carpentry contractors, drywall and insulation contractors, siding contractors, tile and terrazzo contractors, glass and glazing contractors.

- Real estate (NAICS 531), e.g., lessors of residential buildings and dwellings, residential property managers.

- Other technical and trade schools (NAICS 611519), e.g., training providers.

- Engineering services (NAICS 541330) and building inspection services (NAICS 541350), e.g., dust sampling technicians.

This listing is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. Other types of entities not listed in this unit could also be affected. The North American Industrial Classification System (NAICS) codes have been provided to assist you and others in determining whether this action might apply to certain entities. To determine whether you or your business may be affected by this action, you should carefully examine the applicability provisions in § 745.82 of the proposed rule. If you have any questions regarding the applicability of this action to a particular entity, consult the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

B. What Should I Consider as I Prepare My Comments for EPA?

1. *Submitting CBI.* Do not submit this information to EPA through EDOCKET, regulations.gov, or e-mail. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD ROM that you mail to EPA, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. *Tips for preparing your comments.* When submitting comments, remember to:

- Identify the rulemaking by docket ID number and other identifying information (subject heading, **Federal Register** date, and page number).

- Follow directions. The Agency may ask you to respond to specific questions or organize comments by referencing a Code of Federal Regulations (CFR) part or section number.

- Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.

- Describe any assumptions and provide any technical information and/or data that you used.

- If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.

- Provide specific examples to illustrate your concerns, and suggest alternatives.

- Explain your views as clearly as possible, avoiding the use of profanity, obscene language, or personal threats.

- Make sure to submit your comments by the comment period deadline.

II. Background

A. What Action is the Agency Taking?

EPA is proposing new requirements to reduce the exposure to lead hazards created by renovation, repair, and painting activities that disturb lead-based paint. This action supports the attainment of the Federal government's goal of eliminating childhood lead poisoning by 2010. The proposal would establish requirements for training renovators and dust sampling technicians; certifying renovators, dust sampling technicians, and renovation firms; accrediting providers of renovation and dust sampling technician training; and renovation work practices. These requirements would apply in "target housing," defined in TSCA section 401 as any housing constructed before 1978, except housing for the elderly or persons with disabilities (unless any child under age 6 resides or is expected to reside in such housing) or any 0-bedroom dwelling. Initially the rule would apply to all renovations for compensation performed in target housing where a child with an increased blood lead level resides; rental target housing built before 1960; and owner-occupied target housing built before 1960, unless the person performing the renovation obtains a statement signed by the owner-occupant that the renovation will occur in the owner's residence and that

no child under age 6 resides there. EPA is proposing to phase in the applicability of this proposal to all rental target housing and owner-occupied target housing built in the years 1960 through 1977 where a child under age 6 resides. This proposal is issued under the authority of TSCA section 402(c)(3). EPA is also proposing to allow interested States, Territories, and Indian Tribes the opportunity to apply for, and receive authorization to, administer and enforce all of the elements of the new renovation provisions.

EPA is planning to incorporate the training, certification, and accreditation requirements in this proposal, along with the proposed work practice standards for renovations, into 40 CFR part 745, subpart E. Subpart E currently contains the Pre-Renovation Education Rule requirements. As discussed in Unit IV.B., the requirements in this proposal would apply to renovations currently regulated by the Pre-Renovation Education Rule. As a result, 40 CFR part 745, subpart E would be a logical place to codify these requirements. In order to do so, EPA is proposing to remove some existing sections from this subpart and replace them with new sections.

EPA is proposing to delete 40 CFR 745.84 because it is duplicative. This section provides some details on submitting CBI and how EPA will handle that information. However, comprehensive regulations governing sensitive business information, including CBI under TSCA, are codified in 40 CFR part 2. The regulations in 40 CFR part 2 set forth the procedures for making a claim of confidentiality and describe the rules governing EPA's release of information. Therefore, 40 CFR 745.84 is superfluous. EPA is proposing to delete this section and redesignate existing § 745.85 as § 745.84. EPA is also proposing to amend newly designated § 745.84 so as to place the responsibility for carrying out the information distribution requirements on the firm conducting the renovation rather than the certified renovator.

EPA is also proposing to delete 40 CFR 745.88. This section provides sample pamphlet acknowledgment statements and sample attempted delivery certification statements. These statements may, but are not required to, be used by renovators for the purpose of complying with the recordkeeping requirements of the Pre-Renovation Education Rule. EPA is making available in the docket and on its Web page new sample statements to assist renovation firms in complying with the Pre-Renovation Education Rule as well

as the provisions of this proposal (Ref. 1). More information on the recordkeeping requirements of this proposal can be found in Units III.B. through III.D.

B. What is the Agency's Authority for Taking this Action?

These training, certification and accreditation requirements and work practice standards are being proposed pursuant to the authority of TSCA section 402(c)(3), 15 U.S.C. 2682(c)(3), as amended by Title X of the Housing and Community Development Act of 1992, Public Law 102-550 (also known as the Residential Lead-Based Paint Hazard Reduction Act of 1992) ("the Act" or "Title X") (Ref. 2). The Model State Program and amendments to the regulations on the authorization of State and Tribal programs with respect to renovators and dust sampling technicians are being proposed pursuant to section 404 of TSCA, 15 U.S.C. 2684.

III. Introduction

A. Information on Lead, Health Effects, and History

Lead is a soft, bluish metallic element mined from rock and found in its natural state all over the world. Lead is virtually indestructible, is persistent, and has been known since antiquity for its adaptability in making various useful items. In modern times, it has been used to manufacture many different products, including paint, batteries, pipes, solder, pottery, and gasoline. Through the 1940's, paint manufacturers frequently used lead as a primary ingredient in many oil-based interior and exterior house paints. Usage gradually decreased through the 1950's and 1960's as titanium dioxide replaced lead and as latex paints became more widely available.

According to the Centers for Disease Control, there is no known safe blood lead level (Ref. 3). Health effects associated with exposure to lead and lead compounds include, but are not limited to, neurotoxicity, developmental delays, hypertension, impaired hearing acuity, impaired hemoglobin synthesis, and male reproductive impairment (Refs. 3 and 4). Lead bioaccumulates, and it is difficult to remove from blood and bones. Lead exposure in young children is of particular concern because children absorb lead more readily than adults (Refs. 3 and 4). Children have a higher risk of exposure because of their more frequent hand-to-mouth behavior (Ref. 3). Low levels of lead in a child's bloodstream can interfere with growth and cause cognitive impairment, permanent

hearing and visual impairment, and other damage to the brain and nervous system (Refs. 3 and 4). The effects of long-term lead exposure or poisoning in children are well-documented: Higher school failure rates and reductions in lifetime earnings due to permanent loss of intelligence and increased social pathologies (Ref. 3).

In large doses, lead can cause blindness, brain damage, convulsions, and even death. Lead exposure before or during pregnancy can affect fetal development and cause miscarriages, as lead can pass from a pregnant woman's bloodstream to the developing child. There is also some indication that lead exposure contributes to high blood pressure and reproductive and memory problems in adults (Ref. 5). According to EPA's Integrated Risk Information System (IRIS), by comparison to most other environmental toxicants, the degree of uncertainty about the health effects of lead is quite low and it appears that some effects, particularly changes in the levels of certain blood enzymes as well as changes in aspects of children's neurobehavioral development, may occur at blood levels so low as to be essentially without a threshold (Ref. 6).

Paint that contains lead can pose a health threat through various routes of exposure. House dust is the most common exposure pathway through which children are exposed to lead paint hazards. Dust created during normal lead-based paint wear (especially around windows and doors) can create an invisible film over surfaces in a house. Children, particularly younger children, may also ingest lead-based paint chips from flaking walls, windows, and doors. Lead from exterior house paint can flake off or leach into the soil around the outside of a home, contaminating children's play areas. Cleaning and renovation activities may actually increase the threat of lead-based paint exposure by dispersing lead dust particles in the air and over accessible household surfaces. In turn, both adults and children can receive hazardous exposures by inhaling the dust or by ingesting paint-dust during hand-to-mouth activities.

In the last 3 decades of the 20th century, various agencies of the Federal government took independent actions to address lead exposure. In 1978, the Consumer Product Safety Commission (CPSC) banned the use of paint containing more than 0.06% lead by weight on toys, furniture, and interior and exterior surfaces in housing and other buildings and structures used by consumers (Ref. 7). Also in 1978, the Occupational Safety and Health

Administration (OSHA) issued regulations to protect general industry workers from lead exposure (Ref. 8). OSHA issued regulations in 1993 to protect construction workers, including abatement workers, from lead exposure (Ref. 9). In 1973, EPA issued regulations designed to gradually reduce the amount of lead in leaded gasoline (Ref. 10). EPA lowered the maximum levels of lead permitted in public water systems in 1991 (Ref. 11). The Centers for Disease Control and Prevention (CDC) set and lowered blood lead "levels of concern" several times, as new studies showed the impact of lead levels on children's health (Ref. 12). (The level of concern is the level where medical and environmental case management activities should be implemented.) The Department of Housing and Urban Development (HUD) began to abate lead hazards in public housing that was being renovated or in structures occupied by a child with elevated blood lead levels. These efforts, and those of State and local agencies and the private sector, reduced the incidence of lead poisoning.

In 1991, the Secretary of the Department of Health and Human Services (HHS) characterized lead poisoning as the "number one environmental threat to the health of children in the United States" (Ref. 13, p. A-3). *Preventing Lead Poisoning in Young Children; A Statement by the Centers For Disease Control and Prevention*, identified lead-based paint as the major source of high-dose lead poisoning in the United States (Ref. 12, pp. 7-10). Although CPSC's ban on high lead levels in residential paint was an important and necessary step in reducing the number of lead-poisoned children, millions of houses still contained old leaded paint.

B. The Federal Lead-based Paint Program.

1. *Title X and the Federal goal.* Primarily in response to this persistent health threat, in 1992 Congress enacted Title X. Congress found that low-level lead poisoning was widespread among American children, affecting, at that time, as many as 3,000,000 children under age 6; that the ingestion of household dust containing lead from deteriorating or abraded lead-based paint was the most common cause of lead poisoning in children; and that the health and development of children living in as many as 3,800,000 American homes was endangered by chipping or peeling lead paint, or excessive amounts of lead-contaminated dust in their homes. Congress determined that the prior Federal response to this crisis was

insufficient and established, in Title X, a national goal of eliminating lead-based paint hazards in housing as expeditiously as possible. Congress decided that the Federal government would take a leadership role in building the infrastructure necessary to achieve this goal.

The stated purposes of Title X are:

- To develop a national strategy to build the infrastructure necessary to eliminate lead-based paint hazards in all housing as expeditiously as possible.

- To reorient the national approach to the presence of lead-based paint in housing to implement, on a priority basis, a broad program to evaluate and reduce lead-based paint hazards in the Nation's housing stock.

- To encourage effective action to prevent childhood lead poisoning by establishing a workable framework for lead-based paint hazard evaluation and reduction and by ending the current confusion over reasonable standards of care.

- To ensure that the existence of lead-based paint hazards is taken into account in the development of Government housing policies and in the sale, rental, and renovation of homes and apartments.

- To mobilize national resources expeditiously, through a partnership among all levels of government and the private sector, to develop the most promising, cost-effective methods for evaluating and reducing lead-based paint hazards.

- To reduce the threat of childhood lead poisoning in housing owned, assisted, or transferred by the Federal Government.

- To educate the public concerning the hazards and sources of lead-based paint poisoning and steps to reduce and eliminate such hazards.

(Ref. 2). To accomplish this ambitious goal, a number of agencies were assigned specific responsibilities under Title X, including HUD, CDC, OSHA, the National Institute for Occupational Safety and Health (NIOSH), and EPA.

The elimination of lead-based paint hazards in the nation's housing remains an important goal for the Federal government. In 1997, President Clinton created the President's Task Force on Environmental Health Risks and Safety Risks to Children in response to increased awareness that children face disproportionate risks from environmental health and safety hazards. Co-chaired by the Secretary of HHS and the Administrator of the EPA, the Task Force consisted of representatives from 16 Federal departments and agencies. The Task Force set a Federal goal of eliminating

childhood lead poisoning by the year 2010. This proposed rule is an important component of the Federal strategy for achieving this goal. In October 2001, President Bush extended the work of the Task Force for an additional 18 months beyond its original charter (Ref. 14). Reducing lead poisoning in children was the Task Force's top priority.

Childhood lead exposure continues to be a major public health problem among young children in the United States. Most children with blood lead levels in excess of CDC's current level of concern have been exposed to lead in non-intact paint, interior settled dust, and dust and soil in and around deteriorating older housing (Ref. 15). The nature and extent of the problems associated with residential lead-based paint have been thoroughly investigated. Approximately 40% of all U.S. housing units (about 38 million homes) have some lead-based paint. Use of lead-safe work practices during renovation can advance the goal of primary prevention of lead poisoning (Ref. 15).

2. EPA's lead-based paint program.

Under Title X, EPA is directed to take actions that can be divided into 4 key categories:

- Establishing a training and certification program for persons engaged in lead-based paint activities, accrediting training providers, establishing work practice standards for the safe, reliable, and effective identification and elimination of lead-based paint hazards, and developing a program to address exposure to lead-based paint hazards from renovation and remodeling activities.

- Ensuring that, for most housing constructed before 1978, lead-based paint information flows from sellers to purchasers, from landlords to tenants, and from renovators to owners and occupants.

- Establishing standards for identifying dangerous levels of lead in paint, dust and soil.

- Providing information on lead hazards to the public, including steps that people can take to protect themselves and their families from lead-based paint hazards.

Each of these categories is discussed in more detail in the following sections.

a. *Training and certification, accreditation, and work practice standards.* Title X added a new title to TSCA entitled "Title IV Lead Exposure Reduction." Most of EPA's responsibilities for addressing lead-based paint hazards can be found in this title, with section 402 being one source of the rulemaking authority to carry out these responsibilities. TSCA section

402(a) directs EPA to promulgate regulations covering lead-based paint activities to ensure persons performing these activities are properly trained, that training programs are accredited, and that contractors performing these activities are certified. These regulations must contain standards for performing lead-based paint activities, taking into account reliability, effectiveness, and safety.

On August 29, 1996, EPA promulgated final regulations under TSCA section 402(a) governing lead-based paint inspections, lead hazard screens, risk assessments, and abatements in target housing (Ref. 16). TSCA section 401 defines "target housing" as any housing constructed prior to 1978, except housing for the elderly or persons with disabilities (unless any child who is less than 6 years of age resides or is expected to reside in such housing for the elderly or persons with disabilities) or any 0-bedroom dwelling. These regulations also apply to "child-occupied facilities," which are defined at 40 CFR 745.223 as buildings constructed before 1978, or portions of such buildings, where children under age 6 are regularly present.

TSCA section 402 defines lead-based paint activities in target housing as inspections, risk assessments and abatements. The 1996 regulations cover lead-based paint activities in target housing and child-occupied facilities, along with limited screening activities called lead hazard screens. The regulations also established an accreditation program for training providers and a certification program for individuals and firms performing these activities.

Training providers who wish to provide lead-based paint training for the purposes of the Federal lead-based paint program must be accredited by EPA. Implementing regulations at 40 CFR 745.225 describe in detail the requirements for each course of study, how training programs must be operated, and the process for obtaining accreditation. Training programs must have a training manager with experience or education in a construction or environmental field, and a principal instructor with experience or education in a related field and education or experience in teaching adults. Training programs must also have adequate facilities and equipment for delivering the training. To become accredited, an application for accreditation must be submitted to EPA on behalf of the training program. The application must either include the course materials and syllabus, or a statement that EPA model

materials or materials approved by an authorized State or Tribe will be used. The application must also include a description of the facilities and equipment that will be used, a copy of the test blueprint for each course, a description of the activities and procedures that will be used during the hands-on skills portion of each course, a copy of the quality control plan, and the correct amount of fees. If EPA finds that the program meets the regulatory requirements, it will accredit the training program for 4 years. To maintain accreditation, the training program must submit an application and the correct amount of fees every 4 years.

Individuals and firms that perform inspections, lead hazard screens, risk assessments, or abatements in target housing or child-occupied facilities must be certified. Certification requirements and the process for becoming certified are described in 40 CFR 745.226. A firm that wishes to become certified must submit an application, along with the correct amount of fees, attesting that it will use only certified individuals to perform lead-based paint activities and that it will follow the work practice standards in 40 CFR 745.227. An individual who wishes to become certified must take an accredited training course in at least one of the certified disciplines: Inspector, risk assessor, project designer, abatement worker, and abatement supervisor. The risk assessor, project designer, and abatement supervisor disciplines have additional requirements for education or experience in a construction or environmental field. The inspector, risk assessor, and abatement supervisor disciplines also require the applicant to pass a certification examination administered by a third party.

The regulations at 40 CFR part 745, subpart L, also contain work practice standards for performing inspections, lead hazard screens, risk assessments and abatements in target housing and child-occupied facilities. The regulations contain specific requirements for conducting paint sampling during an inspection and specify information that must be gathered and samples that must be taken as part of a lead hazard screen or risk assessment. The requirements for abatements are also set forth in the regulations. When conducting abatements, an occupant protection plan must be prepared by a certified supervisor or project designer; certain work practices such as open-flame burning, machine sanding or abrasive blasting without high-efficiency exhaust

control, dry scraping, and heat guns at high settings are prohibited; and a visual inspection and dust clearance sampling must be performed after the abatement is finished to ensure that the area is ready for re-occupancy. Any samples collected during any of these regulated lead-based paint activities must be analyzed by a laboratory recognized by EPA as being capable of analyzing paint chips, dust, and soil for lead. Requirements for inspection, lead hazard screen, risk assessment or abatement reports are also described in this section.

Recognizing the importance of States and Territories in achieving the goal of eliminating lead-based paint hazards in housing, Congress specifically directed EPA to establish a model State program and a process for authorizing States to operate such programs in lieu of the Federal program. Concurrently with the subpart L rulemaking in 1996, EPA codified, at 40 CFR part 745, subpart Q, a model training and certification program and a process for enabling States, Territories, and Tribes to apply for authorization to administer their own lead-based paint activity programs. Providing Indian Tribes with this opportunity is consistent with EPA's Policy for the Administration of Environmental Programs on Indian Reservations (Ref. 17). EPA also provides grants under TSCA section 404 to States, Territories, and Tribes to assist them in developing and administering these programs, as well as programs implementing TSCA section 406(b), discussed in this Unit.

On June 9, 1999, the subpart L regulations were amended to include a fee schedule for training programs seeking EPA accreditation and for individuals and firms seeking EPA certification (Ref. 18). These fees were established as directed by TSCA section 402(a)(3), which requires EPA to recover the cost of administering and enforcing the lead-based paint activities requirements in unauthorized States. The most recent amendment to the subpart L regulations occurred on April 8, 2004, when notification requirements were added to help EPA monitor compliance with the training and certification provisions and the abatement work practice standards (Ref. 19).

As of December 2005, 44 programs comprised of 39 States, 3 Tribes, Puerto Rico, and the District of Columbia were authorized to administer lead-based paint activity programs. In the remaining jurisdictions, where EPA is responsible for administering the subpart L regulations, there were approximately 55 accredited training

course providers, 1,300 certified firms, 500 certified inspectors, 1,400 certified risk assessors, 60 certified project designers, 1,000 certified abatement supervisors, and 2,800 certified abatement workers. EPA believes that, in most areas of the country, there is an adequate supply of accredited courses and certified firms and individuals available to meet the demand for lead-based paint services. This is a significant part of the national infrastructure necessary to achieve the goal of eliminating lead-based paint hazards in housing.

In addition, Congress directed EPA, in TSCA section 405, to establish protocols, criteria, and minimum performance standards for analysis of lead in paint, dust, and soil. TSCA section 405 further directed EPA, in consultation with HHS, to develop a program to certify qualified laboratories. The National Lead Laboratory Accreditation Program (NLLAP) provides the public with a list of laboratories that have met EPA requirements and demonstrated the capability to accurately analyze paint chip, dust, or soil samples for lead. All laboratories recognized by NLLAP must pass on-site audits conducted by one of the two accrediting organizations currently participating in NLLAP, the American Industrial Hygiene Association (AIHA), and the American Association for Laboratory Accreditation. Recognized laboratories must also perform successfully on a continuing basis in the Environmental Lead Proficiency Analytical Testing (ELPAT) Program established by NIOSH, AIHA, and EPA.

b. *Lead-based paint information for purchasers, renters, owners, and occupants of target housing.* Another of EPA's responsibilities under Title X is to require that purchasers and tenants of target housing and occupants of target housing undergoing renovation are provided information on lead-based paint and lead-based paint hazards. As directed by TSCA section 406(a), CPSC, HUD, and EPA, in consultation with CDC, jointly developed a lead hazard information pamphlet entitled "Protect Your Family From Lead in Your Home" ("PYF") (Ref. 20). The availability of this pamphlet was announced on August 1, 1995 (Ref. 21). This pamphlet was designed to be distributed as part of the disclosure requirements of section 1018 of Title X and TSCA section 406(b), to provide home purchasers, renters, owners, and occupants with the information necessary to allow them to make informed choices when selecting housing to buy or rent, or deciding on home renovation projects. The pamphlet

contains information on the health effects of lead, how exposure can occur, and steps that can be taken to reduce or eliminate the risk of exposure during various activities in the home.

Pursuant to the authority provided in section 1018 of Title X, on March 6, 1996, HUD and EPA jointly promulgated regulations requiring persons who are selling or leasing target housing to provide the PYF pamphlet and information on known lead-based paint and lead-based paint hazards in the housing to purchasers and renters (Ref. 22). These joint regulations, codified at 24 CFR part 35, subpart A, and 40 CFR part 745, subpart F, describe in detail the information that must be provided before the contract or lease is signed and require that sellers, landlords, and agents document compliance with the disclosure requirements in the contract to sell or lease the property. Title X does not provide for these requirements to be administered by States or Tribes in lieu of the Federal regulations. Therefore, HUD and EPA are responsible for administering and enforcing these disclosure obligations.

TSCA section 406(b) directs EPA to promulgate regulations requiring persons who perform home renovations for compensation to provide a lead hazard information pamphlet to owners and occupants of target housing being renovated. These regulations, promulgated on June 1, 1998, are codified at 40 CFR part 745, subpart E (Ref. 23). The term "renovation" is defined, at 40 CFR 745.83, as the modification of any existing structure, or portion of a structure, that results in the disturbance of painted surfaces. Lead-based paint abatement projects are specifically excluded, as are small projects that disturb 2 square feet (ft²) or less of painted surfaces, emergency projects, and renovations affecting components that have been found to be free of lead-based paint, as that term is defined in the regulations, by a certified inspector or risk assessor. Like the regulations regarding disclosure during sales or leases, these regulations require the renovation firm to document compliance with the requirement to provide the owner and the occupant with the PYF pamphlet. One important difference from the disclosure requirements in section 1018 of Title X is that TSCA section 404 allows States to apply for, and receive authorization to administer, the TSCA section 406(b) requirements. Two States are currently authorized to operate this program.

c. Standards for lead in paint, dust, and soil. Another responsibility assigned to EPA by Title X is the

development of standards for identifying dangerous levels of lead in paint, dust and soil. These standards, promulgated pursuant to TSCA section 403 on January 5, 2001 and codified at 40 CFR part 745, subpart D, provide various Federal agencies, including HUD, and State, local and Tribal governments with uniform benchmarks on which to base decisions on remedial actions to safeguard children and the public from lead-based paint hazards (Ref. 24). These standards also allow certified inspectors and risk assessors to easily determine whether a particular situation presents a lead-based paint hazard and whether to recommend remedial actions such as lead-based paint abatement, cleaning of dust, or removal of soil. The standards define lead-based paint hazards in target housing and child-occupied facilities as paint-lead, dust-lead, and soil-lead hazards. A paint-lead hazard is defined as any damaged or deteriorated lead-based paint, any chewable lead-based painted surface with evidence of teeth marks, or any lead-based paint on a friction surface if lead dust levels underneath the friction surface exceed the dust-lead hazard standards. A dust-lead hazard is surface dust that contains a mass-per-area concentration of lead equal to or exceeding 40 micrograms per square foot ($\mu\text{g}/\text{ft}^2$) on floors or 250 $\mu\text{g}/\text{ft}^2$ on interior window sills based on wipe samples. A soil-lead hazard is bare soil that contains total lead equal to or exceeding 400 parts per million ($\mu\text{g}/\text{g}$) in a play area or average of 1,200 parts per million of bare soil in the rest of the yard based on soil samples.

d. Public outreach and education. Among other things, TSCA section 405(d) directs EPA, along with the Agency for Toxic Substances and Disease Registry (ATSDR) and HUD, to sponsor public education and outreach activities to increase public awareness of the health effects of lead, the potential for exposures, the importance of screening children for elevated blood lead levels, and measures that can be taken to reduce or eliminate lead-based paint hazards. Accordingly, EPA has worked to provide the public with information and increase public awareness of such matters. To date, these activities have included web site management, development of public outreach strategies, development of partnership agreements, distribution of materials, participation in national conferences and exhibits, and developing hazard information documents (and other media, such as videos), as necessary to implement Title X. EPA has collaborated closely with

other Federal agencies and its State, Tribal, and local government partners in developing outreach campaigns targeted for the Women, Infants and Children (WIC) program, Little League Baseball, and Spanish-speaking populations. Recently, EPA worked with the National Head Start Association to develop a lead poisoning prevention campaign entitled "Give Your Child a Chance of a Lifetime." The campaign consisted of a number of lead awareness documents, including a brochure for parents, fact sheets for Head Start staff, and a curriculum for Head Start teachers. Lead awareness outreach materials were provided to Head Start Centers in New York, Chicago, Philadelphia, Houston, and Los Angeles. The material was also distributed at the National Head Start Association Training Conferences. EPA has also been involved in developing model tool kits of various educational tools to provide to partners, such as slogans and graphic materials for public buses, trains, and mass transit stations.

EPA has used its authority under TSCA section 10 to award grants to Tribes to support Tribal educational outreach and to conduct baseline assessments of Tribal children's existing and potential exposure to lead. In fiscal year 2005, EPA began a new targeted grant program aimed at reducing the incidence of childhood lead poisoning in vulnerable populations (Ref. 25). These grants are providing funding for proven or innovative programs in areas with high rates of childhood lead poisoning, and in areas where rates are unknown but other conditions suggest high rates may exist.

TSCA section 405(e) further directs EPA to establish, in connection with HUD, CDC, other Federal agencies, and State and local governments, a clearinghouse for information on lead-based paint and a hotline for the public to use for questions and requests for information on lead-based paint. This clearinghouse, the National Lead Information Center, handles approximately 50,000 calls per year, and disseminates up to 500,000 documents per year to the public.

3. Lead-based paint programs at other Federal agencies. In addition to EPA, other Federal agencies have important roles in achieving the goals of reducing or eliminating lead-based paint hazards in housing, as well as the national goal of eliminating childhood lead poisoning by 2010. Other agencies specifically assigned tasks in Title X include HUD, CDC, and OSHA.

The Federal agencies have long realized that they must work together to develop and implement Federal strategies for addressing lead-based

paint hazards in order to be efficient and effective. In 1989, HUD and EPA formed an inter-agency task force to work through issues associated with lead-based paint abatement. The Federal Interagency Lead Based Paint Task Force has remained active throughout the years and continues to meet on a quarterly basis. Participating agencies include the Department of Defense, the Veterans Administration, the National Institute of Standards and Technology (NIST), the U.S. Public Health Service, the National Aeronautics and Space Administration (NASA), the United States Department of Agriculture (USDA), the Government Accountability Office (GAO), the National Institute for Environmental Health Sciences (NIEHS), ATSDR, CDC, CPSC, NIOSH, OSHA, HUD, and EPA. This Task Force serves as an important forum for coordinating the strategic plans of the Federal agencies who have responsibilities under Title X or who have responsibilities for maintaining and disposing of property that may contain lead-based paint.

Title X assigned certain responsibilities to HUD. One of HUD's functions is the administration of the Lead-Based Paint Hazard Control Program established by the Act. This program provides grants of \$1 million to \$3 million to State and local governments for control of lead-based paint hazards in privately-owned, low-income owner-occupied and rental housing that is not receiving federal assistance. These grants are also designed to stimulate the development of a trained and certified hazard evaluation and control industry. Evaluation and hazard control work funded by the program must be conducted by either contractors who are certified by EPA or an EPA-approved State or Tribal program, or by contractors trained in lead-safe work practices, in the case of interim controls. Through these requirements, HUD hopes to create infrastructure that will last beyond the life of the grant. In awarding grants, HUD promotes the use of cost-effective approaches to hazard control that can be replicated across the nation. Since 1993, approximately \$971 million has been awarded to over 200 local and State jurisdictions across the country. The work approved to date will lead to the control of lead-based paint hazards in more than 70,000 homes where young children reside or are expected to reside. Other HUD lead grant programs include the Lead Hazard Reduction Demonstration program, the Lead Elimination Action Program

(LEAP), the Lead Outreach program and the Lead Technical Studies program.

HUD was also given regulatory authority over some aspects of lead-based paint hazard control. As noted previously, on March 6, 1996, HUD and EPA jointly promulgated regulations requiring the disclosure of lead-based paint information during sale or lease transactions involving target housing. The HUD disclosure regulations are codified at 24 CFR part 35, subpart A. Subparts B through R of 24 CFR part 35 are known as the "Lead Safe Housing Rule," initially promulgated on September 15, 1999, and updated in June 2004 (Ref. 26). This rule was designed to protect young children from lead-based paint hazards in target housing that is being sold by the Federal government or receives financial assistance from the government. The requirements generally depend upon the level of assistance being provided, and may include such things as inspections, risk assessments, abatement, paint stabilization, or interim controls, which are temporary measures to reduce potential exposure to lead-based paint hazards. The emphasis is on reducing lead-based paint hazards, so, after paint is disturbed, a visual assessment for surface dust, debris, and residue and dust clearance testing is required to ensure that no dust lead hazards were created or left in the work area or, for rehabilitation projects of moderate or substantial scope, in the entire housing unit. More information on the Lead Safe Housing Rule is available on the HUD website at <http://www.hud.gov/offices/lead/leadsaferule/index.cfm> or by calling (202) 755-1785, extension 104.

Section 1017 of Title X required HUD to issue "guidelines for the conduct of federally supported work involving risk assessments, inspections, interim controls, and abatement of lead-based paint hazards." In response to this directive, HUD completed the *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (Guidelines)*, in June 1995 (Ref. 27). The *Guidelines* provide detailed, comprehensive, technical information on how to identify lead-based paint hazards in housing and how to control such hazards safely and efficiently.

Other core activities of HUD's lead-based paint program include providing technical assistance to housing authorities, nonprofit housing providers, local and State agencies, other Federal agencies, housing developers, inspectors, real estate professionals, contractors and financiers, and public health authorities; evaluating the hazard reduction methods used in the grant

program to measure their effectiveness, cost and safety; and maintaining a community outreach program in coordination with the other Federal agencies involved in lead-based paint hazard reduction.

CDC also provides significant funding for the prevention of childhood lead poisoning. CDC provides funding to support State, city and county programs in the areas of primary prevention, case management and screening, surveillance, strategic partnerships, and program evaluation. Since 2002, CDC has recommended that a blood lead level of 10 micrograms per deciliter ($\mu\text{g}/\text{dL}$) be used as a threshold for individual intervention (Ref. 28). Additional CDC recommendations address the type and intensity of individual intervention strategies that should be undertaken, depending upon the child's blood lead level. These strategies range from nutritional and educational interventions, along with more frequent testing, for a child with a blood lead level of 10-14 $\mu\text{g}/\text{dL}$, to medical and environmental interventions for children with blood lead levels above 45 $\mu\text{g}/\text{dL}$ (Ref. 28). CDC has established a national surveillance system for children with elevated blood lead levels. In addition, CDC works with HUD and EPA to coordinate outreach and education campaigns.

OSHA is another agency with regulatory authority under Title X. As directed by the Act, OSHA promulgated an interim final standard on May 4, 1993, which regulates lead exposures in the construction industry (Ref. 9). This standard, codified at 29 CFR 1926.62, limits worker exposures to 50 micrograms of lead per cubic meter of air averaged over an 8-hour workday. Employers must use a combination of engineering controls and work practices to reduce employee exposure as much as possible, using appropriate respiratory protection where necessary to achieve the exposure limit. Employees must receive training on the health effects of lead and how to limit exposure through proper work practices and personal protective equipment. Exposure monitoring and medical monitoring, including blood lead testing, are also required. This standard remains in effect and OSHA retains the authority to protect workers from occupational exposure to lead.

Many Federal agencies have been working to reduce or eliminate lead-based paint hazards in housing and to end childhood lead poisoning. EPA, HUD, and other Federal agencies have been working for many years on the problem of lead-based paint hazards that can be created during renovation

and remodeling activities in housing. This rulemaking is an important component of the Federal strategy for eliminating childhood lead poisoning.

C. EPA Activities Related to This Rulemaking.

TSCA section 402(c) addresses renovation and remodeling. For the stated purpose of reducing the risk of exposure to lead in connection with renovation and remodeling activities, section 402(c)(1) requires EPA to promulgate and disseminate guidelines for the conduct of such activities which may create a risk of exposure to dangerous levels of lead. In response to this statutory directive, EPA developed the guidance document entitled *Reducing Lead Hazards when Remodeling Your Home* in consultation with industry and trade groups (Ref. 29). This document has been widely disseminated to renovation and remodeling stakeholders through the National Lead Information Center, EPA Regions, and EPA's State and Tribal partners and is available at www.epa.gov/lead/rrpamph.pdf.

TSCA section 402(c)(2) directs EPA to study the extent to which persons engaged in various types of renovation and remodeling activities are exposed to lead during such activities or create a lead-based paint hazard regularly or occasionally. The terms "renovation" and "remodeling" are not defined by the statute. For assistance in selecting the activities to be studied, and in otherwise defining the scope of this study, EPA consulted with persons from national committees, major trade industries, Federal and State governmental agencies, academia, and medical institutions who were involved in lead research and policy making. After receiving individual input from these consultations and a meeting in April 1993, with a number of the contacted individuals, EPA identified the following 11 categories of renovation and remodeling activities with the potential for resulting in exposure to lead:

- Paint removal.
- Surface preparation.
- Removal of large structures (demolition).
- Window replacement.
- Enclosure of exterior painted surfaces (i.e., siding).
- Carpet or other floor covering removal.
- Wallpaper removal.
- HVAC (central heating system) repair or replacement including duct work.
- Repairs or additions resulting in isolated small surface disruptions.

- Exterior soil disruption.
- Major renovation projects involving multiple target activities.

1. *Renovation and remodeling study.* The study itself was conducted in 4 phases; each phase was peer reviewed and the results of the peer reviews are discussed in the study reports (Refs. 30, 31, 32, and 37). The approach and conclusions for each phase are summarized in this Unit.

a. *Phase I.* The approach taken for Phase I, *Environmental Field Sampling Study* (Ref. 30), involved a series of case studies and included data collection efforts for the following target activities:

- Paint removal by abrasive sanding.
 - Removal of large structures, including demolition of interior plaster walls.
 - Window replacement.
 - Carpet removal.
 - HVAC repair or replacement, including duct work.
 - Repairs resulting in isolated small surface disruptions, including drilling and sawing into wood and plaster.
- Exterior siding, wallpaper removal, and exterior soil disruption were excluded because the study design team and the individuals consulted in the information-gathering phase generally considered these target activities to be of secondary importance. The last category, repairs resulting in isolated small surface disruptions, was represented by drilling holes and sawing into wood and plaster covered with lead-based paint.

After the completion of each activity, dust samples were collected within one foot of where the activity occurred and approximately 5 to 6 feet away from the location of the activity. Samples were collected in a manner that excluded any contribution of pre-existing leaded dust at the sample location (Ref. 30). With the exception of carpet removal and drilling into plaster, the results from the samples taken within one foot of the activity indicated that these activities produce lead loadings on the floor that exceed the TSCA section 403 hazard standards of 40 µg/ft² for lead in dust. EPA has already determined that loadings exceeding this level can cause adverse health effects. In the case of paint removal, the estimated average lead loading in a 6 foot by one foot area extending away from the activity was 42,900 µg/ft², or greater than 1,000 times the TSCA section 403 dust-lead hazard standard. For paint removal, window replacement, HVAC work, demolition of interior plaster walls, and sawing into wood, the samples taken 6 feet away from the activity also indicated lead loadings at levels well in excess of the TSCA section 403 standard.

This phase of the study also examined the effectiveness of two popular cleaning methods, broom sweeping and shop-vacuuming, for removing settled lead-dust. Although these data indicate that standard broom sweeping or shop-vacuuming can remove a high percentage of the dust (up to 99%), lead loadings nevertheless remained consistently above the TSCA section 403 standard. In addition, the data show that standard cleanup techniques sometimes disperse lead dust throughout the work area, thereby increasing lead levels in areas more distant from the work area. Accordingly, EPA has concluded that standard broom sweeping or shop-vacuuming are not reliable or effective methods for removing lead-based paint hazards created by typical renovation and remodeling activities.

Worker air-monitoring samples, indicating the degree of worker inhalation exposure, were also collected during this phase of the study. These data suggest that some renovation and remodeling activities could result in worker exposure that exceeds OSHA's permissible exposure limit (PEL) for lead of 50 µg/m³. OSHA's PEL is based on an 8-hour time-weighted average (TWA), which is an average exposure over one 8-hour shift. This study measured only average exposures over the duration of a particular activity, which would be equivalent to an 8-hour TWA for a worker only if it is assumed that the monitored activity is performed for 8 hours in a day. However, the worker exposure data generated in this study indicate that some exposures are likely to be so high that conducting the activity for only a short time would result in an 8-hour TWA that exceeds the OSHA PEL. For example, worker exposures monitored during power sanding and sawing into wood were so high that it is estimated that 45 minutes of performing these activities would result in an exposure that exceeded the PEL.

b. *Phase II.* Phase II of the study, *Worker Characterization and Blood-Lead Study*, continued to address worker exposure (Ref. 31). This phase involved collecting data on blood samples and questionnaires from 585 renovation and remodeling workers from Philadelphia and St. Louis. The questionnaire focused on demographic and background information such as work history, work habits, and hobbies. Questionnaire data also indicated that few renovation and remodeling professionals were using respirators or high energy particulate air (HEPA) vacuums. Blood samples were collected from 581 of the 585 workers. Of these

samples, 9.1% were above 10 µg/dL, 1.2% were above 25 µg/dL, and one worker had a blood-lead concentration greater than 40 µg/dL. The geometric mean blood-lead concentration for all workers was 4.5 µg/dL. A statistical model was developed and fit to the data that included effects for variables potentially related to lead exposure, such as the age of a worker's home; type of work usually performed by the worker; and the amount of renovation and remodeling activity conducted recently and over the worker's career. There were significant differences among the worker groups. Drywall workers and painters had the highest predicted blood-lead concentrations, and floor layers had the lowest. In addition, there was a statistically significant correlation between the number of days worked in pre-1950 buildings in the past month and increases in blood-lead concentrations for general renovation and remodeling work, paint removal, and cleanup, although the estimated increase was very small, less than 1 µg/dL for all activities (Ref. 38).

c. *Phase III.* Phase III of the study, *Wisconsin Childhood Blood-Lead Study*, was a retrospective study focused on assessing the relationship between renovation and remodeling activities and children's blood-lead levels (Ref. 32). This study demonstrated that general residential renovation and remodeling is associated with an increased risk of elevated blood lead levels (EBLs) in children and that specific renovation and remodeling activities are also associated with an increase in the risk of EBLs in children. In particular, removing paint (using open flame torches, using heat guns, using chemical paint removers, and wet scraping/sanding) and preparing surfaces by sanding or scraping significantly increased the risk of EBLs. Overall, these results agree with those from earlier phases of the renovation and remodeling study--renovation and remodeling activities that disturb lead-based paint increase the risk of exposure to occupants. Additionally, children living in a residence while renovation and remodeling was conducted were 30% more likely to have EBLs than children who did not live in a residence during the time renovation and remodeling was conducted.

During the Small Business Advocacy Review Panel process discussed in greater detail in Unit VIII.C.6., questions were raised in connection with this phase of the study (Ref. 33). Specifically, it was noted that the effect shown in this phase of the study was somewhat ambiguous in that several

confounding factors may have contributed to the blood lead levels. In addition, this phase yielded several surprising results, including evidence of an increased risk of elevated blood lead levels in homes that were built after 1978, the date lead-based paint was banned, although the report did offer several explanations for this result. While the study identified a correlation between renovation and remodeling activities and elevated blood lead levels in children, the Panel report states that there was no statistically significant increased risk of elevated blood lead levels (possibly because of the small sample size) when the study focuses solely on work performed by apartment building owners, apartment building staff or professional contractors. The Panel recommended that EPA undertake additional analysis of the data from this phase of the study to determine if a child was more likely to have an elevated blood lead level if the renovation and remodeling was performed by a relative or friend than if performed by a professional contractor or building management staff (those subject to the rule). The results of EPA's additional analysis, which focused on the relationship between who performs renovation and remodeling activities and the odds of an elevated blood lead level occurring in a resident child, have been placed in the docket (Ref. 34). In homes where renovation and remodeling activities had been performed, the analysis indicated the following ordering of the five possible responses to the question of who performed the renovation and remodeling, in order of highest to lowest risk of increased odds of an elevated blood lead level:

- Relative or friend not in household.
- Paid professional.
- Owner or building superintendent.
- Head of household or spouse.
- Other person in household.

As discussed in the report from Phase III of the study, some possible confounders were investigated, including the surface preparation methods, and the size of the renovation jobs undertaken, but no obvious solution was discovered.

However, several studies corroborate the findings of the Phase III study. In 1995, the New York State Department of Health assessed lead exposure among children resulting from home renovation and remodeling in 1993–1994. A review of the health department records of children with blood lead levels equal to or greater than 20 µg/dL identified 320, or 6.9%, with elevated blood lead levels that were attributable to renovation and remodeling (Ref. 35).

In addition, a case-control study assessed the association between elevated blood lead levels in children younger than 5 and renovation or repair activities in homes in New York City. A statistically significant correlation between renovation and repair work that involved preparing an interior surface for painting, and work that spreads dust and debris throughout the home, increased the risk of elevated blood lead levels for children in the study population. Researchers noted that the consistency of their results with EPA's Phase III study lends credibility to the conclusion that home renovation or repair work involving interior paint preparation contributes to a nontrivial proportion of elevated blood lead levels in children (Ref. 36, at 509).

d. *Phase IV.* Phase IV of the study, *Worker Characterization and Blood-Lead Study of R&R Workers Who Specialize in Renovations of Old or Historic Homes*, was an extension of Phase II (Ref. 37). Where Phase II examined lead exposure among a general population of renovation and remodeling professionals, Phase IV focused on individuals who worked primarily in old historic buildings. Phase IV explored lead exposure in 161 professional renovation and remodeling workers and 82 homeowners who worked extensively in old houses. Each study participant provided a blood sample for analysis and completed a detailed questionnaire identical to the one used in Phase II.

The results of Phase IV demonstrate that individuals who regularly work in potentially high lead exposure settings, i.e., old houses, do have a higher probability of an elevated blood-lead level than the general population of renovation and remodeling professionals measured in Phase II. Among these high-risk workers, 3 out of 161 had blood-lead concentrations above 40 µg/dL. Out of 82 homeowners who performed renovation and remodeling activities while residing in their own historic or pre-1940 home, 4 had blood-lead concentrations above 25 µg/dL. The geometric mean blood-lead level for professionals was significantly greater than for homeowners. Preparation for painting and/or sanding of painted surfaces were the activities most consistently associated with elevated blood-lead levels among study participants.

After evaluating the findings from all 4 phases of the study, EPA concluded that the long-term exposure faced by the occupants should be the most important consideration in determining the need for worker training and certification. EPA is particularly concerned with the

results from Phase I and Phase III. The Phase I results indicate that, where lead-based paint is present, activities that are routinely performed as part of renovation and remodeling activities can create significant amounts of leaded dust, which, if not effectively contained and cleaned up, could pose hazards to the occupants. Phase III corroborated this finding by identifying a statistically significant link between activities that are routinely performed as part of renovation and remodeling projects and an increased risk of an elevated blood lead level in children.

Finally, TSCA section 402(c)(3) directs EPA to revise the regulations under TSCA section 402(a) to apply the regulations to renovation or remodeling activities that create lead-based paint hazards. In determining which contractors are engaged in such activities, EPA must use the results of its renovation and remodeling study and consult with representatives of labor organizations, lead-based paint activities contractors, persons engaged in remodeling and renovation, and experts in lead health effects. If EPA determines that a particular category of contractors engaged in renovation or remodeling need not be certified, EPA must publish an explanation of the basis for that determination.

2. *Public consultation.* EPA began the consultation process required by TSCA section 402(c)(3) with two public meetings. Participants included representatives from renovation, remodeling and painting contractors, national contractor associations, apartment management companies, realtors, labor organizations, training providers, lead poisoning prevention advocacy groups, other Federal agencies and States. The meetings were held on December 7, 1998 and on March 8, 1999. EPA presented the results of its renovation and remodeling study at the first meeting. The remainder of that meeting and all of the second meeting involved discussion of various aspects of the existing abatement regulations and how they might fit into a renovation and remodeling rule. Topics discussed included applicability, accreditation of training providers, certification of individuals, and work practice standards (setup, occupant protection, clean-up, clearance, and restricted practices). Transcripts of these meetings have been placed in the public docket for this action (Refs. 39 and 40).

In addition, on November 23, 1999, EPA's Small Business Advocacy Chairperson convened a Small Business Advocacy Review Panel under section 609(b) of the Regulatory Flexibility Act (RFA) as amended by the Small

Business Regulatory Enforcement Fairness Act of 1996 (SBREFA). In addition to the chairperson, the Panel consisted of the Director of EPA's Office of Pollution Prevention and Toxics, the Administrator of the Office of Information and Regulatory Affairs within the Office of Management and Budget (OMB), and the Chief Counsel for Advocacy of the Small Business Administration (SBA).

Before beginning pre-panel discussions with OMB and SBA, EPA held three conference calls with potential Small Entity Representatives (SERs) to obtain feedback on the options and alternatives for a renovation and remodeling regulation. The Review Panel held an outreach meeting with Small Entity Representatives (SERs) on December 3, 1999. Eleven SERs, representing small painting, decorating, finishing, remodeling and renovation contractors, as well as multi-family housing owners and training providers, and four trade association representatives participated in the meeting. The Panel solicited comments from the SERs on the options presented by EPA, as well as EPA's cost estimates for these options. Several SERs submitted written comments to EPA following this meeting. More information on the Review Panel Process, including the recommendations of the panel, can be found in Unit VIII.C. The Panel's report, along with background information provided to panel members and SERs, has been placed in the public docket for this action (Ref. 33).

EPA also held a 2-day meeting with its State partners to discuss lead-based paint program issues. Most of the time on the agenda for this meeting, held in September 2000, was devoted to discussing how the existing abatement regulations might be modified to apply to renovation and remodeling projects. A summary of this meeting has been placed in the public docket for this action (Ref. 41).

In May 2003, EPA hosted a series of conference calls to discuss additional issues related to renovation and remodeling. Two calls were held with State and local government agency representatives as well as a State legislator. Two separate calls included representatives from renovation and remodeling contractors and contractor associations, realtors and realtor associations, and apartment owner and manager associations. These calls focused on the relationship between lead-based paint hazard evaluation and control activities and renovations. Summaries of these calls have been

placed in the public docket for this action (Refs. 42, 43, 44, and 45).

EPA has co-sponsored several national lead conferences, at which the Agency met with representatives of State and Tribal governments to discuss renovation issues, among other issues. Examples include:

- June 2000, EPA 4th National Lead Conference - Washington, DC.
- December 2000, National Lead Grantee Conference (HUD/CDC/EPA) - Atlanta, GA.
- May 2001, EPA 5th National Lead Conference - New Orleans, LA.
- June 2003, EPA 6th National Lead Conference - San Antonio, TX.
- June 2004, National Lead and Healthy Homes Grantee Conference (HUD/CDC/EPA) - Orlando, FL.

IV. Proposed Requirements for Renovation Activities

A. TSCA Section 402(c)(3) Determination

As discussed in Unit III.B., TSCA section 402(a) directs EPA to promulgate regulations to ensure that persons who perform lead-based paint activities are properly trained through accredited training programs and that contractors performing these activities are certified. The regulations must also contain work practice standards for lead-based paint activities, taking into account reliability, effectiveness, and safety. Regulations governing lead-based paint activities in target housing and child-occupied facilities were promulgated in 1996 and codified at 40 CFR part 745, subpart L. TSCA section 402(c)(3) directs EPA to revise these regulations to apply to renovation or remodeling activities that create lead-based paint hazards.

As discussed previously, the renovation and remodeling study conducted under TSCA section 402(c) found that the following renovation and remodeling activities, when conducted where lead-based paint is present, generated lead loadings on floors that exceeded the TSCA section 403 dust-lead hazard standard:

- Paint removal by abrasive sanding.
- Window replacement.
- HVAC duct work.
- Demolition of interior plaster walls.
- Drilling into wood.
- Sawing into wood.
- Sawing into plaster.

Because these activities cause lead dust to be deposited on floors in excess of the dust-lead hazard standard for floors, EPA proposes to conclude that these activities create lead-based paint hazards. In addition, based on the results of the Phase I study, EPA

proposes to conclude that drilling into plaster, where lead-based paint is present, can reasonably be anticipated to create lead-based paint hazards. Moreover, EPA believes that certain cleanup methods are not effective or reliable in reducing the lead levels below the hazard standard.

These proposed conclusions are supported by the results of other phases of the renovation and remodeling study. Phase III, *Wisconsin Childhood Blood-lead Study*, found that children who live in homes where renovation and remodeling activities were performed within the past year are 30% more likely to have a blood lead-level that equals or exceeds 10 µg/dL, the level of concern established by CDC, than children living in homes where no such activity has taken place recently.

Phases II and IV of the study, which evaluated worker exposures from renovation and remodeling activities, provide additional documentation of the significant and direct relationship between blood-lead levels and the conduct of certain renovation and remodeling activities. Phase II found a statistically significant association between increased blood lead levels and the number of days spent performing general renovation and remodeling activities, paint removal, and cleanup in pre-1950 buildings in the past month. Phase IV of the study found that persons performing renovation and remodeling activities in old historic buildings are more likely to have elevated blood-lead levels than persons in the general population of renovation and remodeling workers.

Based on the results of Phases I through IV of the renovation and remodeling study, EPA proposes to conclude that any renovation activity that disturbs lead-based paint can create significant amounts of leaded dust. EPA reaches this proposed conclusion because the study examined renovation activities on a variety of components using a variety of tools and methods, and discovered that each activity that disturbed lead-based paint caused lead dust in amounts that created or could reasonably be anticipated to create lead-based paint hazards. EPA believes that the activities studied are representative of the paint-disturbing activities that typically occur during renovations. EPA requests comment on its proposed conclusions drawn from the Phase I through IV studies, as well as on the studies themselves. EPA also invites commenters to submit or identify peer-reviewed studies and data, of which EPA may not be aware, that assess the results of exposure to renovation, repair and painting activities in housing or

other facilities that may contain lead-based paint.

EPA is therefore proposing to revise existing regulations to extend training, certification, and work practice requirements to certain renovation and remodeling projects in target housing. It is not EPA's intention to merely expand the scope of the current abatement requirements to cover renovation and remodeling activities. Rather, EPA has carefully considered the elements of the existing abatement regulations and revised them as necessary to craft a proposal that is practical for renovation and remodeling businesses and their customers, while taking into account reliability, effectiveness, and safety as directed by TSCA section 402(a).

In addition, EPA is considering whether some or all of these proposed provisions should be incorporated into the abatement regulations. In particular, the Agency is requesting comment about allowing the use of the workplace practices in this proposal in lieu of the prohibition of certain workplace practices in the abatement regulations. Also, the Agency is requesting comment about allowing cleaning verification in lieu of clearance testing in the abatement regulations. If the Agency were to change the abatement regulations, it could incorporate the regulatory language in this proposal (i.e., allow abatement firms the option of following the workplace practice standards in the proposed 40 CFR 745.85(a) in lieu of the workplace practice standards in the abatement rule, and allow abatement firms the option of following the cleaning verification procedure in the proposed 40 CFR 745.85(b) in lieu of the clearance testing requirements) in the abatement rule. Comments are invited on whether changes should be proposed to the abatement regulations and, if so, the nature of these changes.

EPA also requests comment on potential unintended consequences of this proposal. For example, the costs of this proposed rule, which renovation firms are likely to pass on to consumers in whole or in part, may cause some homeowners to perform some renovation projects themselves rather than hire a professional. More information on the costs and benefits of this proposal can be found in Unit VIII.A. EPA has made a concerted effort to keep the costs as low as possible, while still providing adequate protection against lead-based paint hazards created by renovation activities. Homeowners who choose to perform their own renovation projects are not likely to have taken formal training in lead-safe work practices, so they may

not be familiar with the methods they should use to prevent lead exposures for themselves and their children. However, in the absence of this proposed regulation, EPA believes that most contractors and building management staff will not receive formal training in lead-safe work practices either. In addition, building owners may choose to defer maintenance as a result of the increased renovation costs attributable to this proposal. EPA requests comment on the likelihood that there will be more do-it-yourself renovation projects or deferred maintenance, and information or data on what that might mean in terms of health impacts, as well as other potential consequences of this proposal.

B. Scope of Proposed Regulation

1. Housing units that would be covered. EPA is proposing to amend the existing regulations at 40 CFR part 745, subpart E, that implement TSCA section 406(b) to add training and certification requirements, as well as work practice standards, for certain renovations performed for compensation in target housing. The proposed amendments would apply to renovations performed within housing units as well as renovations performed in common areas in multi-unit housing. The TSCA section 406(b) regulations, also referred to as the Pre-Renovation Education Rule, currently require persons performing renovations for compensation in all target housing to provide owners and occupants with a lead hazard information pamphlet that discusses lead-based paint and lead-based paint hazards. In delineating the scope of today's proposal, EPA is using many of the definitions and exemptions used in the Pre-Renovation Education Rule. For example, the term "target housing" is defined in TSCA section 401 as any housing constructed before 1978, except housing for the elderly or persons with disabilities (unless any child under age 6 resides or is expected to reside in such housing) or any 0-bedroom dwelling. EPA is not proposing to modify this definition in any way.

EPA is proposing to make the requirements contained in this proposal effective in two major stages. In the first stage, the proposed requirements would apply to renovation projects performed for compensation in:

- All target housing where the firm performing the renovation obtains information indicating that a child under age 6 resides there, if the child has a blood-lead level greater than or equal to 10 µg/dL or a State or local government level of concern, if lower, or the firm does not provide the owners and occupants with the opportunity to

inform the firm that a child under age 6 with such a blood-lead level resides there;

- All owner-occupied target housing built before 1960, unless the firm performing the renovation obtains a statement signed by the owner that the renovation will occur in the owner's residence and no child under age 6 resides there; and

- All rental target housing built before 1960.

The second stage would extend the proposed requirements to:

- All owner-occupied target housing, unless the firm performing the renovation obtains a statement signed by the owner that the renovation will occur in the owner's residence and no child under age 6 resides there; and
- All rental target housing.

The second stage would take effect 1 year after the first stage takes effect.

For each stage, the requirements of the rule would only apply to those renovations that meet the proposed definition of renovation discussed in Unit IV.B.3. and do not qualify for the exceptions discussed in Unit IV.B.4.

The purpose of this regulation is to prevent the creation of new lead-based paint hazards from renovation activities in housing where children under age 6 reside. To achieve the goal of eliminating childhood lead poisoning by 2010, it is important to focus society's resources on the activities that have the greatest impact on the population at greatest risk.

According to the *National Survey of Lead and Allergens in Housing*, 24% of the housing constructed between 1960 and 1978 contains lead-based paint (Ref. 46). In contrast, 69% of the housing constructed between 1940 and 1959, and 87% of the housing constructed before 1940 contains lead-based paint. The results of this survey indicate that there is a much greater likelihood of disturbing lead-based paint during a renovation that occurs in a home built before 1960 than in a home built after that date. EPA seeks comment on these facts and how these facts should affect the regulatory requirements under TSCA section 402(c)(3), which requires EPA to apply regulations issued under section 402(a) to renovations in target housing that create lead-based paint hazards.

Although most homes built between 1960 and 1978 do not contain lead-based paint, EPA remains concerned about the risks presented to those children under age 6 who reside in one of the homes that does. Therefore, EPA is proposing to phase in coverage of those homes after 1 year. As discussed in more detail in this Unit, EPA believes

that during this phase in period it will be possible to develop test kits that are able to identify more accurately those homes that do not contain lead-based paint at regulated levels.

As discussed in Unit IV.B.4.a., EPA is proposing to exempt renovations that affect only components that have been determined to be free of paint or other surface coatings that contain lead equal to or in excess of 1.0 mg/cm² or 0.5% by weight. In addition to a determination by a certified inspector or risk assessor, EPA is also proposing to allow the use of EPA-recognized test kits to determine whether the components to be affected are free of regulated lead-based paint. Accurate test kits represent a relatively simple and inexpensive way to identify where lead-based paint is present and assist homeowners and renovation firms in determining where lead-safe work practices should be followed.

Research on the use of these kits for testing lead in paint has been published by NIST (Ref. 47). The research to date shows that, in general, there are test kits currently available which, when used by a trained professional, can reliably determine that regulated lead-based paint is not present by virtue of a negative result, but which cannot reliably determine that regulated lead-based paint is present. These kits typically are sensitive to lead at levels below the Federal standards that define lead-based paint, and therefore are prone to a large number of false positive results (i.e., a positive result when regulated lead-based paint is, in fact, not present). The NIST research found that false positive rates range from 42% to 78%.

These false positive rates mean that the currently-available test kits are not an effective means of identifying the 76% of homes built between 1960 and 1978 that do not contain regulated lead-based paint. EPA believes that the sensitivity of test kits could be adjusted for paint testing so that the results from the kits reliably correspond to one of the two Federal standards for lead-based paint, 1.0 mg/cm² and 0.5% by weight. EPA also believes that this can be accomplished in the near future and is planning to conduct research to further the development of test kits that accurately identify both the presence and absence of lead in paint at levels that exceed the Federal standards. EPA's goals for this research are to develop a kit that can reliably be used by a person with minimal training, is inexpensive (under \$2 per test), provides results within an hour, and is demonstrated to have a false positive rate of no more than 10% and a false negative rate at 1.0

mg/cm² or 0.5% by weight of less than 5%. This research effort is consistent with one of the stated purposes of Title X, "to mobilize national resources expeditiously, through a partnership among all levels of government and the private sector, to develop the most promising, cost-effective methods for evaluating and reducing lead-based paint hazards."

EPA is confident that improved test kits meeting EPA's research goals can be available within the next 3 years. Based on the proposed effective dates for the initial stage of this rule, discussed in greater detail in Unit VI., the improved test kits should be available within 1 year after the initial stage of the rule becomes effective in all jurisdictions. EPA is therefore proposing to extend the requirements of this proposal to rental housing built between 1960 and 1978, as well as owner-occupied homes built between 1960 and 1978 where a child under age 6 resides, 1 year after the requirements become effective for such homes built before 1960. This staged approach will initially address the renovations that present the greatest risks to children under age 6, i.e., the renovations that are most likely to disturb lead-based paint, while allowing additional time for the development of improved test kits before phasing in the applicability of the rule to newer rental target housing and newer owner-occupied target housing where children under age 6 reside.

It is EPA's expectation that the improved test kits will be available before the effective date of the requirements that apply to rental housing built between 1960 and 1978, as well as owner-occupied homes built between 1960 and 1978 where a child under age 6 resides. If it appears that these improved test kits will not be available by that effective date, EPA will consider delaying the effective date for the requirements that apply to rental housing built between 1960 and 1978, as well as owner-occupied homes built between 1960 and 1978 where a child under age 6 resides. EPA requests comment on whether EPA should wait to finalize the proposed second stage of this regulation until the new kits are commercially available nationwide. Waiting would ensure that the improved test kits are available before renovation firms must comply with the training, certification, and work practice requirements of this proposal for renovations in housing that is more likely than not to be free of regulated lead-based paint. The proposed rule, by allowing the use of test kits in pre-1960 housing to determine the absence of lead-based paint, provides an incentive

for improved test kits. In addition, an established deadline for coverage of homes built between 1960 and 1978 provides an even greater incentive for the private sector to pursue improved test kits.

Although EPA is proposing to extend the effective date for housing built between 1960 and 1978 for an additional year, EPA remains concerned about children under age 6 residing in these homes if the children have increased blood lead levels. In many cases where a blood level in excess of the applicable level of concern has been identified, intervention by State and local public health officials should ensure that further exposure to lead is minimized. However, to prevent the possibility that an unregulated renovation activity will contribute to continuing exposures to lead for children with increased blood lead levels, EPA is proposing to include in the first stage of this proposal all target housing built before 1978 where a child under age 6 with a blood lead level that equals or exceeds the CDC level of concern, or a lower State or local government level of concern, resides. (As is discussed in Unit IV.B.4., renovations that only affected components that had been determined to be lead-based paint free would be exempt from the requirements of this proposal.)

The existing Pre-Renovation Education Rule requires renovators to inform owners and occupants of target housing of the potential risks from renovation projects by providing them with the PYF pamphlet. Persons performing renovations covered by the existing regulations must already either obtain a signed acknowledgment from the owner indicating that the pamphlet has been received, or a certificate of mailing indicating that the pamphlet was mailed at least 7 days before the renovation. EPA has developed a sample acknowledgment form that renovators could use not only to record the owner's receipt of the lead hazard information pamphlet, but to obtain additional information on the housing to be renovated and its residents (Ref. 1). This would enable renovation firms to satisfy their current obligations under the Pre-Renovation Education Rule and assist them in complying with the requirements of this proposal. EPA seeks comment on this sample form, a copy of which is available in the docket for this proposed rule and on the Agency's Web page.

a. *Target housing constructed between 1960 and 1978 where a child under age 6 with an increased blood lead level resides.* As discussed in this Unit of the

preamble, EPA is proposing that this rule take effect in two major stages. EPA is proposing that the first stage include renovations performed for compensation in target housing constructed between 1960 and 1978 where a child under age 6 with a blood lead level that equals or exceeds the CDC level of concern (10 µg/dL), or a lower State or local government level of concern, resides. For the purposes of this proposal, children reside in the primary residences of their custodial parents, foster parents, and legal guardians. In addition, this proposal considers housing where a child lives and sleeps most of the time as the child's residence, even if this housing is not the residence of the child's legal custodians. This means that a child may have more than one residence, but it will ensure that the primary residences of all children under age 6 are covered by either stage one or stage two of this proposal, if they reside in target housing.

EPA recognizes that the renovation firm is not likely to have access to information on the blood lead levels of resident children. Therefore, EPA is proposing to require only that the renovation firm offer the owners and occupants of target housing built between 1960 and 1978 the opportunity to inform the firm that a child under age 6 with a blood lead level that equals or exceeds 10 µg/dL, or any lower State or local government level of concern, resides in the housing to be renovated. This opportunity could be as simple as a statement on the form used to acknowledge receipt of the information pamphlet, or, if the pamphlet is mailed, a note included in the mailing asking the recipient to inform the renovation firm if a child under age 6 with a blood lead level that equals or exceeds 10 µg/dL, or any lower State or local government level of concern, is in residence. Tenant notifications required for renovations in common areas could include a similar note. EPA's sample acknowledgment form incorporates a statement to this effect (Ref. 1).

EPA will not require the renovation firm to presume that a child under age 6 with a blood lead level that equals or exceeds 10 µg/dL, or any lower State or local government level of concern, resides in housing to be renovated, if the renovation firm does not receive any information from the owner or occupant. EPA requests comment on how a renovation firm could obtain this information if it is unable to obtain a signed statement from the owner.

b. *Owner-occupied target housing where a child under age 6 resides.* EPA is also proposing to include, in the first

stage of this rulemaking, renovation projects performed for compensation in all owner-occupied target housing built before 1960, unless the firm performing the renovation obtains a statement signed by the owner that the renovation will occur in the owner's residence and that the housing is not the primary residence of a child under age 6. The primary residences of children under age 6 living in target housing constructed between 1960 and 1978 would be covered in the second stage of this proposed regulation.

The sample acknowledgment form developed by EPA will assist renovation firms in obtaining a written statement from owner-occupants as to whether a child under age 6 resides in the housing to be renovated (Ref. 1). In many cases, EPA anticipates that the presence of this statement on the form will prompt a discussion between the homeowner and the renovation firm on the information in the lead hazard information pamphlet as well as the lead-safe work practices that would be required by this proposal. A homeowner without children under age 6 in residence who subsequently chooses not to have the renovation firm follow lead-safe work practices will be making an informed decision in these circumstances.

If the renovator is unable to obtain an acknowledgment form from the owner-occupant, and instead meets the requirements of the Pre-Renovation Education Rule by a certificate of mailing indicating that the pamphlet was mailed at least 7 days before the renovation, the renovator would have to assume that a child under age 6 resided in the housing to be renovated and would have to perform the renovation in accordance with the applicable work practice standards of this proposal.

Subsequent purchasers of the housing will also be able to make informed decisions as a result of the regulations promulgated under section 1018 of Title X and codified at 24 CFR part 35, subpart A, and 40 CFR part 745, subpart F. These regulations, briefly summarized in Unit III.B.2.b., would not ordinarily require a seller, in the absence of specific knowledge of lead-based paint or lead-based paint hazards, to disclose information about renovation projects to a purchaser. However, the informational pamphlet that the seller must provide includes information about potential lead-based paint hazards on residential property and recommends that purchasers obtain a lead-based paint inspection or risk assessment on property they are interested in buying. A risk assessment would identify any dust-lead hazards on the property, whether created by a

renovation performed without lead-safe work practices or some other activity.

c. *Rental target housing.* Also in the first stage of this rulemaking, the proposed requirements would apply to all rental target housing built before 1960, regardless of whether a child under age 6 resides there. The second stage would extend the requirements to all rental target housing.

The proposal would apply to target housing that is currently being rented, as well as target housing being offered for rent and target housing that the owner intends to offer for rent. Renovations to prepare target housing for the rental market would have to be performed in accordance with this proposal. Unlike in owner-occupied housing, occupants who are tenants have far less control over renovation projects in their housing than occupants who are owners. EPA believes that, in most cases, the owner of housing, or the owner's agent, enters into contracts for renovation services, not the tenant. The owner has control over who performs the project and how it is conducted. In addition, renovations in rental housing often occur between tenants, when the housing is vacant and it is not known whether the next tenants will include a child under age 6. Therefore, requiring proper training and work practices in rental housing is necessary to protect the tenant occupants. Finally, applying the requirements of this proposal only to rental housing where children under age 6 reside could foster discrimination in the rental market against families with children under age 6. Although it is not the preferred option, EPA requests comment on whether this proposal should apply only to rental target housing where children under age 6 reside.

This proposal avoids placing responsibility on the renovation firm for determining whether a child under age 6 resides in a particular housing unit; the renovation firm would be responsible, however, for determining whether the housing unit is rental target housing. EPA considered holding the renovation firm responsible for making both determinations. However, it may be very difficult in many situations for the renovation firm to find objective proof that a child under age 6 does or does not reside in a particular housing unit. Because this proposal does not cover, for example, the residences of relatives that provide occasional care for a child, the mere presence of toys or other signs indicating the presence of a child under age 6 would not be a sufficient basis for deciding that the requirements of this proposal apply.

In contrast, EPA does not believe that determining whether housing is rental target housing presents the same level of difficulty for renovators. Contractors are already responsible, under the TSCA section 402(a) regulations at 40 CFR part 745, subpart L, as well as under the Pre-Renovation Education Rule, for determining whether a unit of housing is target housing. This involves determining whether the housing was built before 1978 and whether it is housing for the elderly or housing for persons with disabilities. EPA believes that, in many cases, it is obvious to the renovation firm that housing is target housing, and it will be relatively easy to determine that the housing is rental housing. Multi-unit buildings or multi-building complexes are likely to be rental housing, unless the name of the property includes the words "condominium" or "co-operative." In any event, the renovation firm remains ultimately responsible for making this determination. It should be noted that, during the first stage of this proposed rule, the renovation firm would be responsible for determining whether the housing was built before 1960.

EPA requests comment on whether renovation firms should be able to assume that no child under age 6 resides in owner-occupied housing. The identification of the residences of children under age 6 could be addressed in the same way that EPA is proposing to address children with increased blood lead levels during the first phase of the rule's applicability, discussed in Unit IV.B.1.a. If the renovation firm determined that the renovation activities would occur in owner-occupied housing, the firm could offer the owner-occupant the opportunity to inform the firm that a child under age 6 resides in the housing. If the owner-occupant did not provide the firm with any information on children in residence, the firm could assume that no child under age 6 resided in the housing, and the provisions of this proposal would not apply. EPA does not prefer this approach because children under age 6 could be put at risk unintentionally through mis-directed mail, or a misunderstanding on the part of the owner-occupant as to the information sought by the renovation firm.

d. *Owner-occupied multi-unit housing.* With respect to condominiums and cooperatives, EPA requests comment on whether to require that all renovations conducted in the common areas, such as hallways or stairways, of multi-unit buildings, as well as renovations conducted on the exteriors of such buildings, be conducted in

accordance with the proposed training, certification and work practice requirements, regardless of whether the individual units are owner-occupied. Currently, the proposal would allow all the owners of such multi-unit owner-occupied buildings to certify that no children under age 6 reside in the individual units, in which case renovators would not be required to comply with the proposed work practice standards in common areas. However, it is likely to be very difficult, if not impossible, to secure the signatures of all of the owners of the individual units, attesting to the fact that no child under age 6 resides in any of the units of the building. If all of the owners do not so attest, renovations in common areas would have to be conducted in accordance with this proposal. The signatures of the building managers would not be sufficient, because there may be children in residence that are unknown to the building managers.

e. *Owner-occupied target housing where a pregnant woman resides.* EPA also requests comment on the appropriateness of applying the provisions of this rule to owner-occupied target housing where an expectant mother resides, in addition to owner-occupied housing where a child under age 6 resides. If this option were included in the rule, and no children under age 6 resided in the housing to be renovated, the renovation firm would not be required to use the work practices in this proposal unless the renovation firm collected a statement from the owner-occupant indicating that a woman residing in the housing was pregnant or thought she might be pregnant. Fetuses exposed to lead in the womb may be born prematurely and have lower birth weights. In addition, the transplacental transfer of lead in humans is well documented, and infants are generally born with a lead body burden reflecting that of the mother (Ref. 4). Therefore, covering the residences of pregnant women under this regulation would provide additional protection for vulnerable populations. However, owner-occupants, including expectant mothers, will be receiving a lead hazard information pamphlet under the Pre-Renovation Education Rule that will enable them to make educated choices about renovation activities in their residences.

2. *Other options considered.* EPA considered a range of other alternatives to defining the universe of housing that would be covered by this regulation. The primary alternative EPA considered was a single-staged regulation that would cover all renovations in rental

target housing and owner-occupied target housing where a child under age 6 resides. This option is not preferred at this time. As discussed in this section, EPA is proposing to phase in coverage of housing built between 1960 and 1978 to allow time to develop an accurate, but simple and inexpensive, means for determining whether the affected components in a particular housing unit built within this time frame are free of regulated lead-based paint (the determination whether a component is lead-based paint free is discussed more fully in Unit IV.B.4.a.). EPA solicits comment on this option.

EPA also considered a single-staged regulation that would cover all renovations in rental target housing built before 1960 and owner-occupied target housing built before 1960 where a child under age 6 resides. This option is not preferred at this time because 24% of the target housing built between 1960 and 1978 contains lead-based paint. A regulation that excludes those homes would not cover the residents of those homes, particularly the children residing in those homes, from potential lead-based paint hazards created by renovation activities. It should be noted that the Phase I study, which demonstrated lead dust loadings from renovation activities in target housing, did not differentiate housing by age. The measured lead loadings in that study represent an average. In the *National Survey of Lead and Allergens in Housing* (Ref. 46), a paint lead loading exceeding 10 mg/cm² was detected in 3% of the homes constructed between 1960 and 1978, compared to 14% of the homes constructed between 1940 and 1959, and 55% of the homes constructed before 1940. Further analysis of the data found that, although there were fewer homes built between 1960 and 1978 that contained lead-based paint, the average lead concentration of paint on windows and on exterior walls, doors, and trim was higher in housing built between 1960 and 1978 than in housing built between 1950 and 1960 (Ref. 48). EPA's preferred option takes into account the fact that most target housing built between 1960 and 1978 does not contain lead-based paint by phasing in coverage of those homes after improved test kits are expected to be available. EPA requests comment on the option of limiting this proposal to housing built before 1960, and on other options tied to the age of the housing and the likelihood that the housing contains lead-based paint.

EPA also considered proposing a rule limited to the provision of information and certification, training, and accreditation requirements. The

rationale for such a limited rule would be that individuals, if provided information on the health effects of lead exposure and renovation work practices that minimize leaded dust creation and release, would be able to choose whether or not to request that a firm performing a renovation use lead-safe work practices. Individuals wishing to employ a renovation firm that would use lead-safe work practices would be assured by the certification, training, and accreditation provisions that a firm certified by EPA would employ persons trained in the use of lead-safe work practices. This is not the preferred option because EPA believes that a voluntary program of lead-safe work practice compliance would not provide sufficient protection from lead-based paint hazards created by renovation activities. Nevertheless, the Agency invites comment on this option.

Finally, EPA considered covering all renovations in target housing without providing an exclusion for target housing where children under age 6 do not reside. A child under age 6 may spend a significant amount of time in housing that is not his or her primary residence, for example, in the home of a babysitter. In addition, a child that moved into housing shortly after a renovation performed without lead-safe work practices took place would be exposed to lead dust from the renovation. This is not the preferred option at this time because the proposed option provides a more focused targeting of resources on the population most at risk. EPA specifically requests comment on applying the requirements of this proposal without the exclusion for target housing where children under age 6 do not reside.

3. *Activities that would be covered.* This proposal, like the Pre-Renovation Education Rule, would only apply to persons who perform renovations for compensation. This includes owners of rental property and their employees, as well as paid employees of home improvement companies, residential property management companies, State and local government agencies, and non-profits. With regard to the renovation activities that would be covered by this regulation, EPA is proposing to cover the same universe of activities that is already regulated under the Pre-Renovation Education Rule--essentially, activities that modify an existing structure and that result in the disturbance of painted surfaces. All types of repair, remodeling, modernization, and weatherization projects would be covered, including projects performed as part of another Federal, State, or local program, if the

projects meet the definition of "renovation" codified in 40 CFR 745.83. The regulated community has had years of experience in applying this definition, as well as the applicability provisions in 40 CFR 745.82.

EPA considered and requested public comment on various approaches to defining the term "renovation" for the Pre-Renovation Education Rule, including options modeled on a definition in the TSCA asbestos regulations, the construction tasks identified by OSHA in its Lead in Construction Standard, and by the use of Standard Industrial Codes (SIC codes) as a means of defining the subject universe (Ref. 49). The majority of the public comments EPA received in response to its proposal involved the definition of this term. In response to the public comments, EPA crafted a definition that borrows from other sources but focuses on the activities of greatest concern to EPA, activities that disturb lead-based paint (Ref. 23). This definition also covers virtually all of the activities in the renovation and remodeling study that created lead-based paint hazards. Conversely, EPA does not believe that this definition is overbroad, i.e., it does not capture a significant number of renovation activities that are not capable of creating lead-based paint hazards. All of the activities monitored in EPA's renovation and remodeling study which involved the disturbance of lead-based paint created or could reasonably be anticipated to create lead-based paint hazards. The study evaluated common renovation activities likely to disturb lead-based paint, including demolition of structures containing lead-based paint, removal of fixtures containing lead-based paint (window replacement), sawing and drilling into materials containing lead-based paint, and sanding lead-based paint. Because all of these activities are capable of creating lead-based paint hazards, a definition of "renovation" that is primarily based on the disturbance of lead-based paint is well-tailored to regulate the activities of concern.

As noted previously, the Phase I study excluded exterior siding installation, wallpaper removal, and exterior soil disruption because the study design team and the individuals consulted in the information-gathering phase generally considered these target activities to be of secondary importance. EPA has no quantitative information on the lead dust loadings generated during such activities in target housing. However, to the extent that these activities disturb paint, these activities would be covered by this proposal.

Conversely, the Phase I study did include HVAC duct work, but it is possible that, in some cases, this work would not involve the disturbance of paint, and would, therefore, not be covered by this proposal. EPA requests comment on whether exterior siding projects, wallpaper removal, and exterior soil disruption or other activities should be excluded from this proposal or whether HVAC duct work should be specifically included. EPA is particularly interested in any data regarding the lead loadings generated by these activities that would support their exclusion or inclusion, and other activities that should be considered in the same manner.

The panel convened by EPA pursuant to the Regulatory Flexibility Act recommended that the Agency consider exempting certain specialty contractors (e.g., plumbing, electrical) from the rule. More information on this panel and its recommendations can be found in Unit VIII.C.6.e. EPA is not proposing to exempt such work *per se*, but requests comment on whether any category of specialty contractor should be excluded from this proposal, along with data that would support the exclusion of a particular category of contractor.

In some circumstances, a renovation, as that term is defined in this proposal, may constitute only a portion of a larger residential renovation and remodeling project. The certification, training, and work practice elements of this proposal would only be applicable during the portion of a project that involves the disturbance of painted surfaces. For example, adding a room to an existing home may require the demolition of an existing wall to provide access to the room. In this case, the only portion of the project that involves disturbing painted surfaces may be the demolition of the existing wall. A certified firm and a certified individual would be needed to establish the required work area, demolish the wall, perform the required clean-up, and verify that the area has been properly cleaned. If the remainder of the project, the construction of the new room, does not involve the disturbance of existing painted surfaces, then the requirements of this proposal would not apply to that portion of the project. Painters who disturb a large area of painted surface with surface preparation activities, such as sanding, would be performing a regulated renovation under this proposal. Merely painting prepared surfaces does not generally disturb existing paint, so a painter who prepares surfaces by sanding and then paints the prepared surfaces would be able to choose whether to perform required cleaning

and cleaning verification activities before or after the prepared surface is painted.

4. *Exceptions*—a. *Components free of regulated lead-based paint.* EPA is proposing to continue to exempt renovations that only affect painted components that have been determined, by a certified inspector or risk assessor, to be free of paint or other surface coatings that contain lead equal to or in excess of 1.0 mg/cm² or 0.5% by weight. This determination may be made as part of a lead-based paint inspection of an entire housing unit or building, or on a component-by-component basis.

EPA is also proposing to exempt renovations that only affect painted components that have been demonstrated to be free of regulated lead-based paint through the use of an EPA-recognized test kit by a certified renovator. EPA intends to recognize those test kits that have a very low probability of false negative responses, because an incorrect negative result may lead to the creation of lead-based paint hazards through uncontrolled renovation activities. More specifically, for paint containing lead at or above the regulated level, 1.0 mg/cm² or 0.5% by weight, EPA intends to recognize kits that have a demonstrated probability (with 95% confidence) of a negative response less than or equal to 5% of the time. In addition, as soon as the improved test kits discussed in Unit IV.B.1. are generally available, EPA intends to recognize only those test kits that have a demonstrated probability of a false positive response of no more than 10% to lead in paint at levels below the regulated level. EPA believes that limiting recognition to kits that result in a relatively-low rate of false positives would benefit the consumer by reducing the number of times that the training and work practice requirements of this regulation are followed in the absence of regulated lead-based paint. These performance parameters would have to be validated by a laboratory independent of the kit manufacturer, using ASTM International's E1828, Standard Practice for Evaluating the Performance Characteristics of Qualitative Chemical Spot Test Kits for Lead in Paint (Ref. 50) or an equivalent validation method. The instructions for use of any particular kit would have to conform to the results of the validation, and the certified renovator must follow the manufacturer's instructions when using the kit. EPA requests comment on whether these standards are reasonably achievable and sufficiently protective. EPA is also soliciting suggestions on how to conduct the kit recognition process.

As required by the Pre-Renovation Education Rule, if the renovation firm relies on a determination by a certified inspector or risk assessor that affected components are free of paint or other surface coatings that contain lead equal to or in excess of 1.0 mg/cm² or 0.5% by weight, the renovation firm must obtain a copy of the written determination before the renovation begins and keep it for no less than 3 years from the date the renovation is completed. If a test kit is used, the renovation firm must keep records documenting the use of the kit, including the name of the kit, who used the kit, and the results, for no less than 3 years from the completion date of the renovation.

To assist renovation firms in determining whether a particular project is eligible for this exception, EPA is proposing to incorporate, in 40 CFR 745.83, the definition of the term "component or building component" from 40 CFR 745.223.

b. *Minor maintenance.* This regulation would also retain the Pre-Renovation Education Rule exception in 40 CFR 745.82(a)(1) for minor maintenance activities that disturb 2 ft² or less of painted surface per component. As discussed in the preamble to the final Pre-Renovation Education Rule, this exception was primarily designed as a means for distinguishing between renovation activities and routine maintenance activities (Ref. 23, p. 29911). Because this exception for small surface area disturbances has acted as a surrogate for routine maintenance activities in the Pre-Renovation Education Rule, EPA is proposing to apply this exception to the requirements of this regulation.

The stakeholders participating in the various meetings EPA has held on renovation issues have had varying opinions of this exception. In general, property owners and managers favored this exception because it would remove routine, minor maintenance activities from the scope of the rule. Renovation firms thought it would have little impact on the jobs that they typically do. Advocacy organizations did not favor this exception because small projects can also create lead-based paint hazards. EPA requests additional comment on the appropriateness of this exception as a surrogate for routine building maintenance activities, and suggestions for alternate or additional surrogates.

Although EPA believes that increasing the size of the exception from 2 ft² to 5 or 10 ft² would reduce the number of renovations covered by this proposed rule, EPA does not have enough

information to estimate the number of renovations that would be affected by such a change. EPA is concerned that increasing the size of the exception, particularly for interior projects, would reduce the protections against lead-based paint hazards offered by this proposal. In addition, increasing the exception size would make this proposal inconsistent with the Pre-Renovation Education Rule and likely cause confusion among the regulated community, because renovation firms have been implementing the 2 ft² exception for a number of years.

Finally, HUD's Lead Safe Housing Rule, at 20 CFR 35.1350(d), includes "*de minimis*" levels of 2 ft² per room for interior projects and 20 ft² on exterior surfaces. If less than this amount of painted surface is disturbed, HUD's lead-safe work practice requirements do not apply. EPA's lead-based paint abatement regulations also use these as small project exceptions, at 40 CFR 745.65(d). EPA requests comment on incorporating these size limitations into this proposal and is particularly interested in any data regarding the number of renovations that would be affected by a change in the mirror maintenance exception and any data that would support a change in this exception.

c. *Emergency projects.* EPA is proposing to retain the emergency project exception of the existing Pre-Renovation Education Rule. Under that exception, renovators are not required to provide a lead hazard information pamphlet to owners and occupants of target housing that is undergoing emergency renovation operations. In general, stakeholders participating in EPA's renovation meetings favored an exception for emergency projects. This proposal would retain that exception, but would require that the emergency renovation operations be performed in compliance with the work practice standards to the extent practicable.

EPA is proposing to modify the language of the exception to clarify that interim control projects performed on an expedited basis in response to an elevated blood lead level finding in a resident child qualify for the emergency project exemption from the Pre-Renovation Education Rule requirements. The term "interim controls," defined in 40 CFR 745.83 of the proposal, means measures designed to temporarily reduce exposure to lead-based paint hazards. Some interim control projects, such as the repair of damaged areas of paint, are renovations as defined in 40 CFR 745.83, and are subject to the Pre-Renovation Education Rule and would also be covered by this

proposed regulation. Others, such as specialized cleaning, may not involve the disturbance of paint, and would therefore not be covered by either regulation.

EPA is concerned that local public health organizations may be delayed in responding to a lead-poisoned child if the owner of the building where the child resides is not available to acknowledge receipt of the PYF pamphlet before an interim control project begins. The Pre-Renovation Education Rule allows persons performing renovations to mail a copy of the pamphlet to the owner, but the mailing must occur at least 7 days before the project begins. Exempting these types of projects from the Pre-Renovation Education Rule would enable public health organizations to begin responding to an elevated blood-lead level immediately, without significantly affecting the flow of information to the population at risk. Organizations that intervene in these cases typically provide a great deal of lead-based paint hazard information to the family of the lead-poisoned child. EPA is proposing to limit this provision of the emergency project exception to interim control projects that are performed as a direct response to a lead-poisoned child. EPA requests comment on whether a time limit should be placed on projects qualifying for this exception, whether only projects performed within a certain amount of time after a lead-poisoned child has been identified should be exempt, and, if so, what period of time would be adequate for these purposes.

EPA also understands that there may be emergency situations where compliance with the training, certification, and work practice requirements of this proposal is not practicable. In general, the proposed phase-in period for the regulatory requirements proposed in § 745.81 should be more than sufficient to allow enough persons to be trained and certified to provide an adequate supply of certified entities available for emergency renovation operations. An important reason for creating the emergency exception to the Pre-Renovation Education Rule was to allow property managers to respond quickly to problems such as a broken water pipe in an apartment even if the occupant is away from the premises. EPA anticipates that most property management companies who do their own maintenance will find it advantageous to have a trained and certified renovator on staff to perform renovations, so there should be no reason why these entities would not be

able to comply with the training and certification requirements on all renovations. Likewise, EPA knows of no reason why firms performing emergency renovation operations would not be able to follow the clean-up procedures specified in this proposal after emergency repairs have been made. In fact, in the vast majority of cases, persons performing emergency renovation projects should be able to comply with all of the work practice requirements of this proposal. However, because there may be situations where it is not feasible to post warning signs or contain the work area before responding to the emergency, EPA is proposing to add a statement to the section describing this exemption to make it clear that the work practice requirements, the recordkeeping requirements, and the training and certification requirements in proposed §§ 745.85, 745.86, 745.89, and 745.90 apply to the extent practicable.

C. Training, Certification, and Accreditation

Under the regulations at 40 CFR part 745, subpart L, both individuals and firms that perform lead-based paint inspections, lead hazard screens, risk assessments, and abatements must be certified by EPA. EPA is proposing a similar, but not identical, regulatory scheme for individuals and firms that perform renovations.

EPA is proposing to require that all renovations regulated by this rule be performed by a firm certified to perform renovations and directed by a certified renovator. Although not required by the proposed rule, if dust sampling were performed, it would also have to be performed by a certified dust sampling technician, inspector, or risk assessor on behalf of a certified firm. In order to become a certified renovator, a person would have to either possess certification as a lead-based paint abatement supervisor or worker, or take an accredited renovator course. In order to perform dust sampling, a person would have to possess certification as a lead-based paint inspector or risk assessor, or take an accredited dust sampling technician course. Certification based on a dust sampling technician course would qualify the individual to conduct dust sampling as part of a renovation, but not as part of a lead-based paint activity under 40 CFR part 745, subpart L. EPA renovator or dust sampling technician certification would allow the certified individual to perform renovations or dust sampling in any State or Indian Tribal area that does not have a renovation program authorized under 40 CFR part 745,

subpart Q. Each of these requirements is discussed in greater detail in the following sections.

1. *Firms*—a. *Firm responsibilities.* Proposed § 745.89(d) describes the responsibilities of firms performing renovations or dust sampling. These firms must ensure that all persons performing renovation activities on behalf of the firm are either certified renovators or have been trained and are directed by a certified renovator in accordance with proposed § 745.90. Firms must also ensure that all persons performing dust sampling on behalf of the firm are certified as either risk assessors, inspectors, or dust sampling technicians. The firm is responsible for assigning a certified renovator to each renovation performed by the firm and ensuring that the certified renovator discharges all of the responsibilities identified in proposed § 745.90. The firm is also responsible for ensuring that all renovations performed by the firm are performed in accordance with the work practice standards in proposed § 745.85. Finally, EPA is proposing to amend § 745.86 to require a firm to retain and make available to EPA all records necessary to demonstrate compliance with the provisions of this proposal. These records would have to include copies of training certificates for certified renovators and dust sampling technicians used on projects, along with signed and dated descriptions of how worker training activities, sign posting, work area containment, waste handling, cleaning, and post-renovation cleaning verification or clearance were conducted in compliance with this subpart. These descriptions must include a certification by the record preparer that the descriptions are complete and accurate. To assist firms in complying with these recordkeeping requirements, EPA has developed a simple form that firms could use to ensure that they are maintaining all of the necessary records (Ref. 51). Use of this form would not be mandatory, firms could keep the required records in any manner that they choose. EPA requests comment on the utility and practicality of the sample recordkeeping form, which EPA would make available on its internet site and from the National Lead Information Center. EPA also requests comment on the recordkeeping requirements in general, as well as information on the business records typically kept by renovation firms that could be used to demonstrate compliance with the training, certification, and work practice requirements of this proposal.

When multiple contractors are involved in a renovation, any contractor

who disturbs, or whose employees disturb, paint in excess of the minor projects exception would be responsible for compliance with all of the requirements of the Pre-Renovation Education Rule and this proposal. In this situation, renovation firms may find it advantageous to decide among themselves which firm will be responsible for providing pre-renovation education to the owners and occupants, which firm will establish containment, and which firm will perform the post-renovation cleaning and cleaning verification. For example, a general contractor may be hired to conduct a multi-faceted project involving the large-scale disturbance of paint, which the general contractor then divides up among several subcontractors. In this situation, having the general contractor discharge the obligations of the Pre-Renovation Education Rule is likely to be the most efficient approach, since this only needs to be done once. The general contractor can then provide the subcontractors with copies of the signed acknowledgment form or proof of mailing. With regard to containment, the general contractor may decide that it is most cost-effective to establish one large work area for the entire project. In this case, from the time that containment is established until post-renovation cleaning verification occurs, all general contractor and subcontractor personnel performing renovation tasks within the work area would have to be certified renovators or trained and directed by certified renovators in accordance with this proposal. In addition, these personnel would be responsible for ensuring the integrity of the containment barriers. The cleaning and post-renovation cleaning verification could be performed by any properly qualified individuals, without regard to whether they are employees of the general contractor or a subcontractor. However, all contractors involved in the disturbance of lead-based paint, or who perform work within the work area established for the containment of lead dust and debris, would be responsible for compliance with this proposal, regardless of any agreements the contractors may have made among themselves.

EPA considered requiring renovation firms to provide notification to EPA before commencing a renovation activity, in the same way that abatement firms are currently required by 40 CFR 745.227(e)(4) to notify EPA before commencing an abatement. This is not the preferred option at this time because EPA believes that it would be unduly burdensome for renovation firms, given

the large number of renovations that EPA estimates would be subject to this proposed regulation annually. In addition, the processing of notifications would require a significant resource commitment on EPA's part. However, notification could improve EPA's ability to monitor compliance with work practice requirements while renovations are ongoing. EPA requests comment on whether notifications should be required for all renovation projects, or whether they should be required for a subset of regulated renovations, such as large-scale projects, projects in rental properties, or projects in housing built before 1940. Suggestions for how these categories could be identified are also requested. In addition, EPA requests comment on whether a notification requirement should be phased in over time, to allow the regulated community and EPA to evaluate the effectiveness and the feasibility of such a requirement.

b. *Initial certification.* Firms that perform renovations covered by this proposal would have to be certified by EPA. EPA is proposing to add a definition of "firm" to 40 CFR 745.83 to make it clear that this term includes persons in business for themselves, i.e., sole proprietorships, as well as Federal, State, Tribal, and local governmental agencies, and nonprofit organizations. Firms covered by this proposal include firms that typically perform renovations, such as building contractors or home improvement contractors, as well as property management companies or owners of multi-family housing performing property maintenance activities that include renovations within the scope of this proposal.

EPA is proposing to use a process for certifying firms to perform renovations that is similar to the process currently used to certify firms to perform lead-based paint activities, such as inspections or abatements, that are regulated by 40 CFR part 745, subpart L. This proposal provides information about the certification and recertification process, establishes procedures for amending and transferring certifications, and identifies clear deadlines.

Under proposed § 745.89(a), a firm wishing to become certified to perform renovations would submit a complete "Application for Firms," signed by an authorized agent of the firm, along with the correct certification fee. EPA intends to establish firm certification fees in a separate rulemaking.

Proposed § 745.89(a) also sets out EPA's possible responses to a firm certification application and gives the reasons why EPA would choose a

particular response. Under this proposal, EPA would approve a firm's initial application within 90 days of receipt if it is complete, including the proper amount of fees, and if EPA determines that the environmental compliance history of the firm, its principals, or its key employees does not show an unwillingness or inability to comply with applicable environmental statutes or regulations. If the application is approved, EPA proposes to follow the current practice under 40 CFR part 745, subpart L, of establishing the firm's certification expiration date at 3 years from the date of EPA's approval. EPA certification would allow the firm to perform renovations covered by this section in any State or Indian Tribal area that does not have a renovation program authorized under 40 CFR part 745, subpart Q. If the application was incomplete, EPA would notify the firm within 90 days of receipt that its application was incomplete, and ask the firm to supplement its application within 30 days. If the firm did not supplement its application within that period of time, or if EPA's check into the compliance history of the firm revealed an unwillingness or inability to comply with environmental statutes or regulations, EPA would not approve the application and would provide the applicant with the reasons for not approving the application. EPA would not refund the application fees. A firm could reapply for certification at any time by filing a new, complete application that included the correct amount of fees.

c. Re-certification. Under proposed § 745.89(b), a certified firm would maintain its certification by submitting a complete and timely "Application for Firms," noting that it is an application for re-certification, and paying the required re-certification fee. With regard to the timeliness of the application for re-certification, EPA is proposing that if a complete application, including the proper fee, is postmarked 90 days or more before the date the firm's current certification expires, the application would be considered timely and sufficient, and the firm's existing certification would remain in effect until its expiration date or until EPA had made a final decision to approve the re-certification application, or not, whichever occurred later. If the firm submitted a complete re-certification application fewer than 90 days before the date the firm's current certification expired, EPA might be able to process the application and re-certify the applicant before the expiration date, but

this would not be guaranteed. If EPA did not approve the re-certification application before the existing application expired, the firm's certification would expire and the firm would not be able to conduct renovations until EPA approved its re-certification application. In any case, the firm's new certification expiration date would be 3 years from the date the existing certification expired.

If the firm submitted an incomplete application for re-certification, and EPA had not received all of the required information and fees before the date the firm's current certification expired, or if the firm did not submit its application until after its certification expired, EPA would not approve the firm's re-certification application. The firm could not cure any deficiencies in its application package by postmarking missing information or fees by its certification expiration date. All required information and fees would have to be in EPA's possession as of the expiration date for EPA to approve the application. If EPA did not approve the application, the Agency would provide the applicant with the reasons for not approving the re-certification application. Any fees submitted by the applicant would not be refunded, but the firm could submit a new application for certification, along with the correct amount of fees, at any time.

As with initial applications, this proposal includes a description of the actions EPA may take in response to an application for re-certification and the reasons why EPA would take a particular action. This section is identical to the proposed process for initial applications, except that EPA will not require an incomplete application to be supplemented within 30 days of the date EPA requests additional information or fees. In the re-certification context, as described in the preceding paragraph, the firm must make its application complete by the date that its current certification expires. There is no compelling reason to establish another deadline for making an incomplete application complete.

d. Amendments. Proposed § 745.89(c) would require that a firm amend its certification within 45 days whenever a change occurred to information included in the firm's most recent application. If the firm failed to amend its certification within 45 days of the date the change occurred, the firm would not be authorized to perform renovations until its certification was amended. Examples of amendments include a change in the firm's name without transfer of ownership, or a change of address or other contact

information. To amend its certification, a firm would be required to submit an application, noting on the form that it was submitted as an amendment. The firm would be required to complete the sections of the application pertaining to the new information, and sign and date the form. The amendment would have to include the correct amount of fees. Amending a certification would not affect the validity of the existing certification or extend the certification expiration date. EPA would issue the firm a new certificate if necessary to reflect information included in the amendment. Firm certifications are not transferable—if the firm is sold, the new owner must submit a new initial application for certification in accordance with § 745.89(a).

e. Suspension, revocation, or modification of certification. EPA is also proposing, in § 745.91, procedures for suspending, revoking, or modifying a firm's certification. These procedures are identical to the current procedures in place for suspending, revoking, or modifying the certification of a firm that is certified to perform lead-based paint activities.

2. Individuals—a. Renovators and workers. EPA is proposing to establish a new individual certification discipline for renovators. All renovation activities covered by this proposal would have to be performed by certified renovators, or by persons who have received on-the-job training in lead-safe work practices from certified renovators. The certified renovator assigned to a renovation would be responsible for ensuring that the renovation is performed in compliance with the work practice requirements of this proposal.

Under the proposal, a certified renovator must:

- Perform the post-renovation cleaning verification described in proposed § 745.85(b).
- Perform or direct uncertified workers who perform all of the work practices described in proposed § 745.85(a).
- Provide training to uncertified workers on the lead-safe work practices they will be using in performing their assigned tasks, how to isolate the work area and maintain the integrity of the containment barriers, and how to avoid spreading lead contamination beyond the work area.
- Be physically present at the work site when the signs required by proposed § 745.85(a)(1) are posted, while the work area containment required by proposed § 745.85(a)(2) is being established, and while the work area cleaning required by proposed § 745.85(a)(4) is performed.

- Regularly direct the work being performed by uncertified persons to ensure that lead-safe work practices are being followed, the integrity of the containment barriers is maintained, and dust or debris is not spread beyond the work area.

- Be available, either on-site or by telephone, at all times that renovations are being conducted.

- Have with them at the work site copies of their initial course completion certificate and their most recent refresher course completion certificate.

In order to use the term "renovator" to cover the new proposed certified discipline, EPA is proposing to revise the definition of the term in 40 CFR 745.83 to describe what a renovator is and how a renovator becomes certified. EPA is also proposing to modify the existing Pre-Renovation Education Rule requirements to replace the word "renovator" with a reference to the firm performing the renovation wherever the term appears. This is not intended to change the requirements of the Pre-Renovation Education Rule in any significant way. The effect of this change is to make it clear that any person associated with the firm performing the renovation, not necessarily the certified renovator, may handle the firm's pre-renovation education responsibilities.

This proposal would not require everyone involved in performing a regulated renovation project to be a certified renovator. To allow maximum flexibility for firms undertaking these projects, EPA is proposing to allow these firms to use uncertified workers to perform renovation activities as long as they receive on-the-job training in lead-safe work practices from a certified renovator. This training must include instruction in the specific lead-safe work practices that these workers will be responsible for performing. To ensure that renovations are performed safely, this proposal would require a certified renovator to be at the work site during critical phases of the renovation activity to perform or direct uncertified workers who perform tasks directly related to protecting homeowners and occupants from the hazards of lead dust. These tasks include posting warning signs, containing the work area, and cleaning the work site. The proposed post-renovation cleaning verification requirements would have to be performed by a certified renovator, they could not be delegated to an uncertified worker.

In addition, while the renovation project is ongoing, a certified renovator would have to be present at the work site on a regular basis in order to ensure

that the uncertified workers are observing lead-safe work practices and maintaining the integrity of the systems employed to contain lead dust. When a certified renovator is not physically present at the work site, the uncertified workers must be able to contact the renovator immediately by telephone or other mechanism. Because these workers would be allowed to work without formal training in protecting children and other building occupants (OSHA requires these workers, like all construction workers, to receive training in protecting themselves and other workers from job hazards including lead), EPA believes that the kind of limited supervision envisioned by OSHA's competent person requirements or the EPA regulations pertaining to lead-based paint abatement supervisors is not sufficient in this situation. A walk around the job site once every shift is not enough to ensure that the uncertified workers are following lead-safe work practices at all times.

EPA realizes that there may be other ways to achieve the goal of maximizing flexibility for renovation firms while ensuring that all persons involved in performing renovations have sufficient training and oversight to perform their tasks in a safe manner. An option EPA considered was a requirement that a certified renovator be physically present at the work site at all times while regulated renovation activities are ongoing. EPA believes that this approach would provide less flexibility for renovation firms, but requests comment on whether that is actually the case, and whether this approach would significantly improve the quality of the work performed by uncertified workers.

Another way to provide flexibility for firms would be to prohibit certified renovators from being assigned to more than one job at a time, while not specifying when a certified renovator must be present during renovations, except that only a certified renovator would be permitted to perform the post-renovation cleaning verification step. EPA requests comment on whether this approach would provide flexibility and decrease costs for renovation firms without also decreasing the amount of protection provided by these proposed regulations. Regardless of the approach used, EPA anticipates that most renovation contractors and property management companies will find that they achieve maximum efficiency and flexibility by qualifying all of their permanent employees who perform renovations as certified renovators.

EPA considered an individual certification scheme similar to that established for lead-based paint

abatement activities, with a certified supervisor and certified workers. EPA does not prefer this option primarily because of the differences between renovation projects and abatement projects. All abatement projects have the same purpose--to permanently eliminate lead-based paint hazards. Renovation projects that involve the disturbance of paint are performed for many different reasons, using many different techniques. As a result, the training required by EPA for renovators is necessarily limited to the common elements of interest to EPA, which are the methods that a renovator can use to limit the creation of lead dust, prevent it from spreading to other parts of the dwelling, and properly clean it up afterwards. The containment and clean-up methods that would be required by this regulation are easy to understand and simple to use. A certified renovator who has received accredited training in these subjects should be able to communicate the principles of lead-safe renovation to others with very little difficulty. In addition, during the SBREFA panel process, discussed in greater detail in Unit VIII.C., the regulated community expressed concern over training requirements, given the level of employee turnover in the industry. Requiring certified renovators, but allowing firms to use uncertified workers where necessary, is an attempt to address this concern while still ensuring that everyone who performs regulated renovations understands how to follow lead-safe work practices.

b. *Dust sampling technicians.* In 1999, in order to make accurate dust testing for lead more available and affordable, Congress provided EPA with funding for the development of a 1-day dust sampling technician course. Congress also encouraged the Agency to promote the recognition of this discipline. EPA completed the development of the course, entitled "Lead Sampling Technician Training Course," in July of 2000. This course provides instruction on how to conduct a visual assessment for deteriorated paint, collect samples for lead dust, and interpret sample results.

As discussed in Unit IV.E., some renovators or homeowners may choose to perform dust clearance testing at the completion of renovation activities instead of the post-renovation cleaning process that EPA is proposing. Dust clearance testing after abatements must be performed by a certified inspector or risk assessor in accordance with the procedures set forth in 40 CFR 745.227(e)(8). If dust clearance testing is to be performed after a renovation, it would also have to be performed as

directed in § 745.227(e)(8), but EPA is also proposing to allow certified dust sampling technicians to perform the testing. This proposal includes training and certification requirements for the dust sampling technician discipline to help ensure the quality of initial training, provide for periodic refresher training to keep dust sampling technicians up to date regarding current regulatory and technical protocols, and assist the public in the identification of qualified individuals. Dust sampling technicians would not be subject to any additional education or experience requirements beyond completion of an accredited dust sampling technician course, nor would they be required to pass a third-party certification examination. As with the other certified disciplines, dust sampling technicians would be required to obtain re-certification every 3 years.

EPA has determined that accredited dust sampling technicians would be qualified to perform the work described in this Unit for renovations because the training curriculum provides clearance sampling instruction that is equivalent to that presented in inspector and risk assessor courses, in terms of time and quality.

A certified dust sampling technician is responsible for collecting dust samples, sending them to an EPA-recognized laboratory, and comparing the results to the clearance levels in accordance with 40 CFR 745.227(e)(8). The certified dust sampling technician must also have with them at the work site copies of their initial course completion certificate and their most recent refresher course completion certificate.

c. Initial certification. Proposed § 745.90 addresses renovator and dust sampling technician certification. To become a certified renovator, a person would have to successfully complete a renovator course that has been accredited by EPA or by a State, Territorial, or Tribal program authorized by EPA under 40 CFR part 745, subpart Q. The renovator course accreditation requirements are based on the joint EPA-HUD model curriculum entitled *Lead Safety for Remodeling, Repair, & Painting*. More information on the development of this curriculum and the accreditation of renovator and dust sampling technician courses can be found in Unit IV.D. The renovator course primarily covers how to isolate and contain renovation projects so that leaded dust does not escape, how to minimize the creation of leaded dust, and how to properly clean up after a renovation project so that lead-based paint hazards are not left behind. EPA

is not proposing to require additional education or work experience of persons wishing to become certified renovators.

To become a certified dust sampling technician, a person would have to successfully complete a dust sampling technician training course that has been accredited either by EPA or by a State, Territorial, or Tribal program authorized by EPA under 40 CFR part 745, subpart Q. The dust sampling technician course primarily covers dust sampling methodologies and clearance standards and testing. EPA is not proposing to require additional education or work experience of persons wishing to become certified dust sampling technicians.

EPA renovator certification would allow the certified individual to perform renovations covered by this section in any State or Indian Tribal area that does not have a renovation program authorized under 40 CFR part 745, subpart Q. EPA dust sampling technician certification would allow the certified individual to perform dust sampling covered by this section in any State or Indian Tribal area that does not have a renovation program authorized under 40 CFR part 745, subpart Q.

Because EPA is not proposing any additional education or work experience requirements, or a third-party examination similar to that taken by inspector, risk assessor, or supervisor candidates, EPA believes that there is little value in requiring candidates to apply to EPA to receive their renovator or dust sampling technician certification. Currently, the only certified discipline without prerequisites in education or experience, or a third-party examination, is the abatement worker. When candidates for worker certification apply to EPA, EPA verifies that the copy of the training course certificate submitted with the application is from an accredited training provider. Without requiring renovators or dust sampling technicians to apply to EPA for certification, under this proposal EPA would still receive course completion information from course providers. With this information, under the proposal EPA would be able to check to see if a particular course completion certificate holder appeared on a course completion list submitted by the training course provider identified on the certificate. When EPA inspects a renovation job for compliance with these proposed regulations, EPA will have the ability to verify, to the same extent, the validity of a course completion certificate held by a renovator or dust sampling technician at that job. Therefore, EPA is proposing

that a course completion certificate from an accredited training provider serve as a renovator's or dust sampling technician's certification. To facilitate compliance monitoring, EPA would require a certified renovator or dust sampling technician to have a copy of the course completion certificate at the job site.

EPA also considered alternatives such as requiring renovator and dust sampling technician candidates to apply to EPA for certification, following the same procedures established for worker certification in 40 CFR 745.226. EPA also considered requiring a third-party examination for persons wishing to become certified renovator or dust sampling technicians. A third-party examination would be an additional check on the adequacy of the training courses being offered, as well as an independent assessment of how well a particular candidate retained the information presented. On the other hand, a third-party examination would significantly increase the burden of administration and the expense of complying with these proposed regulations. EPA requests comment on these options, as well as EPA's assessment of the costs and burdens of these options.

d. Re-certification. EPA is proposing to require that renovators and dust sampling technicians who wish to remain certified take refresher training every 3 years. This is consistent with the existing re-certification interval for firms and for certified individuals under 40 CFR 745.226. In addition, EPA is proposing to require that the refresher training course be half the length of the initial course. This is also consistent with current practice for certified individuals performing lead-based paint activities. If an individual does not take a refresher course within 3 years of the date he or she completed the initial course or the previous refresher course, that individual's certification will expire on that date and that individual may no longer serve as a certified renovator or dust sampling technician on a renovation project regulated by this proposal. There would be no grace period. To become certified again, the individual would have to take another initial training course.

EPA also considered an alternative of requiring certified renovators to re-take the initial renovator course every 3 years. The primary advantage to such an approach is that, eventually, renovator course attendees would be a combination of experienced renovators and persons new to the field. This would allow the experienced persons to share helpful tips and lessons learned

with others and could have a positive impact on the overall quality of the training delivered. On the other hand, longer training requirements mean increased costs for the regulated community. In addition, with the preferred option, certified renovators would always be permitted to substitute an initial renovator course for a refresher course to allow maximum flexibility, particularly if for some reason the person was unable to attend a refresher course. EPA requests comment on this option on whether 3 years is an appropriate interval for refresher training, and whether refresher training should be required at all.

e. *Individuals certified to perform lead-based paint activities.* EPA is also proposing to allow individuals who are or who become certified lead-based paint abatement supervisors or workers to act as certified renovators. These persons would have to possess a current and valid certification from EPA or an EPA-authorized State, Territorial, or Tribal lead-based paint program. EPA has determined that the training taken by candidates for supervisor or worker certification meets or exceeds the proposed training requirements for renovators with respect to many of the requirements of this proposal. Both disciplines must receive training in lead-based paint hazard recognition and control, as well as dust abatement and clean-up. However, the proposed post-renovation cleaning verification process, discussed in Unit IV.E., and the use of test kits for paint testing is not currently being taught in abatement supervisor or worker courses. EPA plans to develop guidance documents on these processes, and amend the model curriculum to cover them. EPA requests comment on whether an effective guidance document would be sufficient to familiarize abatement supervisors and workers with performing post-renovation cleaning verification and using paint test kits, or whether another approach, such as requiring certified supervisors or workers to take a renovator refresher course, would allow the regulated community to make use of the workforce already trained in lead-based paint hazard control, while ensuring that this workforce understands how to perform the post-renovation cleaning verification requirements and use test kits to test for lead-based paint.

Persons who are or who become certified lead-based paint inspectors or risk assessors based on a certification issued either by EPA under 40 CFR 745.226 or by an authorized State or Tribal program would be deemed under the proposal to be certified dust sampling technicians. Certified

inspectors and risk assessors are qualified to perform dust sampling as part of lead hazard screens, risk assessments, or abatements. This rule would also allow them to perform dust sampling after renovation activities.

f. *Persons who have previously taken a course in Lead Safe Work Practices or a Dust Sampling Technician course.* For the purposes of HUD's Lead Safe Housing Rule, many individuals have already taken HUD-approved training in lead-safe work practices. In addition, many individuals have taken a dust sampling technician course based on the model developed by EPA. EPA is specifically requesting comment on whether a streamlined certification process would be appropriate for these individuals. For example, in promulgating the lead-based paint activities certification requirements at 40 CFR 745.226, EPA allowed persons who had previously taken worker training to become certified by EPA as abatement workers without taking an accredited initial lead-based paint worker course. Individuals could become certified as workers by demonstrating that they had completed training (including on-the-job training) in the conduct of lead-based paint activities and completing an accredited worker refresher course. This option was only available for a limited time. A similar process could be used for individuals who have already taken lead-safe work practices training and who wish to become certified renovators, or individuals who have taken a dust sampling technician course and who wish to become certified dust sampling technicians.

g. *Suspension, revocation, or modification of certification.* EPA is also proposing, in § 745.89, procedures for suspending, revoking, or modifying an individual's certification. These procedures are identical to the current procedures in place for suspending, revoking, or modifying the certification of an individual who is certified to perform lead-based paint activities. However, EPA has added a sentence to this provision to make it clear that renovator certification could be suspended, revoked, or modified if the renovator does not ensure that projects to which he or she is assigned are conducted in accordance with the work practice requirements in this proposal.

3. *Training providers.* EPA is proposing to amend the general accreditation requirements of 40 CFR 745.225 to apply to training programs that offer renovator or dust sampling technician courses for certification purposes. The regulations describe training program qualifications, quality

control measures, recordkeeping and reporting requirements, as well as suspension, revocation, and modification procedures. Proposed amendments to § 745.225 would add specific requirements for the renovator and dust sampling technician disciplines. This proposal introduces minimum training curriculum, training hour, and hands-on requirements for courses leading to certification as a renovator or a dust sampling technician.

The minimum curriculum requirements for an initial renovator course are described in proposed § 745.225(d)(6). The topics would include the roles and responsibilities of a renovator; background information on lead and its health effects; background on applicable Federal, State, and local regulations and guidance; use of acceptable test kits to test paint to determine whether it is lead-based paint; methods to minimize the creation of lead-based paint hazards during renovations; containment and clean-up methods; ways to verify that a renovation project has been properly completed, including clean-up verification and clearance testing; and waste handling and disposal. Hands-on activities relating to renovation methods, containment and clean-up, clean-up verification, and waste handling would be required in all courses. Proposed § 745.225(c)(6)(vi) would establish the minimum length for an initial renovator course at 8 training hours, with 2 hours being devoted to hands-on activities. A training hour means at least 50 minutes of actual learning, including, but not limited to, time devoted to lecture, learning activities, small group activities, demonstrations, evaluations, and hands-on experience.

The minimum curriculum requirements for an initial dust sampling technician course are described in proposed § 745.225(d)(7). The topics would include the roles and responsibilities of a dust sampling technician; background information on lead and its adverse health effects; background information on Federal, State, and local regulations and guidance that pertains to lead-based paint and renovation activities; dust sampling methodologies; clearance standards and testing; and report preparation and recordkeeping requirements. Proposed § 745.225(c)(6)(vii) would establish the minimum length for an initial dust sampling technician course at 8 training hours, with 2 hours being devoted to hands-on activities.

Accreditation would also be required for refresher training courses for

renovators and dust sampling technicians. Refresher courses would consist of, at a minimum, 4 hours of training. Topics covered would have to include a review of the topics covered in the initial renovator or dust sampling technician course, along with general lead-based paint safety practices and technologies.

EPA requests comment on whether all of the topics that should be covered in the renovator and dust sampling technician courses are included, and whether hands-on activities should be required. EPA also requests comment on whether the specified training hour requirements for the initial and refresher courses are sufficient or excessive. In addition, EPA requests comment on whether minimum training hour requirements should be specified for these courses. EPA is concerned that such requirements may limit training provider flexibility without offering a substantial contribution to the quality of training.

Renovator and dust sampling technician courses, both initial and refresher, could be taught in any language, but accreditation would be required for each specific language the provider wished to present the course in. All course materials and instruction for the course would have to be in the language of the course. EPA is proposing to modify § 745.225(b)(1)(ii) to clarify that all lead-based paint courses taught in different languages are considered different courses, and accreditation must be obtained for each. To facilitate accreditation of courses in languages other than English, EPA is proposing to require that the training provider include in its application both the English version as well as the non-English version of all training materials, as well as a signed statement from a qualified, independent translator that the translator has compared the non-English language version of the course materials to the English language version and the translation is accurate. This requirement would apply to any course for which accreditation is sought, including lead-based paint activities courses. Finally, to assist EPA in monitoring compliance with these requirements, EPA is proposing to require that course completion certificates include the language in which the course was taught.

EPA is also proposing to modify the requirements for course completion certificates to make it clear that the interim certification expiration date applies only to initial lead-based paint activities courses. The concept of interim certification is not applicable to refresher courses, nor would it be

applicable to the proposed certification requirements for renovators or dust sampling technicians.

Consistent with the existing accreditation requirements for lead-based paint activities training programs, alternative training techniques (e.g., video training, computer-based training) may be used as a supplement to the hands-on skills assessment or as a substitute for the lecture portion of the training course requirements. All training programs, including those using alternative training methods, would be required to meet minimum hourly requirements for hands-on activities in their training courses. In addition, all training programs would have to administer a course test and conduct a hands-on skills assessment.

As currently required for training providers who wish to offer lead-based paint activities courses, training providers who would like to provide courses leading to renovator or dust sampling technician certification, or refresher training courses in those disciplines, would have to apply to EPA for accreditation and pay an accreditation fee. The application would have to include a description of the facilities to be used for training, a description of the methods to be used to present hands-on activities, the blueprint for the course test, and the quality control plan. In addition, the proposal provides that if the training provider will not be using EPA-recommended model course materials, or course materials approved by an EPA-authorized State or Tribal program, the application must include copies of all course materials, including the agenda or syllabus.

D. Renovation Activities

EPA is proposing to require that all renovations subject to this rule be conducted in accordance with a defined set of work practice standards. TSCA section 402(a)(1) directs EPA to promulgate regulations that, among other things, contain standards for performing lead-based paint activities, taking into account reliability, effectiveness, and safety. In revising those regulations to apply to renovation activities, EPA is proposing more specific work practice standards for firms performing renovations than are currently required for certified firms conducting lead-based paint abatement activities regulated by 40 CFR part 745, subpart L. These more specific standards are necessary, because unlike abatement firms, under this proposal renovation firms would not be required to conduct clearance testing at the conclusion of renovation activities.

Clearance testing serves as a performance standard under the abatement regulations, allowing firms flexibility when establishing and cleaning a work area. Without such a performance indicator for renovation it is necessary to more specifically describe work practices and conditions at a work site in order to protect the occupants and ensure that new lead-based paint hazards are not introduced to the home. The proposed renovation work practices are consistent with the joint EPA-HUD curriculum, *Lead Safety for Remodeling, Repair, & Painting* (Ref. 52). EPA requests comment on the work practice, cleaning, and cleaning verification requirements discussed in greater detail in this Unit.

1. *Background.* As was discussed in Unit III.B.3., HUD developed its *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* in response to a directive in Title X. The *Guidelines* provide detailed, comprehensive technical information on how to identify lead-based paint hazards in housing and how to control such hazards safely and efficiently. The *Guidelines* were the result of *The HUD Lead-Based Paint Abatement Demonstration (FHA)* that evaluated various lead-based paint hazard control methodologies both for effectiveness in reducing the lead hazard and for amount of lead dust generated (Ref. 53), as well as a number of other research projects. The *Guidelines* were developed in close consultation with EPA, CDC, OSHA, several other Federal agencies, and numerous experts and practitioners.

While the primary purpose of the *Guidelines* is to provide guidance to people involved in identifying and controlling lead-based paint hazards in Federally assisted housing, they have also proven to be useful in housing that has no connection with the Federal government. The *Guidelines* have been accepted as the *de facto* standard for evaluation and reduction of lead hazards. EPA's training and certification program under TSCA sections 402 and 404 recognizes the *Guidelines* and their recommendations. The *Guidelines* complement such regulatory programs because they provide more complete work practice recommendations and explain why certain measures are recommended.

EPA relied on the *Guidelines* in developing draft technical specifications for renovation, repair, and painting activities (Ref. 54). While the *Guidelines* are focused on work practices associated with hazard reduction (permanent or temporary elimination of existing lead hazards), they also provide detailed

information relevant to renovation (i.e., containment, and cleaning). In addition, the *Guidelines* have a useful section devoted to routine building maintenance. While the activities considered in this section are often small-scale, and do not encompass the wide range of potential renovation work projects, they were extremely helpful in formulating work practice standards that are intended to be scalable based upon the activity being performed.

EPA's draft technical specifications were developed in September 1998 with the assistance of the National Center for Lead Safe Housing (now known as the National Center for Healthy Homes) in consultation with a group of technical experts. The specifications described the precautions needed to ensure that lead-contaminated dust and debris are minimized, controlled and properly cleaned up. The technical specifications themselves were developed to be applicable both to contractors and to homeowners who perform these activities without the aid of a contractor. However, the specifications document itself was not intended for use by the general public or contractors; it was developed to provide background information and serve as a reference for EPA to prepare technical materials, including a training curriculum.

Following completion of the draft technical specifications, EPA began development of a model renovation training curriculum. In September 2000, EPA completed development of the curriculum *Minimizing Lead-Based Paint Hazards During Renovation, Remodeling, and Painting* (Ref. 55). The model curriculum was developed with the assistance of a review panel of representatives from state regulatory programs, lead advocacy groups, renovation contractors, EPA, HUD, and NIOSH. The course was developed to provide strategies to reduce or eliminate the introduction of hazards that occur when lead-based paint is disturbed. The curriculum was revised, in consultation with HUD, and renamed *Lead Safety for Remodeling, Repair, & Painting* in July 2003 (Ref. 52). The revised curriculum is one of several courses approved for training purposes under HUD's Lead Safe Housing Rule. The course represented a major Agency effort to protect public health from lead-based paint hazards associated with renovation and repainting activities, and was intended to be a model training curriculum for future regulations. Upon completion of the course, EPA made the model curriculum publicly available and encouraged renovation contractors to voluntarily obtain training.

This proposal presents basic work practice standards derived from the model training course, draft technical manual, and the *Guidelines*, among other sources. These practices provide standards as to how the work must be done in order to protect occupants from lead hazards. While the standards provide basic requirements for occupant protection, site preparation, and clean-up, the course provides more complete guidance on how activities should be carried out and why certain measures are recommended.

EPA requests comment on whether there may be situations where some or all of these proposed lead safe work practices are not necessary. For example, where housing is not occupied during the renovation process, some or all of the lead safe work practice requirements may not be necessary. In those cases, cleanup and cleaning verification may be sufficient. The Agency requests comment on the requirements that should apply in unoccupied housing, and also on whether there should be differential requirements for other situations.

2. *Proposed work practice standards*—a. *Occupant protection*. Under proposed § 745.85(a)(1), work areas must be clearly defined with signs warning occupants and other persons not involved in renovation activities to remain outside of the work area. These signs must be posted before beginning the renovation and must remain in place until the renovation has been completed and the work area has been verified to have been adequately cleaned. If warning signs have been posted in accordance with HUD's Lead Safe Housing Rule (24 CFR 35.1345(b)(2)) or OSHA's Lead in Construction Standard (29 CFR 1926.62(m)), additional signs are not required by this proposal.

b. *Containing the work area*. Under proposed § 745.85(a)(2), a firm must contain the work area so that no visible dust or debris leaves the work area while the renovation is being performed. Containment refers to methods of preventing leaded dust from contaminating objects in the work area and from migrating beyond the work area. It includes everything from the simple use of disposable plastic drop cloths to the sealing of openings with plastic sheeting. When planning a renovation project, special consideration should be given to determining the type of work site preparation necessary to prevent dust and debris from leaving the work area.

Renovation projects generate varying amounts of leaded dust, paint chips, and other lead-contaminated materials depending on the type of work, area

affected, and work methods used. Repairing a small area of damaged drywall is likely to generate less lead-contaminated dust and debris than sanding a large area in preparation for painting. Because of this variability, the size of the area that must be isolated and the containment methods used will vary from project to project. Large renovation projects could involve one or more rooms and potentially encompass an entire home or building, while small projects may require only a minimal amount of containment. The necessary work area preparations will depend on the size of the surface(s) being disturbed, the method used in disturbing the surface, and the building layout. The certified renovator assigned to a renovation would weigh all of these factors in determining the appropriate work area size and preparation level for that particular situation. For example, repairing a small area of damaged drywall would probably require a smaller work area and minimal preparation while demolition work would probably require a larger work area and extensive preparation in order to prevent the migration of dust and debris from the work area. The certified renovator is responsible for weighing all of these factors and designing a system of containment that ensures that no dust and debris leaves the work area. EPA is proposing to define the term "work area" as the area that the certified renovator establishes to contain all of the dust and debris generated by a renovation, based on the certified renovator's evaluation of the extent and nature of the activity and the specific work practices that will be used.

i. *Interior renovations*. At a minimum, interior work area preparations must include removing or covering all objects in the work area, closing and covering all forced air HVAC ducts in the work area, closing all windows in the work area, closing and sealing all doors in the work area, and covering the floor surface, including installed carpet, with taped-down plastic sheeting in the work area. Doors within the work area that must be used while the job is being performed must be covered with plastic sheeting or other impermeable material in a manner that allows workers to pass through, while confining dust and debris to the work area. In addition, all personnel, tools, and other items, including the exterior of containers of waste, must be free of dust and debris when leaving the work area.

Alternatively, the paths used to reach the exterior of the home must be covered with plastic sheeting or other impermeable material to prevent the

spread of lead contaminated dust and debris outside the work area.

ii. *Exterior renovations.* For exterior projects, work area preparations must include, at a minimum, covering the ground with plastic sheeting or other disposable impermeable material extending out from the edge of the structure a sufficient distance to collect falling paint debris, closing all doors and windows within 20 feet of the outside of the work area on the same floor as the renovation, and closing all doors and windows on the floors below that area. For example, if the renovation involves sanding a 5-foot by 5-foot area of paint on the third floor of a building, and that side of the building is only 40 feet long, all doors and windows on that side of the third floor must be closed, as well as all of the doors and windows on that side of the second and first floors. In situations where other buildings are in close proximity to the work area, or where the work area abuts a property line, the firm performing the renovation may have to take extra precautions in containing the work area to ensure that dust and debris from the renovation does not contaminate other buildings or migrate to adjacent property. In addition, doors within the work area that must be used while the job is being performed must be covered with plastic sheeting or other impermeable material in a manner that allows workers to pass through while confining dust and debris to the work area.

iii. *Prohibited practices.* Under the current regulations for lead-based paint abatement activities, certain practices are prohibited in 40 CFR 745.227(e)(6). These practices are open flame burning or torching of lead-based paint; machine sanding, grinding, abrasive blasting, or sandblasting of lead-based paint except when done with HEPA exhaust control; dry scraping of lead based-paint except around electrical outlets or for any area no more than 2 ft² in any one room, hallway, or stairwell, or for any area no more than 20 ft² on exterior surfaces; and operating a heat gun at 1100 degrees Fahrenheit or higher.

Unlike with abatement, EPA is proposing to allow the use of these practices during renovation activities. The Agency understands that, because these practices are commonly used during renovation work, prohibiting such practices could make certain jobs, such as preparing a surface for new painting, extremely difficult, if not impossible. For example, contractors indicated there may be no practical way to restore old and historic millwork other than open flame burning, and that prohibiting dry scraping and sanding would cause many problems because

wet sanding tends to raise the grain of wood surfaces preventing a smooth finish which consumers demand. The Agency believes that proper training, in combination with appropriate containment and cleanup requirements, is safe, effective, and reliable in preventing the introduction of new lead-based paint hazards. EPA is seeking comment regarding the prohibition of these practices, and specifically whether different prohibitions should apply to interior and exterior renovations.

Although EPA is proposing to allow the use of these practices, other Federal, State, and local requirements may govern these practices and renovations in general. Persons performing renovations should check to see whether other regulations, including the OSHA regulations at 29 CFR 1926.62, apply to their projects.

c. *Waste from renovations.* Renovation projects can generate a considerable amount of waste material. Lead-contaminated building components and work area debris must be handled carefully to prevent the release of lead-contaminated dust and debris. EPA is concerned that allowing the storage of lead-contaminated waste where it may be accessible to residents and others could cause a lead-based paint hazard. Therefore, under proposed § 745.85(a)(3) a firm would be required, at the conclusion of each work day, to store any collected lead-based paint waste from renovation activities under containment, in an enclosure, or behind a barrier that prevents release of dust and debris and prevents access to the waste.

In addition, transporting lead-based paint waste in uncovered vehicles is a possible source of releases in the form of paint chips or dust. The proposal would require renovation firms transporting lead-based paint waste from a work site to contain the waste to prevent identifiable releases, e.g., inside a plastic garbage bag.

In a policy issued on July 31, 2000, EPA's Office of Solid Waste (OSW) clarified that both homeowners and contractors can be eligible for the hazardous waste exclusion under 40 CFR 261.4(b)(1) for lead-based paint wastes generated from renovation and remodeling activities in households, including single and multiple residences. This conclusion was based on the fact that both the definition of "household waste" in 40 CFR 261.4(b)(1) and the Agency's criteria for determining the scope of the exclusion focus on the type of waste generated and the place of generation rather than the identity of the waste generator. Therefore, under this clarification, lead-

based paint waste may be disposed of in municipal solid waste landfill units, as long as those wastes are generated during abatement or renovation and remodeling activities in households (Ref. 56).

On June 18, 2003, EPA amended its regulations to provide an additional option for disposal of this waste (Ref. 57). Having clarified that lead-based paint waste generated through abatements and renovation and remodeling activities in residential settings could be disposed of in municipal solid waste landfill units, EPA also wanted to offer the option of disposing of this waste in construction and demolition (C&D) landfills. Accordingly, EPA amended 40 CFR 258.2 to add definitions for "construction and demolition (C&D) landfill" and "residential lead-based paint waste" and to amend the definition of "municipal solid waste landfill (MSWLF) unit." The primary purpose of these amendments was to allow a C&D landfill to accept residential lead-based paint waste without becoming a municipal solid waste landfill unit and having to comply with RCRA requirements for such units.

When disposing of waste from renovation activities, the certified renovator should follow all applicable Federal, State, and local requirements.

d. *Cleaning the work area.* Under proposed § 745.85(a)(4), a firm would be required to clean the work area to remove visible dust, debris or residue, as well as dust particles too small to be seen by the naked eye. All renovation activities that disturb painted surfaces can produce dangerous quantities of leaded dust. Because very small particles of leaded dust are easily absorbed by the body when ingested or inhaled, a small amount can create a health hazard for young children. Unless this dust is properly removed, renovation and remodeling activities are likely to introduce new lead-based paint hazards. Therefore, careful cleaning is required. Improper cleaning can increase the cost of a project considerably because additional cleaning may be necessary during post-renovation cleaning verification. Although it may not be possible to remove all leaded dust generated by the renovation, it is possible to reduce it below levels that EPA has determined to be hazardous.

The proposal specifies that, upon completion of renovation activities, all paint chips and debris must be picked up. Protective sheeting must be misted and folded dirty side inward, using care to trap any remaining dust. Sheeting

used to isolate contaminated rooms from non-contaminated rooms must remain in place until after the cleaning and removal of other sheeting; this sheeting must then be misted and removed last. Removed sheeting must be either folded and taped shut to seal or sealed in heavy-duty bags and disposed of as waste.

After the sheeting has been removed from the work area, the entire area must be cleaned. The walls, starting from the ceiling and working down to the floor, would have to be vacuumed with a vacuum equipped with a HEPA filter or wiped with a damp cloth. The proposal would require that all remaining surfaces and objects in the work area, including floors, furniture and fixtures, be thoroughly vacuumed with a vacuum equipped with a HEPA filter. When cleaning carpets, the HEPA-equipped vacuum must be equipped with a beater bar to aid in dislodging and collecting deep dust and lead from carpets. The beater bar must be used on all passes on the carpet face during dry vacuuming. Where feasible, floor surfaces underneath a rug or carpeting must also be thoroughly vacuumed with a HEPA-equipped vacuum. This cleaning step is intended to remove as much dust and remaining debris as possible.

EPA requests comment on whether the rule should allow the use of vacuums other than vacuums equipped with HEPA filters. HEPA filters were first developed by the U.S. Atomic Energy Commission during World War II to capture microscopic radioactive particles that existing filters could not remove. HEPA filters have the ability to capture particles of 0.3 microns with 99.97% efficiency. Particles both larger and smaller than 0.3 microns are easier to catch. Thus, HEPA filters capture these particles with 100% efficiency. Available information indicates that lead particles generated by renovation activities range in size from over 20 microns to 0.3 microns or less (Ref. 58). It has been suggested that vacuums not equipped with HEPA filters fail to capture smaller lead particles, and that these vacuums are more likely to recirculate these particles to the air instead. EPA is concerned that the unintended release of lead particles into the air during cleaning activities may not only cause unintended dust lead hazards in the work area, but that it could impact other areas of the dwelling unit. EPA requests comment on whether there are other vacuums that have the same efficiency at capturing the smaller lead particles as HEPA-equipped vacuums, along with any data that would support this performance equivalency and whether this

performance specification is appropriate for leaded dust cleanup. EPA also requests comment on whether the rule should allow other types of vacuums in addition to HEPA-equipped vacuums, given that the OSHA Lead in Construction standard, at 29 CFR 1926.62(h)(4), requires that vacuums be equipped with HEPA filters where vacuums are used.

After vacuuming, all surfaces and objects in the work area, except for walls and carpeted or upholstered surfaces, must be wiped with a damp cloth. Uncarpeted floors must be thoroughly mopped using a 2-bucket mopping method that keeps the wash water separate from the rinse water, or using a wet mopping system with disposable absorbent cleaning pads and a built-in mechanism for distributing or spraying cleaning solution from a reservoir onto a floor.

These special cleaning methods and procedures are typically not standard operating procedure for general home improvement contractors. Therefore, this proposal seeks to train renovators and establish work practice standards that renovators must follow to ensure no lead-based paint hazards are introduced as a result of a renovation.

When cleaning following an exterior renovation, under the proposal all paint chips and debris must be picked up. Protective sheeting used for containment must be misted with water. All sheeting must be folded carefully from the corners or ends to the middle to trap any remaining dust. The sheeting must be disposed of as waste.

EPA invites comment on all aspects of its proposed work practice standards. EPA is especially interested in studies showing the effectiveness of each component of its proposed work practices, as well as the effectiveness of these components in combination. As noted in the Draft Economic Analysis for this proposed rule, discussed in greater detail in Unit VIII.A., the Agency assumes that the specified combination of warning signs, containment barriers, cleaning measures, and the post-renovation cleaning verification process discussed in the next section, taken together, will result in lead dust levels at or below the dust-lead hazard standards established at 40 CFR 745.65(b). The available data, however, does not support a quantitative assessment of the independent efficiency of each of these measures.

E. Cleaning Verification

1. *Background.* The goal of this proposed rule is to ensure that lead-based paint hazards are not created and left behind after residential renovations.

To achieve this goal, EPA has outlined training requirements to provide renovators with information and techniques on how to minimize the lead dust they produce during renovation activities and the appropriate methods for cleaning the work area after a renovation has been completed. The Agency has also proposed a series of work practice standards that must be followed during renovations. In addition, to achieve the goal of ensuring that residential renovations do not increase exposure to lead-based paint hazards, EPA has determined that additional cleaning verification procedures are necessary.

However, requiring dust clearance sampling after each renovation project, as is done for abatements, would be problematic for several reasons. Dust clearance sampling, which is required after abatements, may be very expensive. The costs can be attributed to two major factors: the cost of trained personnel to collect the samples and the cost of the laboratory analysis. EPA estimates the cost of three dust samples to be approximately \$160 to collect and analyze. If EPA were to require dust clearance sampling after every renovation project, it would make up a significant portion of the cost of smaller projects. More information on the costs of dust clearance sampling can be found in Unit VIII.A. and in EPA's draft economic analysis of the impacts of this proposal (Ref. 59). In addition, dust clearance sampling takes a great deal of time. Laboratory results may not be available for several days, during which time the work area cannot be re-occupied.

On the other hand, a visual inspection, while less expensive and less time-consuming than dust clearance sampling, does not provide sufficient assurance that the renovation activities have not increased the potential for exposure to lead-based paint hazards. Recent studies indicate that visual inspection alone is not a reliable and effective method for identifying the presence of a lead-based paint hazard after cleaning (Ref. 60).

In addition, one of the significant difficulties associated with requiring clearance after renovation projects is the difference in focus and scope between abatement projects and renovations. The purpose of an abatement project is to permanently eliminate lead-based paint and lead-based paint hazards. It is therefore perfectly appropriate to require an assurance that the abatement firm has, in fact, eliminated these hazards. However, renovations may be performed for many reasons, most of which have nothing to do with

eliminating lead-based paint hazards. Moreover, if clearance using dust wipes were required after every renovation job, it could have the effect of holding the renovation firm responsible for abating all dust-lead hazards, including such hazards that may have existed in the area before the renovation commenced. During the public meetings in 1998 and 1999, as well as during the SBREFA panel process, discussed in Unit VIII.C., contractors pointed out that, if post-renovation clearance sampling were required, the contractors would have to protect themselves by collecting pre-renovation dust samples, to ensure that they would not be held liable for pre-existing hazards. EPA understands this concern and has attempted to address it by finding an alternative to dust clearance sampling. The goal of this proposal is to ensure any potential lead-based paint hazards created during the actual renovation project are cleaned up by the renovation firm. EPA requests comment on all of the available methods for achieving this goal, including visual inspections, dust clearance testing, and the proposed post-renovation cleaning verification process described below. EPA also requests comment on whether any cleanup verification is necessary, given the proposed cleaning requirements described above.

2. *Disposable Cleaning Cloth/White Glove Study.* EPA began looking for an alternative to dust clearance sampling that would be quick, inexpensive, reliable, and easy to perform. EPA conducted a series of studies using commercially available disposable cleaning cloths to determine whether variations of a "white glove" test could serve as an effective alternative to dust clearance sampling. White disposable cleaning cloths were used to wipe windowsills and wipe floors, then examined to determine whether dust was visible on the cloth. This determination was made by visually comparing the cloth to a photographic standard that EPA developed to correlate to a level of contamination that is below the dust lead hazard standard in 40 CFR 745.65(b). Cloths that matched the standard were considered to have achieved "white glove."

Initial studies focused on dry, or electrostatic, disposable cleaning cloths (dry cloths). These cloths were used to wipe a windowsill or a section of floor until a cloth had achieved "white glove." Then, dust samples were collected to determine whether the windowsill or floor had also achieved clearance. These studies were conducted both in vacant buildings, where the amount of leaded dust on the surfaces was uncontrolled and no pre-

cleaning was done, and in a controlled laboratory setting. The results of these studies indicate that dry cloths are most effective in predicting clearance through the "white glove" test when the initial lead levels are between 40 $\mu\text{g}/\text{ft}^2$ and 200 $\mu\text{g}/\text{ft}^2$.

EPA then began looking at wet disposable cleaning cloths (wet cloths) as a means to improve the effectiveness of dry cloths. In a controlled setting, the effectiveness of various combinations of dry cloths and wet cloths were tested, using a leaded dust loading of 1,600 $\mu\text{g}/\text{ft}^2$. The first protocol tested used only dry cloths--after "white glove" was achieved, the surface was wiped with two more dry cloths. This protocol led to a false negative error rate of 30%, meaning that in 30% of the cases, "white glove" was achieved, but dust sampling indicated that the surface lead levels exceeded 40 $\mu\text{g}/\text{ft}^2$. This procedure was performed again, and followed by one wiping with a wet cloth. With this protocol, all 12 of the tests performed resulted in levels below the clearance standard, or a false negative error rate of 0%. Finally, the original dry cloth protocol was used, until "white glove" was achieved, and then followed by one mopping with a wet cloth. This simplified protocol achieved a false negative error rate of 10%.

The promising results of this controlled study led to a field test of three potential protocols: Dry cloths to "white glove," dry cloths to "white glove" followed by one wet cloth, and wet cloths to "white glove." This field test was performed in vacant housing units. Lead levels were determined before testing began, but no cleaning was performed. The results of this field test were as follows: On floors, 91.5% of the surfaces that achieved "white glove" using only dry cloths also achieved clearance, while 97.3% of the floors that achieved "white glove" using only wet cloths also achieved clearance. In addition, 10 of the 11 floors where "white glove" was not achieved using dry cloths, and 20 of the 21 floors where "white glove" was not achieved using wet cloths, achieved clearance anyway. Unexpectedly, the protocol using dry cloths to "white glove" followed by one wet cloth was the least successful protocol--the false negative error rate for this protocol was nearly 20%. Windowsills were also tested during this part of the study, but only the all-dry-cloth protocol and the all-wet-cloth protocol were used. For the dry cloth protocol, 96.4% of the sills that achieved "white glove" also achieved clearance, and the one sill that did not achieve "white glove" still passed

clearance. For the wet cloth protocol, all of the sills that achieved "white glove" also achieved clearance, as did the four sills that did not reach "white glove."

The floors in the housing units tested in this portion of the study were in vacant buildings that had high levels of accumulated lead that was often encrusted on the surface as part of a hard, gummy layer. In the case where false negative results were seen, it was primarily due to the moisture from the wet cloth loosening lead after the "white glove" was achieved with the wet cloth.

The final report for these studies and the earlier studies, entitled *Electrostatic Cloth and Wet Cloth Field Study in Residential Housing*, underwent an external peer review process. The final report, including the Quality Assurance Project Plan, the photographic comparison standards, the comments from the peer reviewers, and EPA's response to the comments from the peer reviewers, has been placed into this docket (Ref. 61). EPA also requests comments on the conclusions drawn from this study, as well as on the study itself. EPA is particularly interested in information or data on the Agency's conclusions that this approach is practical and provides reliable information on removal of lead hazards and that renovators will be able to use a reference card to properly assess when "white glove" is achieved.

3. *Steps for cleaning verification.* Based on these study results, EPA is not proposing to require dust clearance sampling after any renovations. Instead, for interior renovations, EPA is proposing to require an additional post-cleaning verification step following the visual inspection. This step involves wiping the interior windowsills and floors with a wet disposable cleaning cloth and, if necessary, a dry disposable cleaning cloth, and comparing it to a cleaning verification card that EPA will develop and distribute. A prototype of this card has been placed in the docket (Ref. 62). The purpose of this step is to verify that horizontal surfaces where dust will settle have been adequately cleaned. The specific post-renovation cleaning verification requirements are proposed as follows.

a. *Visual inspection.* A certified renovator must perform a visual inspection to determine whether visible dust, debris, or residue is still present in the work area. If such dust, debris, or residue is present, these conditions must be eliminated. If the renovation involved is an interior renovation, these conditions must be eliminated by re-cleaning the work area as directed in proposed § 745.85(a)(4). After an

exterior work area passes the visual inspection, the project has been properly completed and the warning signs may be removed. After an interior work area passes the visual inspection, the cleaning of each windowsill and uncarpeted floor within the work area must be verified as discussed in this Unit.

b. *Interior windowsills.* For interior renovations, after the work area has been cleaned and has passed the visual inspection, a certified renovator must wipe each interior windowsill (also known as a stool) in the work area with a wet disposable cleaning cloth. All wet cloths used in the post-renovation cleaning verification process must be at least damp to the touch, and must remain so during the process. After wiping each windowsill with a wet cloth, the certified renovator must compare the cloth to the cleaning verification card. If the cloth matches the card, that windowsill has passed the post-renovation cleaning verification. If the cloth does not match the card, that windowsill must be re-cleaned in accordance with proposed § 745.85(a)(4)(ii). After the windowsill has been re-cleaned, the certified renovator must wipe that windowsill with a new wet cloth, or the same one folded so that an unused surface is exposed, and compare it to the cleaning verification card. If the cloth matches the card, that windowsill has passed. If not, the windowsill must be re-cleaned again and left to dry.

To perform this verification on a windowsill, the certified renovator must wait for one hour after the surface has been re-cleaned or until the surface has dried, whichever is longer. Then, the certified renovator must wipe the windowsill with a dry disposable cleaning cloth and compare it to the cleaning verification card. This process must be repeated until a dry cloth, or a folded section of a dry cloth, that has wiped the windowsill matches the cleaning verification card. At that point, that windowsill has passed the post-renovation cleaning verification process. Each windowsill in the work area must pass the post-renovation cleaning verification process.

EPA considered requiring that certified renovators repeat the process of cleaning and then wiping with a wet disposable cleaning cloth until each windowsill and each section of uncarpeted floor within the work area achieved post-renovation cleaning verification with a wet cloth. The disposable cleaning cloth studies suggest that it is possible that some floors may never achieve verification with a wet cloth. Verification on floors

that are in poor condition or floors with built-up layers of grime may be particularly difficult. In the second field study of disposable cleaning cloths, there were 21 floors that did not achieve "white glove," even after 15 separate wipings with a fresh wet cloth. However, 20 of these floors passed clearance through dust sampling.

Therefore, for each windowsill and for those sections of the floor that did not achieve post-renovation cleaning verification using the wet cloths, EPA is proposing to require that after the second re-cleaning, the surface be allowed to dry, and then a dry disposable cleaning cloth verification process be performed. The dry cloth may be less likely to dissolve additional layers of built-up grime, which may have contributed to the phenomenon of floors passing clearance, but not achieving "white glove" with the wet cloths. In addition, lead dust trapped in built-up layers of grime is not likely to be the result of a current renovation activity.

c. *Floors.* After the windowsills in the work area have passed the post-renovation cleaning verification, a certified renovator must wipe the floor surfaces in the work area with a wet disposable cleaning cloth. Wiping of floors must be done with an application device consisting of a long handle and a head to which the wet cloth is attached. This will help the certified renovator apply fairly constant pressure over the floor surface. Again, the wet cloth must remain at least damp to the touch throughout this process. During the field studies, the cloths tended to dry out as they were used over large areas, or on more porous floor surfaces. As the cloths dry out, they pick up less dust. To ensure that the cloths remained damp during the field studies, the persons performing the wiping were directed to use each wet cloth on no more than 40 ft² of floor area (Ref. 63). EPA is proposing to require the same for the purposes of post-renovation cleaning verification, but requests comment on whether this is an appropriate size cut-off. If the floor surface in the work area exceeds 40 ft², the certified renovator would divide the floor surface into sections, each section being less than 40 ft², and perform the post-renovation cleaning verification on each section separately.

If the wet cloth used to wipe a particular section of floor matches the cleaning verification card, that section has passed the post-renovation cleaning verification. If, however, on the first wiping of a section of the floor surface, the wet cloth does not match the cleaning verification card, the surface of

that section of the floor must be re-cleaned in accordance with proposed § 745.85(a)(4)(ii). After re-cleaning, the renovator must wipe that section of the floor again using a new wet cloth. If the wet cloth matches the cleaning verification card, that section of the floor has passed. If the wet cloth does not match the verification card, that section of the floor must be re-cleaned as directed in proposed § 745.85(a)(4)(ii) and left to dry.

For those sections of the floor that did not achieve post-renovation cleaning verification using the wet cloths, the certified renovator must wait for 1 hour after the floor has been re-cleaned or until the floor has dried, whichever is longer. Then, the certified renovator must wipe those sections of the floor with a dry disposable cleaning cloth and compare it to the cleaning verification card. This wiping must also be performed using an application device with a long handle and a head to which the dry cloth is attached. This process must be repeated until a dry cloth that has wiped all of the sections of the floor that have not yet passed verification matches the cleaning verification card. At that point, the entire floor has passed the post-renovation cleaning verification process and the warning signs may be removed.

EPA believes that adherence to this post-renovation cleaning verification protocol, in combination with the proposed training, containment, and cleaning requirements is a safe, reliable and effective system of ensuring that renovation activities do not result in an increased risk of exposure to lead-based paint hazards. In the great majority of cases, windowsills and floors that achieve post-renovation cleaning verification will also pass dust clearance sampling. EPA specifically requests comment on the elements of the proposed protocol, especially with regard to their efficacy and utility. EPA also requests comments on whether the reliability of the cleaning verification would be improved if it were performed by an individual who had not previously participated in the renovation activity, for example, another certified renovator in the renovation firm.

d. *Carpets.* As a final step in the renovation process, EPA is proposing that after containment is removed, the work area be thoroughly cleaned. For floors, the proposal would require vacuuming with a HEPA-equipped vacuum. When cleaning carpets, the vacuum would have to be equipped with a beater bar to aid in dislodging and collecting leaded dust. EPA believes that use of the HEPA-equipped vacuum

equipped with a beater bar to dislodge dust and debris is the most effective cleaning practice for carpets, and that an effective cleaning verification method for carpets is not available. EPA is not proposing that the "white glove" cleaning verification protocol be used on carpets after they have been cleaned using a HEPA-equipped vacuum equipped with a beater bar. EPA did not verify use of the "white glove" protocol on carpets. In addition, there are questions about the validity of dust clearance sampling on carpeted floors, even though such sampling is required by EPA after abatements and by HUD after interim controls. In its final rule for hazard and clearance standards for the Title X program (Ref. 24), the Agency included standards for carpeted floors, even though the proposed floor standards would have applied only to bare floors (Ref. 64). The Agency initially was concerned that there was a lack of data on the relative performance of sampling methods for carpets, given that various studies had used different sampling techniques (e.g., the Baltimore Repair and Maintenance Study's "BRM" vacuum (Ref. 65), the Comprehensive Abatement Performance Pilot Study's "Blue Nozzle" vacuum (Ref. 66), and standard dust wipes). Additionally, the Agency did not have adequate data on the effectiveness of carpet cleaning techniques that would be needed to establish a dust clearance level for carpeted floors. Consequently, there were problems establishing a dust lead level on a wipe that would independently indicate that the carpet had been sufficiently cleaned. This problem was exacerbated by the wide variety of carpet types and conditions that would likely be encountered in residential units.

The Agency changed its position in the final lead hazard standards rule as a result of commenters' concerns that many housing units contained carpeting and that, without a standard, such units could not be assessed for the presence of lead hazards from floor dust. Based upon data available to the Agency at that time (Ref. 67), EPA estimated that approximately 54 million housing units built prior to 1978 contained some wall-to-wall carpeting and, of these, 47 million had such carpeting in living rooms and 46 million in bedrooms (i.e., rooms in which children reside and play frequently). Agreeing with these concerns, the Agency determined that the floor standards (using dust wipes) should apply to both bare and carpeted floors in order that all floors would be addressed in lead hazard screens, risk assessments, and abatements.

In making this determination, EPA did not specifically consider the question of whether both the hazard and the clearance floor standards should apply to carpeted floors. Because the hazard and clearance standards were numerically equal, even though they served different purposes and uses, EPA chose to apply both standards to carpeted and uncarpeted floors.

The decision to apply the clearance standard to carpeted floors ultimately had little consequence, given the context in which clearance standards are used—namely, to ensure that sufficient cleanup has been performed after an abatement. Typically, in abatement situations, carpets that are in poor condition or are known to be highly contaminated are removed and disposed of. Where carpets are not replaced, they are cleaned according to specified criteria (Ref. 27). In general, carpets are acknowledged to be potential traps of leaded dust and great care is taken to replace or thoroughly clean them in order to ensure that, once the abatement is concluded, the housing unit is cleanable so that the benefits of the abatement will continue as long as routine cleaning is performed. Consequently, EPA believes that it is this special attention to carpets that ensures that they are sufficiently clean, rather than reliance upon only a post-abatement wipe clearance sample.

e. Optional use of clearance testing. Some renovators or homeowners may choose to perform clearance at the completion of renovation activities instead of the post-renovation cleaning verification described in proposed § 745.85(b). If so, dust sampling for clearance would have to be performed by a certified inspector, risk assessor, or dust sampling technician, who would be responsible for collecting dust samples, sending them to an EPA-recognized laboratory, and comparing the results to the clearance levels in accordance with 40 CFR 745.227(e)(8). EPA recommends that the renovation work area be re-cleaned if the home fails the clearance test. It is a good idea to specify in the renovation contract who is responsible for this re-cleaning if the home fails the clearance test. EPA welcomes comment on this part of the proposal.

F. State Renovation Model Program and Authorization Process

Recognizing the importance of EPA's State partners in achieving the goal of eliminating lead-based paint hazards in housing, Congress specifically directed EPA to establish model State programs and a process for authorizing States to operate lead-safe programs in lieu of the

Federal program. As it did in the regulations at 40 CFR part 745, subpart L, for lead-based paint activities, the Agency is also seeking to provide Federally recognized Indian Tribes the opportunity to apply for and receive program authorization similar to that available to States. Providing Indian Tribes with this opportunity is consistent with EPA's Policy for the Administration of Environmental Programs on Indian Reservations (Ref. 17).

Accordingly, EPA is proposing to allow interested States, Territories, and Indian Tribes the opportunity to apply for, and receive authorization to, administer and enforce all of the elements of the new subpart E, as amended. States, Territories and Tribes may choose to administer and enforce just the existing requirements of subpart E, the pre-renovation education elements, or all of the requirements of the proposed subpart E, as amended. Under this proposal, EPA would not authorize a State, Territorial, or Tribal program that sought only the authority to administer and enforce the training, certification, accreditation, and work practice requirements of this proposal, and not the pre-renovation education provisions of subpart E. Because this proposal allows and encourages renovation firms to use the existing pamphlet acknowledgment process to obtain information about occupant age and rental status, in order to determine whether the property would be covered by these regulations, and because the pre-renovation education provisions are an integral part of ensuring that consumers have the information they need to make informed decisions about renovation practices in their homes, EPA believes that authorizing States, Territories, and Tribes to administer all of the regulations applicable to renovations is the best approach. However, some States have already been authorized to administer and enforce the existing pre-renovation education provisions in 40 CFR part 745, subpart E. EPA believes that those States should be able to continue administering their pre-renovation education programs without being required to add the training, certification, accreditation, and work practice elements of this proposal. Therefore, EPA is proposing to allow all States, Territories and Tribes to apply for authorization to administer and enforce only the pre-renovation education requirements of 40 CFR part 745, subpart E. Because there are no authorized jurisdictions in the opposite position, no existing State, Territorial, or Tribal program will have to choose

between adding more program responsibilities or relinquishing its authorization.

For the purpose of authorizing State, Territorial, and Tribal programs, EPA is proposing to use the existing procedures codified in 40 CFR part 745, subpart Q, with the amendments of this proposal setting forth the specific elements that would be required of a program seeking authorization to administer and enforce the training, certification, accreditation, and work practice requirements of this proposal. In accordance with the current process for authorization, States, Territories and Tribes may not choose only to administer, but not enforce, the provisions of subpart E, nor may they selectively choose to administer and enforce only the accreditation or certification provisions, but not the work practice standards, for renovations.

States, Territories, and Tribes seeking authority to administer and enforce the provisions of this proposal must obtain public input, then submit an application to EPA. Existing 40 CFR 745.324 describes the process for applying for authorization. Applications must contain a number of items, including a description of the State, Territorial, or Tribal program, copies of all applicable statutes, regulations, and standards, and a certification by the State Attorney General, Tribal Counsel, or an equivalent official, that the applicable legislation and regulations provide adequate legal authority to administer and enforce the program. The program description must demonstrate that the State, Territorial, or Tribal program is at least as protective as the Federal program. In this case, the Federal program consists of the requirements for training, certification, and accreditation and the work practice standards in this proposal.

To be eligible for authorization to administer and enforce the training, certification, accreditation, and work practice requirements of this proposal, EPA is proposing to require that State, Territorial, and Tribal renovation programs contain certain minimum elements. These minimum elements would be very similar to the minimum elements currently codified in 40 CFR 745.326(a) for lead-based paint activities. In order to be authorized, State, Territorial, or Tribal programs would have to have procedures and requirements for the accreditation of training programs, which could be as simple as procedures for accepting training provided by an EPA-accredited provider, or a provider accredited by another authorized State, Territorial, or Tribal program. Procedures and

requirements for the certification of renovators would also be necessary. At a minimum, these must include a requirement that certified renovators have taken accredited training, and procedures and requirements for recertification. State, Territorial, and Tribal programs applying for authorization would also be required to establish work practice standards for renovations that ensure that renovations are conducted only by certified renovation firms and the renovations are conducted using lead-safe work practices at least as protective as those of the Federal program. As is the current practice with lead-based paint activities, EPA will not require State, Territorial, or Tribal programs to certify both firms and individuals that perform renovations. States, Territories and Tribes may choose to certify either firms or individuals, so long as the individuals that perform the duties of renovators are required to take accredited training.

EPA encourages States, Territories, and Tribes that may be considering establishing their own renovation programs to keep reciprocity in mind as they move forward. The benefits to be derived from reciprocity arrangements with the Federal program and other authorized jurisdictions include a potential cost-saving from reducing duplicative activity and the development of a professional renovation workforce more quickly, thus providing maximum flexibility to State, Territorial, or Tribal residents. In addition, the Agency encourages States, Territories and Tribes to consider the use of existing certification and accreditation procedures as they develop their programs. These existing programs need not be limited to lead-based paint. For example a State may choose to add lead-safe renovation requirements to their existing contractor licensing programs.

V. New Renovation-Specific Pamphlet

The existing regulations at 40 CFR part 745, subpart E, require each person who performs for compensation a renovation of target housing to provide a lead hazard information pamphlet to owners and occupants of such housing prior to commencing the renovation. The term "pamphlet" is defined at 40 CFR 745.83 to mean, in part, the EPA pamphlet developed under TSCA section 406(a) for use in complying with this and other regulations under TSCA Title IV and Title X. Until recently, the only pamphlet developed under TSCA section 406(a) was *Protect Your Family from Lead in Your Home* (Ref. 20). EPA has now developed another pamphlet

more specific to lead dust hazards created during renovation activities to be distributed to occupants before these activities commence. EPA intends to announce in a future **Federal Register** notice the availability of this new pamphlet, entitled *Protect Your Family from Lead During Renovation, Repair & Painting* (the "RRP" pamphlet) for notice and comment.

The RRP pamphlet is very similar to the original PYF pamphlet in that both pamphlets contain information on lead human health effects, human exposure pathways, lead testing, and the location of additional information resources (Ref. 68). However, after careful analysis of available research data related to lead-based paint and renovation activities, EPA has decided to place more emphasis on potential hazards caused by disturbing lead-based paint during renovation activities. This new emphasis offers the public additional information regarding lead-safe work practices which can greatly reduce the creation and release of leaded dust. Because the RRP pamphlet was developed specifically to inform the public about the potential lead hazards that can be caused by renovation activities, EPA is proposing to require the RRP pamphlet to be handed out prior to renovation activities instead of the PYF pamphlet. This pamphlet contains information on lead-based paint hazards specific to renovation activities, as well as information on how to select a renovation firm.

As an alternative to the RRP pamphlet, an authorized State or Tribal program could distribute an alternate pamphlet that had been reviewed and approved by EPA in accordance with 40 CFR 745.326. The alternate pamphlet would have to contain renovation-specific information similar to that in the RRP pamphlet, would have to meet the content requirements prescribed by TSCA section 406(a), and would have to be in a format that was readable to the diverse audience of housing owners and occupants in that State or Tribe.

EPA therefore proposes to amend the definition of "pamphlet" in 40 CFR 745.83 to refer specifically to the RRP pamphlet. The effect of this amendment would be to require that renovators who are required under 40 CFR part 745, subpart E, to distribute an information pamphlet, distribute the RRP pamphlet rather than the PYF pamphlet.

In addition, to maintain consistency among the Federal, State, and Tribal pre-renovation notification program requirements, EPA proposes to amend 40 CFR 745.326 to require authorized State or Tribal programs to use the RRP pamphlet or create and distribute an

alternate pamphlet. Alternate pamphlets would be required to contain renovation-specific information similar to that in *Protect Your Family from Lead During Renovation, Repair & Painting*, meet the content requirements prescribed by section 406(a) of TSCA, and be in a format that is readable to the diverse audience of housing owners and occupants in that State or Tribe.

VI. Effective Dates

A. Requirements for Renovation Activities

Interested States, Territories and Indian Tribes could begin applying for authorization of renovation programs from EPA as soon as the final rule is promulgated. Also, after the final rule is promulgated, providers of courses that cover lead-safe work practices for renovations could continue to offer these courses, but they would not be permitted to advertise these courses for EPA certification purposes until they receive accreditation from EPA.

EPA would begin accepting training provider accreditation applications for renovator and dust sampling technician initial and refresher courses 1 year after promulgation of a final rule. The reason for the delay is to provide interested States, Territories and Indian Tribes 1 year to develop, or begin developing, renovation-specific work practice standards and accreditation, training, and certification programs. EPA believes the nation's experience in implementing the lead-based paint activities program regulations at 40 CFR part 745, subpart L should help everyone involved, including States, Territories, Tribes, the regulated community, and EPA, move more quickly towards implementing renovation programs. Thus, EPA is not proposing to make training programs for the federal program wait 2 years before they can receive accreditation, as EPA did for the subpart L regulations. On the other hand, EPA is concerned about the duplication of effort that could occur, and the additional costs that could be incurred by the regulated community, if EPA begins accrediting training providers and certifying firms in jurisdictions that are also working towards implementing their own programs. Training providers, firms, and individuals working in such jurisdictions could end up having to become accredited or certified by both EPA and the State, Territory or Tribe within a fairly short period of time. EPA requests comment on the feasibility of developing State, Territorial, or Tribal programs and getting them authorized within a year after EPA promulgates a final rule. EPA also requests comment

on ways to avoid multiple accreditations and certifications in jurisdictions that are unable to receive authorization for their programs within the first year after EPA promulgates a final rule. In addition, EPA requests comment on whether any implementation delay is necessary, given that EPA accreditation and certification would be valid in any State or Indian Tribal area that does not have a renovation program authorized under 40 CFR part 745, subpart Q.

Firm certification applications would be accepted by EPA starting 6 months after EPA begins accepting training provider accreditation applications, or 18 months after the promulgation date of the final rule. The work practice standards would become effective 2 years after the promulgation date of the final rule, at which time all covered renovations would have to be performed in accordance with those standards by certified renovators and trained workers.

As discussed in Unit IV.B., EPA is proposing to initially apply the training, certification, accreditation, and work practice requirements of this proposal to pre-1960 rental target housing, pre-1960 owner-occupied target housing where a child under age 6 resides, and any target housing where a child under age 6 with a blood lead level that equals or exceeds 10 µg/dL, or any lower State or local government level of concern, resides. Those requirements would apply 1 year later to rental target housing built between 1960 and 1978, and owner-occupied target housing built between 1960 and 1978 where a child under age 6 resides. Allowing for the time given to interested States, Territories and Tribes to develop programs, the first phase of this regulation would be fully effective 2 years after the date of promulgation of a final rule. The second phase of this regulation would take effect 3 years after a final rule is promulgated.

B. Renovation-specific Pamphlet

EPA is also proposing to phase in the requirement to use the new RRP pamphlet discussed in Unit V. For the purpose of complying with the Federal Pre-Renovation Education Rule, in the first 6 months after this regulation is promulgated, persons performing renovations could distribute either the PYF or the new RRP pamphlet. After 6 months, only the RRP pamphlet could be used to comply with the Pre-Renovation Education Rule in jurisdictions where the Federal program is in effect.

However, EPA recognizes that approved State, Territorial, and Tribal Pre-Renovation Education programs, or

jurisdictions developing programs, may need time to amend their programs and either adopt the RRP pamphlet or develop and obtain approval for an alternate pamphlet. EPA has worked with the existing State programs to develop an acceptable time frame for meeting the new requirements. In doing so, EPA identified three potential non-Federal program categories: (1) Programs authorized prior to the effective date of the final rule, (2) potential new programs with an application submitted but not approved prior to the effective date of the final rule, and (3) potential new programs that might apply after the effective date of the final rule. The time frame for compliance for each category is set forth in proposed 40 CFR 745.326(b)(3).

In sum, such programs authorized prior to the effective date of the final rule would demonstrate compliance in the first § 745.324(h) report submitted at least 2 years after the effective date of the final rule. Potential new programs with an application submitted but not approved prior to the effective date of the final rule would demonstrate compliance in the first § 745.324(h) report submitted at least 2 years after the effective date of the final rule or by amending their application to comply with this amendment. Potential new programs that might apply after the effective date of the final rule would be required to demonstrate compliance with the amendment at the time of their application to EPA for program approval.

VII. References

The following is a list of the documents that are specifically referenced in this proposed rule and placed in the public docket that was established under Docket ID number EPA-HQ-OPPT-2005-0049. For information on accessing the docket, refer to the **ADDRESSES** unit at the beginning of this document.

1. U.S. Environmental Protection Agency (USEPA). Sample acknowledgment form. (2005).
2. Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X) (Public Law 102-550).
3. U.S. Department of Health and Human Services (HHS), Public Health Service (PHS), Centers for Disease Control and Prevention (CDC). Preventing Lead Poisoning in Young Children; A Statement by the Centers for Disease Control and Prevention (August 2005).
4. HHS, PHS, Agency for Toxic Substances and Disease Registry (ATSDR). Toxicological Profile for Lead (July 1999).

5. USEPA, Office of Research and Development (ORD). Air Quality Criteria for Lead, First External Review Draft (EPA/600/R-05/144aA, December 2005)
6. USEPA. Integrated Risk Information System; Lead and compounds (inorganic) (CASRN 7439-92-1) (July 8, 2004).
7. U.S. Consumer Product Safety Commission. **Federal Register** (42 FR 44199, September 1, 1977, as amended at 43 FR 8515, March 2, 1978).
8. U.S. Department of Labor (USDOL), Occupational Safety and Health Administration (OSHA). Final Standard for Occupational Exposure to Lead. **Federal Register** (43 FR 52952, November 14, 1978).
9. USDOL, OSHA. Lead Exposure in Construction; Interim Final Rule. **Federal Register** (58 FR 26590, May 4, 1993).
10. USEPA. Control of Lead Additives in Gasoline; Final Rule. **Federal Register** (38 FR 33734, December 6, 1973).
11. USEPA. Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper; Final Rule. **Federal Register** (56 FR 26460, June 7, 1991).
12. U.S. Department of Health and Human Services (HHS), Public Health Service (PHS), Centers for Disease Control and Prevention (CDC). Preventing Lead Poisoning in Young Children; A Statement by the Centers for Disease Control and Prevention (October 1991).
13. Alliance to End Childhood Lead Poisoning. Preventing Childhood Lead Poisoning: The First Comprehensive National Conference; Final Report. (October 6, 7, 8, 1991).
14. President's Task Force on Environmental Health Risks and Safety Risks to Children. Eliminating Childhood Lead Poisoning: A Federal Strategy Targeting Lead Paint Hazards (February 2000).
15. HHS, PHS, CDC. Preventing Lead Exposure in Young Children: A Housing Based Approach to Primary Prevention of Lead Poisoning: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention (October 2004).
16. USEPA. Lead; Requirements for Lead-Based Paint Activities in Target Housing and Child-Occupied Facilities; Final Rule. **Federal Register** (61 FR 45778, August 29, 1996).
17. USEPA. EPA Policy for the Administration of Environmental Programs on Indian Reservations (November 8, 1984).
18. USEPA. Lead; Fees for Accreditation of Training Programs and Certification of Lead-based Paint Activities Contractors; Final Rule. **Federal Register** (64 FR 31092, June 9, 1999).
19. USEPA. Lead; Notification Requirements for Lead-Based Paint Abatement Activities and Training; Final Rule. **Federal Register** (69 FR 18489, April 8, 2004).
20. USEPA, Consumer Product Safety Commission, U.S. Department of Housing and Urban Development (HUD). Protect Your Family From Lead in Your Home (EPA 747-K-99-001, June 2003).
21. USEPA. Lead Hazard Information Pamphlet; Notice of Availability. **Federal Register** (60 FR 39167, August 1, 1995).
22. HUD, USEPA. Lead; Requirements for Disclosure of Known Lead-Based Paint and/or Lead-Based Paint Hazards in Housing; Final Rule. **Federal Register** (61 FR 9064, March 6, 1996).
23. USEPA. Lead; Requirements for Hazard Education Before Renovation of Target Housing; Final Rule. **Federal Register** (63 FR 29908, June 1, 1998).
24. USEPA. Lead; Identification of Dangerous Levels of Lead; Final Rule. **Federal Register** (66 FR 1206, January 5, 2001).
25. USEPA. Targeted Grants to Reduce Childhood Lead Poisoning; Notice of Funds Availability. **Federal Register** (69 FR 69913, December 1, 2004).
26. HUD. Requirements for Notification, Evaluation, and Reduction of Lead-based Paint Hazards in Housing Receiving Federal Assistance and Federally Owned Residential Property Being Sold (Lead Safe Housing Rule); Final Rule, Conforming Amendments and Corrections. **Federal Register** (69 FR 34262, June 21, 2004).
27. HUD. Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (June 1995).
28. HHS, PHS, CDC. Managing Elevated Blood Lead Levels Among Young Children (March 2002).
29. USEPA. Reducing Lead Hazards When Remodeling Your Home (EPA 747-K-97-001, September 1997).
30. USEPA. Lead Exposure Associated With Renovation and Remodeling Activities: Phase I, Environmental Field Sampling Study (EPA 747-R-96-007, May 1997).
31. USEPA. Lead Exposure Associated With Renovation and Remodeling Activities: Phase II, Worker Characterization and Blood-Lead Study (EPA 747-R-96-006, May 1997).
32. USEPA. Lead Exposure Associated With Renovation and Remodeling Activities: Phase III, Wisconsin Childhood Blood-Lead Study (EPA 747-R-99-002, March 1999).
33. USEPA. Report of the Small Business Advocacy Review Panel on the Lead-based Paint Certification and Training; Renovation and Remodeling Requirements (March 3, 2000).
34. McMillan Associates. Response to SBREFA Panel Recommendations for Further Analysis of Existing Phase III Data (August 6, 2001).
35. HHS, PHS, CDC. Children with Elevated Blood Lead Levels Attributed to Home Renovation and Remolding Activities--New York, 1993-1994. Morbidity and Mortality Weekly Report (45(51); 1120-1123, January 3, 1997).
36. Reissman, Dori B., Thomas D. Matte, Karen L. Gurnite, Rachel B. Kaufmann, and Jessica Leighton. "Is Home Renovation or Repair a Risk Factor for Exposure to Lead Among Children Residing in New York City?" *Journal of Urban Health: Bulletin of the New York Academy of Medicine*. Vol. 79, No. 4, 502-511, (December 2005).
37. USEPA. Lead Exposure Associated With Renovation and Remodeling Activities: Phase IV, Worker Characterization and Blood-Lead Study of R&R Workers Who Specialize in Renovation of Old or Historic Homes (EPA 747-R-99-001, March 1999).
38. USEPA. Lead Exposure Associated with Renovation and Remodeling Activities; Final Summary Report (EPA 747-S-00-001, January 2000).
39. USEPA. TSCA Section 402(c) Lead Exposure Reduction Stakeholder Meeting for the Proposed Renovation and Remodeling Rule (December 7, 1998).
40. USEPA. Round Table Discussion of TSCA Section 402(c) Lead Exposure Reduction Proposed Renovation and Remodeling Rule (March 8, 1999).
41. USEPA. Lead Programs Meeting, Meeting Summary (September 25-26, 2000).
42. USEPA. Summary of Discussion with State, Local, and Tribal Government Representatives (May 1, 2003).
43. USEPA. Summary of Discussion with State, Local, and Tribal Government Representatives (May 15, 2003).
44. USEPA. Summary of Discussion with Industry Stakeholders (May 9, 2003).
45. USEPA. Summary of Discussion with Industry Stakeholders (May 29, 2003).
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47. NIST. Spot Test Kits for Detecting Lead in Household Paint, a Laboratory Evaluation (NISTIR 6398, May 2000).

48. USEPA. Estimates of Concentration of Lead in Paint by Age of Housing (October 2005).

49. USEPA. Lead; Requirements for Hazard Education Before Renovation of Target Housing; Proposed Rule. **Federal Register** (59 FR 11108, March 9, 1994).

50. ASTM International. Standard Practice for Evaluating the Performance Characteristics of Qualitative Chemical Spot Test Kits for Lead in Paint (E 1828-01).

51. USEPA. Draft Recordkeeping Checklist for Firms (December 2005).

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53. HUD, Office of Policy Development and Research. The HUD Lead-Based Paint Abatement Demonstration (FHA) (August 1991).

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56. USEPA, Office of Solid Waste (OSW). Memorandum from Elizabeth A. Cotsworth, Director, "Regulatory Status of Waste Generated by Contractors and Residents from Lead-Based Paint Activities Conducted in Households" (July 31, 2000).

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60. National Center for Healthy Housing. An Evaluation of the Efficacy of the Lead Hazard Reduction Treatments Prescribed in Maryland Environmental Article 6-8 (April 30, 2002).

61. USEPA. Electrostatic Cloth and Wet Cloth Field Study in Residential Housing (September 2005).

62. USEPA. Draft Cleaning Verification Card (2005)

63. USEPA, OPPT. Quality Assurance Project Plan (QAPP) for the Field Study; Appendix A - Standard Operating Procedure (SOP) for Using the Dry Electrostatic Cloth and Mop to Collect Lead Dust (July 12, 2004).

64. USEPA. Lead; Identification of Dangerous Levels of Lead; Proposed Rule. **Federal Register** (63 FR 30302, June 3, 1998).

65. USEPA. Lead-Based Paint Abatement and Repair and Maintenance Study in Baltimore: Pre-Intervention Findings. (EPA 747-R-95-012, August 1996).

66. USEPA. Comprehensive Abatement Performance Pilot Study, Volume 1: Results of Lead Data Analyses (EPA 747-R-93-007, February 1995).

67. U.S. Census Bureau. Current Housing Reports, Series H150/97, American Housing Survey for the United States (1997).

68. USEPA. Protect Your Family from Lead During Renovation, Repair, & Painting (2005).

69. USEPA. Proposed ICR amendment for rulemaking entitled "Lead; Renovation, Repair, and Painting Program; Proposed Rule" (December 2005).

70. USEPA. Risk Analysis to Support Standards for Lead in Paint, Dust, and Soil (EPA 747-R-97-006, June 1998).

71. USEPA. Risk Analysis to Support Standards for Lead in Paint, Dust, and Soil: Supplemental Report (EPA 747-R-00-004, December 2000).

72. ASTM International. Standard Practice for Clearance Examinations Following Lead Hazard Reduction Activities in Single-Family Dwellings and Child-Occupied Facilities (E 2271-05).

73. ASTM International. Standard Guide for Evaluation, Management, and Control of Lead Hazards in Facilities (E 2052-99).

VIII. Statutory and Executive Order Reviews

A. Regulatory Review

Under Executive Order 12866, entitled *Regulatory Planning and Review* (58 FR 51735, October 4, 1993), it has been determined that this proposed rule is a "significant regulatory action" under section 3(f)(1) of the Executive Order because EPA estimates that it will have an annual effect on the economy of \$100 million or more. Accordingly, this action was

submitted to the Office of Management and Budget (OMB) for review under Executive Order 12866 and any changes made based on OMB recommendations have been documented in the public docket for this rulemaking as required by section 6(a)(3)(E) of the Executive Order.

As required by the Executive Order, EPA also submitted a draft analysis of the potential costs and benefits associated with this proposed rulemaking. This analysis is contained in a document entitled *Draft Economic Analysis for the Renovation, Repair, and Painting Program Proposed Rule* (Draft Economic Analysis) (Ref. 59). The Agency is conducting additional analyses with other assumptions for baseline activities than those that were used in the Agency's Draft Economic Analysis to estimate the potential costs and benefits of the proposed rule. Information about these new analyses is available in the docket, and, once completed, the revised Economic Analysis will also be available in the docket. The additional analyses are expected to change the estimated potential costs and benefits of the proposed rule. A copy of this Economic Analysis is available in the docket for this action, and is briefly summarized here.

1. *Options evaluated.* EPA evaluated a number of options in the development of the proposed rule. All options address target housing, which is defined in section 401 of TSCA as housing constructed before 1978, except housing for the elderly and persons with disabilities, unless any child under age 6 resides or is expected to reside in such housing, or any 0-bedroom dwelling. Option A applies to renovation, repair, and painting projects performed for compensation in all rental target housing and owner-occupied target housing built before 1978 where a child under age 6 resides. Option B has 2 phases. The first phase applies to rental target housing built before 1960, and owner-occupied target housing units built before 1960 where a child under age 6 resides, plus all housing units built before 1978 where a child with a blood lead level that equals or exceeds applicable levels of concern resides. The second phase, which takes effect a year after the first phase, applies to all the housing units covered by Option A. Option C also has 2 phases. The first phase applies to all rental housing built before 1950, and owner-occupied housing units built before 1950 where a child under age 6 resides, plus all housing units built before 1978 where a child with a blood lead level that equals or exceeds applicable levels of concern

resides. The second phase, which takes effect a year after the first phase, applies to all the housing units covered by Option A. Option D covers the same housing units at the same times as Option B, but differs from Options A, B, and C in that they allow a certified renovator flexibility in selecting appropriate work practices for each individual job, while Option D does not provide such flexibility. The proposed rule is Option B.

2. *Number of events and individuals.* As shown in the Draft Economic Analysis, the number of renovation, repair, and painting events covered by the rule varies across regulatory options in Phase 1 as a result of the different time periods addressed by the options. The number of events covered in Phase 2 is the same for all options because the housing units regulated are the same, i.e., pre-1978 units. Because not all housing units built before 1978 have lead-based paint, not all events need to use lead-safe work practices. The number of events with lead-safe work practices in Phase 2 is smaller than in Phase 1 for all but Option C, despite the increase in housing units covered by Phase 2 under Options B, C, and D. The number of events requiring lead-safe work practices is smaller because the accuracy of lead paint test kits (in terms of detecting the presence or absence of regulated lead-based paint) is expected to have improved by Phase 2. Under the proposed rule, in Phase 1 there would be 4.8 million events in housing where lead-safe work practices are used due to the rule. Slightly more than 4.9 million individuals reside in these housing units, including 729,000 children under age 6. In Phase 2, the proposed rule would cover 4.4 million such events in units housing nearly 5.8 million individuals, including 855,000 children under age 6.

3. *Benefits.* The Draft Economic Analysis describes the estimated benefits of the proposed rulemaking in qualitative and quantitative terms. Benefits result from the prevention of adverse health effects attributable to lead exposure. These health effects include several illnesses as well as impaired cognitive function in adults and children.

There are not sufficient data at this time to quantify some of the potential benefits of reducing exposure to lead. EPA's Draft Economic Analysis estimates the benefits of avoiding selected health effects in children and adults.

The Agency considered the potential benefits to both children and adults because studies indicate that they are both adversely affected by exposures to

lead in dust from renovation and remodeling activities. As stated in Unit III.B., one of the purposes of Title X is the elimination of lead-based paint hazards in target housing. EPA considered the potential benefits to children separately from adults, because a focus of Title X is the reduction in the threat of childhood lead poisoning. The Agency specifically seeks comment on its consideration of potential benefits to both adults and children, as well as comments and information about the potential uncertainties associated with the adult health effects considered and the magnitude of those uncertainties.

4. *Costs.* The Draft Economic Analysis estimates the potential costs of complying with this proposed rule including training costs, certification costs, and work practice costs. As indicated previously, the Agency is conducting additional analysis that could change the estimated potential costs of the proposed rule. This new analysis will be added to the docket as soon as it is complete. In the Draft Economic Analysis, training costs will be incurred for renovators, who will perform or direct the performance of key tasks during renovations, and workers, who may perform renovation tasks under the direction of renovators. Persons who are not currently certified as lead-based paint abatement supervisors or workers and who wish to become certified renovators would be required to take an accredited 8-hour renovator course. Currently certified abatement supervisors and workers would merely need to familiarize themselves with this proposal's work practice and cleaning verification requirements. Training for renovation workers under this proposal would consist of informal, on-the-job training by a renovator. Renovators not otherwise certified would be required to take a 4-hour refresher course every 3 years to maintain their certification. Firms performing renovations will have to be certified by EPA or an EPA-authorized State, Tribal, or Territorial program. Certified firms would have to be re-certified every 3 years.

The work practice requirements of this proposal cover 3 general categories of activities: Containing the work area, cleaning up the work area after the project has been completed, and verifying that the clean-up was adequate. Costs associated with these work practice requirements are primarily related to the cost of materials, such as the plastic used to cover the floors, and the cost of the labor needed to establish containment before the project, clean the work area

afterwards, and perform the post-renovation cleaning verification step.

To further improve the analysis for the final rule, the Agency is also specifically interested in comments and supporting information on the following questions related to assumptions used in the Agency's analysis:

- To what extent do renovators/contractors already conduct any of the individual activities described in the proposed rule, and under what renovation, repair or painting circumstances are any of these activities routinely or rarely conducted? Do any contractors already perform all of the lead safe work practices described in this proposal?
 - To what extent is the whole house or rooms adjacent to the work area contaminated by typical renovation, repair or painting activities? Under what circumstances do renovators/contractors clean the whole house or adjacent rooms during or after renovation, repair or painting activities?
 - Under what circumstances do homeowners or rental management firms clean the work area or adjacent rooms during or after renovation, repair or painting activities?
 - To what extent do renovators/contractors or homeowners already use vacuums equipped with HEPA filters to clean-up debris created during renovation, repair or painting activities?
 - Under what circumstances do renovators/contractors use plastic sheets or other methods to isolate and collect dust and debris, during or after renovation, repair or painting activities?
 - If dust or debris is generated in preparing the surfaces, to what extent do renovators/contractors or building owners clean-up the dust or debris before painting?
 - To what extent should the analysis reflect any exposures to owners or occupants (both inhalation and ingestion) during the renovation, repair or painting event? (The Draft Economic Analysis only looks at ingestion exposures after the renovation, repair or painting event is completed and the contractor has left).
 - How many days does a typical renovation, repair or painting event last? How many days during the renovation, repair or painting event is dust created? How often and how thoroughly is cleaning performed during or after the renovation, repair or painting event?
 - To what extent should the analysis of adult exposures consider average dust loading on surfaces as compared to the typically higher dust loadings resulting from renovation, repair or painting events?

- How do cleaning efficiencies of different cleaning methods (sweeping, regular vacuum, HEPA vacuum) vary with the dust loading level? There is information suggesting that cleaning is more effective (as a percentage of dust removed) at higher dust loading levels. Thus, when there are multiple rounds of cleaning, each one picks up a lower percentage of dust than the one before it. Would the cleaning efficiency be the same for dust with different lead concentrations? The Draft Economic Analysis assumes that cleaning effectiveness is constant, and does not vary with dust loading levels.

- How do lead dust loading levels vary by the age of the home and by home component type (e.g., indoor trim versus outdoor trim)?

B. Paperwork Reduction Act

The information collection requirements contained in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act (PRA), 44 U.S.C. 3501 *et seq.* An Information Collection Request (ICR) document prepared by EPA, an amendment to an existing ICR that is approved under OMB control number 2070-0155 and referred to as the ICR Addendum (EPA ICR No. 1715.07) has been placed in the public docket for this proposed rule (Ref. 69).

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations codified in Chapter 40 of the CFR, after appearing in the preamble of the final rule, are listed in 40 CFR part 9, are displayed either by publication in the **Federal Register** or by other appropriate means, such as on the related collection instrument or form, if applicable. The display of OMB control numbers in certain EPA regulations is consolidated in 40 CFR part 9.

The new information collection activities contained in this proposed rule are designed to assist the Agency in meeting the core objectives of TSCA section 402, including ensuring the integrity of accreditation programs for training providers; providing for the certification of contractors; and determining whether work practice standards are being followed. EPA has carefully tailored the proposed reporting and recordkeeping requirements so they will permit the Agency to achieve statutory objectives without imposing an undue burden on those entities that choose to be involved in residential renovations.

Burden under the PRA means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

Under this proposal, the new information collection requirements may affect training providers and firms that perform renovation, repair, or painting for compensation in regulated housing. Although these entities have the option of choosing to engage in the covered activities, once an entity chooses to do so, the information collection activities contained in this rule become mandatory for those entities.

The ICR document provides a detailed presentation of the estimated burden and costs for 3 years of the program. The aggregate burden varies by year due to changes in the number of firms that will seek certification each year. The burden and cost to training providers and renovation firms is summarized here.

There are 100 to 167 training providers that are estimated to incur burden to become accredited, and to notify EPA (or an authorized State, Tribe, or Territory) before and after training courses. The average burden related to accreditation is estimated to be 15 hours during the year a training provider is first accredited, 7 hours in years that it is re-accredited (re-accreditation is required every 3 years), and 1 hour during other years. For notifications, the average burden per training provider is estimated at 35 to 95 hours per year, depending on the number of training courses provided. Total training provider burden is estimated to be 6,300 to 12,900 hours per year.

The estimated number of firms certified to engage in residential renovation, repair, or painting activities under the rule varies from 115,000 to 218,000, depending on the phase of the rule. The number of firms that receive initial certification ranges from 72,000 per year to 141,000 per year, depending on the year. The average certification burden is estimated to be 3.5 hours per

firm in the year a firm is initially certified, and 0.5 hours in years that it is re-certified (which occurs every 3 years). Firms must also keep records of the work they perform in regulated housing; this recordkeeping is estimated to take an average of 5 hours per year. Total burden for renovation, repair, and painting firms is estimated to be 981,000 to 1,530,000 hours per year, depending on the year.

Total respondent burden during the period covered by the ICR is estimated to average 1,260,000 hours per year.

There are also government costs to administer the program. States, Tribes, and Territories are allowed, but are under no obligation, to apply for and receive authorization to administer these proposed requirements. EPA will directly administer programs for States, Tribes, and Territories that do not become authorized. Because the number of States, Tribes, and Territories that will become authorized is not known, administrative costs are estimated assuming that EPA will administer the program everywhere. To the extent that other government entities become authorized, EPA's administrative costs will be lower.

Direct your comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, to EPA using the public docket that has been established for this proposed rule (Docket ID No. EPA-HQ-OPPT-2005-0049). In addition, send a copy of your comments about the ICR to OMB at: Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St., NW., Washington, DC 20503, Attention: Desk Office for EPA ICR No. 1715.07. Since OMB is required to complete its review of the ICR between 30 and 60 days after January 10, 2006, please submit your ICR comments for OMB consideration to OMB by February 9, 2006.

The Agency will consider and address comments received on the information collection requirements contained in this proposal when it develops the final rule.

C. Regulatory Flexibility Act

In accordance with the Regulatory Flexibility Act (RFA), 5 U.S.C. 601 *et seq.*, and the Agency's long-standing policy of always considering whether there may be a potential for adverse impacts on small entities, the Agency has evaluated the potential small entity impacts of this proposed rule. The Agency's analysis of potentially adverse

economic impacts is included in the Draft Economic Analysis for this proposed rule (Ref. 59). As discussed in Unit VIII.A., the revised Economic Analysis, to be available in the docket, will provide additional information about the expected costs and benefits, and supplement the information now provided in the initial regulatory flexibility analysis and considered for the final regulatory flexibility analysis. The following is a brief overview of EPA's initial regulatory flexibility analysis.

Small entities include small businesses, small organizations, and small governmental jurisdictions. For purposes of assessing the impacts of today's proposed rule on small entities, small entity is defined in accordance with the RFA as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

1. *Legal basis and objectives for the proposed rule.* As discussed in Unit III.C., TSCA section 402(c)(2) directs EPA to study the extent to which persons engaged in renovation, repair, and painting activities are exposed to lead or create a lead-based paint hazard regularly or occasionally. After concluding this study, TSCA section 402(c)(3) further directs EPA to revise its lead-based paint activities regulations under TSCA section 402(a) to apply to renovation or remodeling activities that create lead-based paint hazards. Because EPA's study found that activities commonly performed during renovation and remodeling create lead-based paint hazards, EPA is proposing to revise the TSCA section 402(a) regulatory scheme to apply to individuals and firms engaged in renovation and remodeling activities. The primary objective of this proposal is to prevent the creation of new lead-based paint hazards from renovation, repair, and painting activities in housing where children under age 6 reside.

2. *Potentially affected small entities.* The small entities that are potentially directly regulated by this proposed rule include small businesses, such as renovation, repair, and painting contractors, property owners and managers, small non-profits that own target housing, and small governments that may own certain target housing.

The vast majority of businesses in the industries affected by this rule are small. Approximately 200,000 small contractors and real estate establishments per year will be affected per year under the proposed rule. Information was not available to estimate the number of small governments and small non-profits, but there are expected to be few, if any, small governments that incur costs due to the rule.

3. *Potential economic impacts on small entities.* EPA used annual compliance costs as a percentage of annual company revenues to assess the potential impacts of the rule on small businesses. EPA believes this is a good measure of a firm's ability to afford the costs attributable to a regulatory requirement, because comparing compliance costs to revenues provides a reasonable indication of the magnitude of the regulatory burden relative to a commonly available measure of a company's business volume. Where regulatory costs represent a small fraction of a typical firm's revenues (for example, less than 1%, and not greater than 3%), EPA believes that the financial impacts of the regulation on such firms may be considered as not significant. EPA believes it is appropriate to calculate this measure based on annualized costs, because these costs are more representative of the continuing costs firms face to comply with the proposed rule.

Using studies from the economics literature, the Draft Economic Analysis (Ref. 59) for this proposed rule estimates that nearly 90% of the estimated cost will be passed on to consumers in the form of higher prices. The resulting cost impact ranges from about 0.5% to 1.6% of revenues, depending on the industry. The costs represent less than 1% of revenues for small firms when considered together. Because of the lack of information on small non-profits and governments that might be affected by the rule, it was not possible to calculate the typical cost per entity or the impact ratios for them. However, the cost per event for non-profits and governments is expected to be similar to that incurred by businesses.

4. *Relevant Federal rules.* The proposed requirements in this rulemaking will fit within an existing framework of other Federal regulations that address lead-based paint.

The Pre-Renovation Education Rule, discussed in Unit III.B.2.b., requires renovators to distribute a lead hazard information pamphlet to owners and occupants before conducting a renovation in target housing. This proposal has been carefully crafted to

harmonize with the existing pre-renovation education requirements.

As discussed in Unit IV.D.2.c., disposal of waste from renovation projects that would be regulated by this proposal is covered by the Resource Conservation and Recovery Act (RCRA) regulations for solid waste. This proposal does not contain specific requirements for the disposal of waste from renovations.

As described in Unit III.B.3., HUD has extensive regulations that address the conduct of interim controls, as well as other lead-based paint activities, in Federally assisted housing. Some of HUD's interim controls would be regulated under this proposal as renovations, depending upon whether the particular interim control measure disturbs more than the threshold amount of paint. In most cases, the HUD regulations are comparable to, or more stringent than this proposal. In general, persons performing HUD-regulated interim controls must have taken a course in lead-safe work practices, which is also a requirement of this proposal. However, this proposal would not require dust clearance testing, a process required by HUD after interim control activities that disturb more than a minimal amount of lead-based paint.

Finally, OSHA's Lead Exposure in Construction standard covers potential worker exposures to lead during many construction activities, including renovation, repair, and painting activities. Although this standard, described in Unit III.B.3., may cover many of the same projects as this proposal, the requirements themselves do not overlap. The OSHA rule addresses the protection of the worker, this EPA proposal addresses the protection of the building occupants, particularly children under age 6.

5. *Skills needed for compliance.* This proposal would establish requirements for training renovators and dust sampling technicians; certifying renovators, dust sampling technicians, and renovation firms; accrediting providers of renovation and dust sampling technician training; and for renovation work practices. Renovators and dust sampling technicians would have to take a course to learn the proper techniques for accomplishing the tasks they will perform during renovations. These courses are intended to provide them with the information they would need to comply with the rule based on the skills they already have. Firms would be required to apply for certification to perform renovations; this process does not require any special skills other than the ability to complete the application. They would also need

to document the work they have performed during renovations. This does not require any special skills. Training providers must be knowledgeable about delivering technical training. Training providers would be required to apply for accreditation to offer renovator and dust sampling technician courses. They would also be required to provide prior notification of such courses and provide information on the students trained after each such course. Completing the accreditation application and providing the required notification information does not require any special skills.

6. *Small Business Advocacy Review Panel.* EPA conducted outreach to small entities and convened a Small Business Advocacy Review Panel to obtain advice and recommendations of representatives of the small entities that potentially would be subject to the rule's requirements. The Panel was convened by EPA's Small Business Advocacy Chairperson on November 23, 1999. In addition to the chairperson, the Panel consisted of the Director of the Office of Pollution Prevention and Toxics, the Administrator of the Office of Information and Regulatory Affairs within the Office of Management and Budget, and the Chief Counsel for Advocacy of the Small Business Administration.

After considering the existing lead-based paint activities regulations, and taking into account preliminary stakeholder feedback, EPA identified eight key elements of a potential renovation and remodeling regulation for the Panel's consideration. These elements were:

- Applicability and scope.
- Firm certification.
- Individual training and certification.
- Accreditation of training courses.
- Work practice standards.
- Prohibited practices.
- Exterior clearance.
- Interior clearance.

EPA also developed several options for each of these key elements. At the onset of pre-panel discussions with SBA and OMB, EPA held three conference calls with potentially impacted Small Entity Representatives (SERs) to obtain feedback on these options and other alternatives for a renovation and remodeling regulation. The Panel held an outreach meeting with Small Entity Representatives (SERs) on December 3, 1999. Eleven SERs, representing a broad range of small entities from diverse geographic locations, and four association representatives participated in the meeting. The Panel solicited comments from the SERs on the options

presented by EPA, as well as EPA's cost estimates for these options. Several SERs submitted written comments to EPA following this meeting. The Panel evaluated the assembled materials and small-entity comments, and prepared a report for the Agency's consideration. A copy of the Panel report is included in the docket for this proposed rule (Ref. 33).

As a result of its deliberations, the Panel made a number of recommendations. The options presented by EPA, the Panel's recommendations, and EPA's responses to the recommendations, are summarized here.

a. *Applicability and scope.* EPA presented four options: All pre-1978 housing, all pre-1978 rental housing, all pre-1960 housing, and all pre-1960 rental housing. The Panel recommended that EPA request public comment in the proposal on the option of limiting the housing stock affected by the rule to that constructed prior to 1960, as well as the option of covering all pre-1978 housing and other options that may help to reduce costs while achieving the protection of public health. In the discussion of the scope and applicability in Unit IV.B., EPA identified the pre-1960 option, as well as the option of covering all pre-1978 housing, and asked for public comment on these and other options that would limit the costs of the rule to the regulated community while providing protection to children from lead-based paint hazards created by renovation projects.

EPA also presented 2 potential exemptions, a *de minimis* exemption for projects that disturb 2 square feet or less of painted surfaces, and an exemption for emergency projects. The Panel recommended that EPA include both of these exemptions in its proposal. EPA is proposing to extend the existing exemption for small projects available under the Pre-Renovation Education Rule to the training, certification, and work practice requirements of this proposal. However, rather than just exempting emergency renovations from the requirements of this proposal, EPA is adding a statement to the description of the exemption to indicate that the training, certification, and work practice standards apply to the extent practicable. As discussed in Unit IV.B., emergency renovations can generally be conducted in accordance with most of these proposed requirements, but some flexibility is necessary.

b. *Firm certification.* EPA presented three options: Certification for all renovation firms, certification only for firms that perform large-scale surface

preparation activities or demolitions, and no firm certification. The Panel believed that firm certification would help consumers identify qualified renovation firms, so the Panel recommended that firm certification be included in any proposal. The Panel also recommended that EPA attempt to balance the goals and objectives of the statute, with the burden associated with such regulatory requirements, in order to avoid placing compliant firms at an undue competitive disadvantage. EPA is proposing to require that firms who perform renovations, as that term would be defined, be certified. EPA believes that the proposed firm certification process is as minimally burdensome for firms as possible, while achieving the objectives of the mandate.

c. *Individual training and certification.* EPA presented four options to the Panel. The first option was to require training and certification for all individuals who perform covered renovations. The second option was to require training and certification only for the supervisor. The third option was to require training for all individuals who perform covered renovations, but no certification. The final option was to require neither training nor certification for individuals. The Panel realized that worker training increases the likelihood that proper lead-safe work practices will be used, but recognized that the rate of worker turnover in the industry would lead to high training and certification costs for firms. As a less-burdensome alternative, the Panel recommended that EPA propose formal training for supervisors, or some other clearly-defined responsible person, and informal training for all others. This recommendation has been adopted by EPA in the proposed rule.

d. *Accreditation of training courses.* EPA presented two options on this topic to the Panel: Accreditation required, or accreditation not required. Although concerned about burdens for training providers, the Panel understood that accreditation provides a mechanism for ensuring quality control of training programs, establishing a minimum level of essential training, and facilitating reciprocity between States. The Panel recommended that EPA propose to require accreditation of training, which is what EPA is doing in this proposal.

e. *Work practice standards.* EPA presented three 3 general options to the Panel for work practice standards: prescriptive containment and clean-up requirements, performance-based containment and clean-up requirements, or no work practice requirements. The Panel recognized that prescriptive approaches to work practice standards

may clearly identify ways to minimize lead-based paint hazards, but felt that prescriptive practices may not be practical or effective in all situations. Because a performance-based approach could provide firms with the flexibility to manage risks in the most cost-effective manner, the Panel recommended that EPA include performance-based standards in the proposal. In response to this recommendation, EPA is proposing an approach that includes required elements, such as warning signs, containment barriers, and specialized cleaning, but allows flexibility for the certified renovator to tailor these requirements to the specific job at hand.

f. *Prohibited practices.* The current abatement regulations in 40 CFR part 745, subpart L prohibit the following work practices during abatement projects: Open-flame burning or torching, machine sanding or grinding, abrasive blasting or sandblasting, dry scraping of large areas, and operating a heat gun in excess of 1100 degrees Fahrenheit. EPA presented four options to the Panel on this topic: Prohibit these practices during renovations, allow dry scraping and exterior flame-burning or torching, allow dry scraping, and interior and exterior flame-burning or torching, or allow all of these practices. The Panel recognized industry concerns over the feasibility of prohibiting these practices, especially when no cost-effective alternatives exist. The Panel was also concerned about the potential risks associated with these practices, but noted that reasonable training, performance, containment, and clean-up requirements may adequately address these risks. In Unit IV.D., EPA has followed the Panel's recommendation and requested public comment on the cost, benefit, and feasibility of prohibiting certain work practices, but EPA is not proposing to prohibit any work practices. EPA has determined that the training, containment, and clean-up requirements of this proposal are sufficient to address any risks associated with the work practices prohibited by the abatement regulations.

g. *Exterior clearance.* EPA presented three options to the Panel for determining when an exterior renovation project area had been properly cleaned-up and the area made ready for re-occupancy. This determination is typically called "clearance." EPA's three options were visual inspection only, soil sampling, or no clearance process at all. Consistent with other Federal lead-based paint regulations, including the abatement regulations at 40 CFR part 745, subpart L, the Panel recommended that EPA

propose to require a visual inspection for clearance after exterior renovations. This is the option EPA has proposed in this rulemaking.

h. *Interior clearance.* Interior clearance was a particularly difficult issue for the Panel. Interior clearance after lead-based paint abatement projects involves an independent third-party collecting dust wipe samples, sending them to an EPA-recognized laboratory for analysis, and comparing the results to the standards established in 40 CFR 745.227(e)(8). This is expensive and time-consuming. EPA presented 4 options to the Panel for interior clearance: dust testing after all projects, dust testing only after large-scale surface preparation, demolition, or any of the practices prohibited by the abatement regulations, visual clearance only, and no clearance at all. After reviewing the studies available at the time, the Panel could not conclude that a thorough professional clean-up or a visual inspection would be an adequate substitute for dust wipe testing. The SBA introduced a new option to the Panel, consisting of a specific cleanup methodology followed by a visual clearance requirement, as an alternative to dust clearance testing. The Panel recommended that EPA include this new option in the proposal and take comment on the merits of all the interior clearance options in the proposal. The Panel also recommended that EPA take comment on options for clearance that are less costly and less burdensome and yet still demonstrate the absence of lead hazards. As discussed in Unit IV.E., EPA followed the Panel report with research into alternatives to laboratory dust clearance and is proposing an option based on this research. EPA is also requesting comment on other methods of ensuring that leaded dust and debris created during renovations have been cleaned up properly.

The Panel also recommended that the EPA do additional analysis of the existing data from Phase III of the renovation and remodeling study conducted under TSCA section 402(c)(2), discussed in Unit III.C.1.c. This phase of the study consisted of telephone interviews about renovation and remodeling activities with the parents or guardians of Wisconsin children for whom blood-lead data was available. The results of this additional analysis, which focused on the relationship between who performs renovation and remodeling activities and the odds of an elevated blood-lead level occurring in a resident child, are discussed in Unit III.C.1.c. and have been placed in the docket (Ref. 34).

Finally, the Panel recommended that EPA continue to refine the impact analysis of the proposal, utilizing comments from affected industry and other parties related to costs and other issues. As always, EPA continues to refine its impact analysis, and is again requesting comment on EPA's updated assessment of the costs and benefits of this proposed rule.

EPA invites comments on all aspects of the proposal and its impacts on small entities.

D. Unfunded Mandates Reform Act (UMRA)

Under Title II of the Unfunded Mandates Reform Act (UMRA) (Public Law 104-4), EPA has determined that this proposed rule contains a Federal mandate that may result in expenditures of \$100 million or more by the private sector in any 1 year, but it will not result in such expenditures by State, local, and Tribal governments in the aggregate. Accordingly, EPA has prepared a written statement under section 202 of the UMRA which has been placed in the public docket for this proposed rule and is summarized here.

1. *Authorizing legislation.* This proposal is issued under the authority of TSCA sections 402(c)(3) and 404.

2. *Cost-benefit analysis.* EPA has prepared an analysis of the costs and benefits associated with this proposed action (Ref. 59), a copy of which is available in the public docket for this rulemaking. The Draft Economic Analysis presents the costs of the proposal as well as various regulatory options and is summarized in Unit VIII.A.

3. *State, local, and Tribal government input.* EPA has sought input from State, local and Tribal government representatives throughout the development of this proposal. EPA's experience in administering the existing lead-based paint activities program under TSCA section 402(a) suggests that these governments will play a critical role in the successful implementation of a national program to reduce exposures to lead-based paint hazards associated with renovation, repair, and painting activities. Consequently, as discussed in Unit III.C.2., the Agency has met with State, local, and Tribal government officials on numerous occasions to discuss renovation issues.

4. *Least burdensome option.* As discussed in the Draft Economic Analysis prepared for this regulation, as well as in the information presented on the Panel review process in Unit VIII.C.6., EPA considered a wide variety of options for addressing the risks presented by renovation activities in

residences where lead-based paint is present. Options considered include covering only homes built before 1960, various combinations of training and certification requirements for individuals who perform renovations in covered housing, various combinations of work practice requirements, and various methods for ensuring that no lead-based paint hazards are left behind by persons performing renovations. EPA has determined that the proposed option is the least burdensome option available that achieves the objective of this proposed rule, which is to prevent the creation of new lead-based paint hazards from renovation, repair, and painting activities in housing where children under age 6 reside.

This proposed rule does not contain a significant Federal intergovernmental mandate as described by section 203 of UMRA. EPA has also determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. Based on the definition of "small government jurisdiction" in RFA section 601, no State governments can be considered small. Small Territorial or Tribal governments could apply for authorization to administer and enforce this program, which would entail costs, but these small jurisdictions are under no obligation to do so.

E. Federalism

Pursuant to Executive Order 13132, entitled *Federalism* (64 FR 43255, August 10, 1999), EPA has determined that this proposed rule does not have "federalism implications," because it will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Thus, Executive Order 13132 does not apply to this proposed rule.

As discussed in Unit IV.F., States would be able to apply for, and receive authorization to administer these proposed requirements, but would be under no obligation to do so. In the absence of a State authorization, EPA will administer these requirements. In addition, although the provisions of this proposal would apply to renovations in target housing owned by State and local governments, many of these housing authorities receive federal subsidies for public housing.

Nevertheless, in the spirit of the objectives of this Executive Order, and consistent with EPA policy to promote communications between the Agency and State and local governments, EPA

has consulted with representatives of State and local governments in developing this rule. EPA hosted three renovation-specific meetings or conference calls with State and local government officials. Summaries of these meetings have been placed in the public docket for this action (Refs. 41, 42, and 43).

EPA specifically solicits additional comment on this proposed rule from State and local officials.

F. Tribal Implications

As required by Executive Order 13175, entitled *Consultation and Coordination with Indian Tribal Governments* (59 FR 22951, November 6, 2000), EPA has determined that this proposed rule does not have tribal implications because it will not have substantial direct effects on tribal governments, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in the Order. As discussed in Unit IV.F., Tribes would be able to apply for, and receive authorization to administer these proposed requirements on Tribal lands, but Tribes would be under no obligation to do so. In the absence of a Tribal authorization, EPA will administer these requirements. Thus, Executive Order 13175 does not apply to this rule. Although Executive Order 13175 does not apply to this rule, EPA consulted with Tribal officials and others by discussing potential renovation regulatory options at several national lead program meetings hosted by EPA and other interested Federal agencies.

EPA specifically solicits additional comment on this proposed rule from Tribal officials.

G. Children's Health Protection.

Executive Order 13045, entitled *Protection of Children from Environmental Health Risks and Safety Risks* (62 FR 19885, April 23, 1997) applies to this proposed rule because it has been designated an "economically significant regulatory action" as defined by Executive Order 12866, and the environmental health or safety risk addressed by this action have a disproportionate effect on children. Accordingly, EPA has evaluated the environmental health or safety effects of renovation, repair, and painting projects on children. Various aspects of this evaluation are discussed in Units III.C., IV.A., VIII.A., and VIII.C. Copies of the renovation and remodeling studies (Refs. 30, 31, 32, 37, and 38), the Draft Economic Analysis for this proposal

(Ref. 59), the proposed and final TSCA section 403 hazard standards (Refs. 24 and 64), and the risk assessments supporting the hazard standards (Refs. 70 and 71) have been placed in the public docket for this action.

One purpose of this proposed regulation is to prevent the creation of new lead-based paint hazards from renovation activities in housing where children under age 6 reside. EPA's analysis indicates that renovation, repair, and painting projects in housing that is likely to contain lead-based paint will affect over 1.1 million children under age 6 annually. In the absence of this regulation, lead-safe work practices are not likely to be employed to perform the renovation projects. These children are projected to receive considerable benefits due to this regulation.

H. Energy Effects

This rule is not a "significant energy action" as defined in Executive Order 13211, entitled *Actions concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use* (66 FR 28355, May 22, 2001) because it is not likely to have any adverse effect on the supply, distribution, or use of energy.

I. Technology Standards

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law No. 104-113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

EPA is proposing to adopt a number of work practice requirements that could be considered technical standards for performing renovation projects in residences that contain lead-based paint. EPA has identified 2 voluntary consensus documents that address aspects of the proper performance of renovation projects where lead-based paint is present. ASTM International (formerly the American Society for Testing and Materials) has developed 2 potentially-applicable documents: "Standard Practice for Clearance Examinations Following Lead Hazard Reduction Activities in Single-Family

Dwellings and Child-Occupied Facilities” (Ref. 72), and “Standard Guide for Evaluation, Management, and Control of Lead Hazards in Facilities” (Ref. 73). With respect to the first document, EPA is not proposing to require traditional clearance examinations, including dust sampling, following renovation projects. However, as discussed in Unit IV.E., EPA is proposing to require that a visual inspection for dust, debris, and residue be conducted after cleaning and before post-renovation cleaning verification is performed. The first ASTM document does contain information on conducting a visual inspection before collecting dust clearance samples. The second ASTM document is a comprehensive guide to identifying and controlling lead-based paint hazards. Some of the information in this document is relevant to the work practices that EPA is proposing to require. Each of these ASTM documents represents state-of-the-art knowledge regarding the performance of these particular aspects of lead-based paint hazard evaluation and control practices and EPA recommends the use of these documents where appropriate. However, because each of these documents is extremely detailed and encompasses many circumstances beyond the scope of this rulemaking, EPA does not believe that it is practical to incorporate these voluntary consensus standards into this proposal.

In addition, EPA is proposing to recognize test kits that may be used by certified renovators to determine whether components to be affected by a renovation contain lead-based paint. EPA will recognize those kits that meet certain performance standards for limited false positives and negatives. EPA also intends to recognize only those kits that have been properly validated by a laboratory independent of the kit manufacturer. Although EPA is not establishing a particular method that must be used for validating kits, for chemical spot test kits, EPA plans to look to the ASTM document entitled *Standard Practice for Evaluating the Performance Characteristics of Qualitative Chemical Spot Test Kits for Lead in Paint* (Ref. 50) to determine whether a particular kit's validation is adequate.

EPA welcomes comments on this aspect of the proposed rulemaking and, specifically, invites the public to identify potentially applicable voluntary consensus standards and to explain why such standards should be used in this regulation.

J. Environmental Justice

Under Executive Order 12898, entitled *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 FR 7629, February 16, 1994), the Agency has assessed the potential impact of this proposal on minority and low-income populations. The results of this assessment are presented in the Draft Economic Analysis for this proposal, which is available in the public docket for this rulemaking (Ref. 59). The rule will not have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

List of Subjects in 40 CFR Part 745

Environmental protection, Housing renovation, Lead, Lead-based paint, Reporting and recordkeeping requirements.

Dated: December 29, 2005.

Stephen L. Johnson,
Administrator.

Therefore, it is proposed that 40 CFR chapter I be amended as follows:

PART 745—[AMENDED]

1. The authority citation for part 745 continues to read as follows:

Authority: 15 U.S.C. 2605, 2607, 2681–2692 and 42 U.S.C. 4852d.

2. Section 745.80 is revised to read as follows:

§ 745.80 Purpose.

This subpart contains regulations developed under sections 402 and 406 of the Toxic Substances Control Act (15 U.S.C. 2682 and 2686) and applies to all renovations of target housing performed for compensation. The purpose of this subpart is to ensure the following:

(a) Owners and occupants of target housing receive information on lead-based paint hazards before these renovations begin; and

(b) Persons performing renovations regulated in accordance with § 745.82 are properly trained; renovators, dust sampling technicians, and firms performing these renovations are certified; and lead-safe work practices are followed during these renovations.

3. Section 745.81 is revised to read as follows:

§ 745.81 Effective dates.

(a) *Training, certification and accreditation requirements and work practice standards.* The training, certification and accreditation requirements and work practice standards in this subpart are applicable

as of [insert date 1 year after date of publication of the final rule in the **Federal Register**] in any State or Indian Tribal area that does not have a renovation program that is authorized under subpart Q of this part. The training, certification and accreditation requirements and work practice standards in this subpart will become effective as follows:

(1) *Training programs.* Effective [insert date 60 days after date of publication of the final rule in the **Federal Register**], no training program may provide, offer, or claim to provide training or refresher training for EPA certification as a renovator or a dust sampling technician without accreditation from EPA under § 745.225. Training programs may apply for accreditation under § 745.225 beginning [insert date 1 year after date of publication of the final rule in the **Federal Register**].

(2) *Firms.* Firms may apply for certification under § 745.89 beginning [insert date 18 months after date of publication of the final rule in the **Federal Register**].

(i) No firm may perform, offer, or claim to perform renovations, as defined in this subpart, without certification from EPA under § 745.89 on or after [insert date 2 years after date of publication of the final rule in the **Federal Register**]:

(A) In any target housing where the firm obtains information indicating that a child under age 6 with a blood lead level greater than or equal to 10 µg/dL or the applicable State or local government level of concern, if lower, resides there, or in any target housing where the firm has not provided the owners and occupants with the opportunity to inform the firm that a child under age 6 with such a blood lead level resides there; or

(B) In target housing constructed before 1960, unless, in the case of owner-occupied target housing, the firm has obtained a statement signed by the owner that the renovation will occur in the owner's residence and no child under age 6 resides there.

(ii) No firm may perform, offer, or claim to perform renovations, as defined in this subpart, without certification from EPA under § 745.89 on or after [insert date 3 years after date of publication of the final rule in the **Federal Register**] in any target housing, unless, in the case of owner-occupied target housing, the firm has obtained a statement signed by the owner that the renovation will occur in the owner's residence and no child under age 6 resides there.

(3) *Individuals.* (i) All renovations, as defined in this subpart, must be directed by renovators certified in accordance with § 745.90(a) and performed by certified renovators or individuals trained in accordance with § 745.90(b)(2) on or after [insert date 2 years after date of publication of the final rule in the **Federal Register**]:

(A) In any target housing where the firm performing the renovation obtains information indicating that a child under age 6 with a blood lead level greater than or equal to 10 µg/dL or the applicable State or local government level of concern, if lower, resides there, or in any target housing where the firm has not provided the owners and occupants with the opportunity to inform the firm that a child under age 6 with such a blood lead level resides there; or

(B) In target housing constructed before 1960, unless, in the case of owner-occupied target housing, the firm performing the renovation has obtained a statement signed by the owner that the renovation will occur in the owner's residence and no child under age 6 resides there.

(ii) All renovations, as defined in this subpart, must be directed by renovators certified in accordance with § 745.90(a) and performed by certified renovators or individuals trained in accordance with § 745.90(b)(2) on or after [insert date 3 years after date of publication of the final rule in the **Federal Register**] in any target housing, unless, in the case of owner-occupied target housing, the firm performing the renovation has obtained a statement signed by the owner that the renovation will occur in the owner's residence and no child under age 6 resides there.

(4) *Work practices.* (i) All renovations, as defined in § 745.83, must be performed in accordance with the work practice standards in § 745.85 and the associated recordkeeping requirements in § 745.86(b)(6) and (b)(7) on or after [insert date 2 years after date of publication of the final rule in the **Federal Register**]:

(A) In any target housing where the firm performing the renovation obtains information indicating that a child under age 6 with a blood lead level greater than or equal to 10 µg/dL or the applicable State or local government level of concern, if lower, resides there, or in any target housing where the firm has not provided the owners and occupants with the opportunity to inform the firm that a child under age 6 with such a blood lead level resides there; or

(B) In target housing constructed before 1960, unless, in the case of

owner-occupied target housing, the firm performing the renovation has obtained a statement signed by the owner that the renovation will occur in the owner's residence and no child under age 6 resides there.

(ii) All renovations, as defined in this subpart, must be performed in accordance with the work practice standards in § 745.85 and the associated recordkeeping requirements in § 745.86(b)(6) and (b)(7) on or after [insert date 3 years after date of publication of the final rule in the **Federal Register**] in any target housing, unless, in the case of owner-occupied target housing, the firm performing the renovation has obtained a statement signed by the owner that the renovation will occur in the owner's residence and no child under age 6 resides there.

(5) The suspension and revocation provisions in § 745.91 are effective [insert date 2 years after date of publication of the final rule in the **Federal Register**].

(b) *Renovation-specific pamphlet.* Before [insert date 8 months after date of publication of the final rule in the **Federal Register**], renovators or firms performing renovations in States and Indian Tribal areas without an authorized program may provide owners and occupants with either of the following EPA pamphlets: *Protect Your Family From Lead in Your Home* or *Protect Your Family from Lead During Renovation, Repair & Painting*. After that date, *Protect Your Family from Lead During Renovation, Repair & Painting* must be used exclusively.

(c) *Pre-Renovation Education Rule.* With the exception of the requirement to use the pamphlet titled *Protect Your Family from Lead During Renovation, Repair & Painting*, the provisions of the Pre-Renovation Education Rule in this subpart have been in effect since June 1999.

4. Section 745.82 is revised to read as follows:

§ 745.82 Applicability.

(a) This subpart applies to all renovations of target housing performed for compensation, except for the following:

(1) Minor repair and maintenance activities (including minor electrical work and plumbing) that disrupt 2 square feet or less of painted surface per component.

(2) Renovations in target housing in which a written determination has been made by an inspector (certified pursuant to either Federal regulations at § 745.226 or a State or Tribal certification program authorized pursuant to § 745.324) that the components affected by the

renovation are free of paint or other surface coatings that contain lead equal to or in excess of 1.0 milligrams per square centimeter (mg/cm²) or 0.5% by weight, where the firm performing the renovation has obtained a copy of the determination.

(3) Renovations in target housing in which a certified renovator, using an acceptable test kit and following the kit manufacturer's instructions, has determined that the components affected by the renovation are free of paint or other surface coatings that contain lead equal to or in excess of 1.0 mg/cm² or 0.5% by weight.

(b) The information distribution requirements in § 745.84 do not apply to emergency renovation operations, which are renovation activities that were not planned but result from a sudden, unexpected event (such as non-routine failures of equipment) that, if not immediately attended to, presents a safety or public health hazard, or threatens equipment and/or property with significant damage. Interim controls performed in response to an elevated blood lead level in a resident child are also emergency renovation operations. The work practice, training, and certification requirements in §§ 745.85, 745.89, 745.90 and the recordkeeping requirements in § 745.86(b)(6) and (b)(7) apply to emergency renovation operations to the extent practicable.

(c) The work practice standards for renovation activities in § 745.85 apply to all renovations covered by this subpart, except for renovations in target housing for which the firm performing the renovation has obtained a statement signed by the owner that the renovation will occur in the owner's residence and no child under age 6 resides there. For the purposes of this section, a child resides in the primary residence of his or her custodial parents, legal guardians, and foster parents. A child also resides in the primary residence of an informal caretaker if the child lives and sleeps most of the time at the caretaker's residence.

5. Section 745.83 is amended as follows:

- a. Remove the definition of "Emergency renovation operations."
- b. Revise the definition of "Pamphlet" and the definition of "Renovator."
- c. Add 11 definitions in alphabetic order.

§ 745.83 Definitions.

* * * * *

Acceptable test kit means a commercially available kit recognized by EPA pursuant to section 405 of TSCA as being capable of allowing a user to

accurately determine the presence of lead at levels equal to or in excess of 1.0 milligrams per square centimeter, or more than 0.5% lead by weight, in a paint chip, paint powder, or painted surface.

* * * * *

Cleaning verification card means a card developed and distributed, or otherwise approved, by EPA for the purpose of determining, through comparison of disposable cleaning cloths with the card, whether post-renovation cleaning has been properly completed.

Component or building component means specific design or structural elements or fixtures of a building or residential dwelling that are distinguished from each other by form, function, and location. These include, but are not limited to, interior components such as: Ceilings, crown molding, walls, chair rails, doors, door trim, floors, fireplaces, radiators and other heating units, shelves, shelf supports, stair treads, stair risers, stair stringers, newel posts, railing caps, balustrades, windows and trim (including sashes, window heads, jambs, sills or stools and troughs), built in cabinets, columns, beams, bathroom vanities, counter tops, and air conditioners; and exterior components such as: Painted roofing, chimneys, flashing, gutters and downspouts, ceilings, soffits, fascias, rake boards, cornerboards, bulkheads, doors and door trim, fences, floors, joists, lattice work, railings and railing caps, siding, handrails, stair risers and treads, stair stringers, columns, balustrades, window sills or stools and troughs, casings, sashes and wells, and air conditioners.

Dry disposable cleaning cloth means a commercially available dry, electrostatically charged, white disposable cloth designed to be used for cleaning hard surfaces such as uncarpeted floors or counter tops.

* * * * *

Firm means a company, partnership, corporation, sole proprietorship or individual doing business, association, or other business entity; a Federal, State, Tribal, or local government agency; or a nonprofit organization.

HEPA-equipped vacuum means a vacuum equipped with a high efficiency particulate air filter.

Interim controls means a set of measures designed to temporarily reduce human exposure or likely exposure to lead-based paint hazards, including specialized cleaning, repairs, maintenance, painting, temporary containment, ongoing monitoring of lead-based paint hazards or potential

hazards, and the establishment and operation of management and resident education programs.

* * * * *

Pamphlet means the EPA pamphlet titled *Protect Your Family from Lead During Renovation, Repair & Painting* developed under section 406(a) of TSCA for use in complying with section 406(b) of TSCA, or any State or Tribal pamphlet approved by EPA pursuant to 40 CFR 745.326 that is developed for the same purpose. This includes reproductions of the pamphlet when copied in full and without revision or deletion of material from the pamphlet (except for the addition or revision of State or local sources of information). Before [insert date 8 months after date of publication of the final rule in the **Federal Register**], the term "pamphlet" also means any pamphlet developed by EPA under section 406(a) of TSCA or any State or Tribal pamphlet approved by EPA pursuant to § 745.326.

* * * * *

Renovator means a person who either performs or directs uncertified workers who perform renovations. A certified renovator is a renovator who has successfully completed a renovator course accredited by EPA or an EPA-authorized State or Tribal program.

Training hour means at least 50 minutes of actual learning, including, but not limited to, time devoted to lecture, learning activities, small group activities, demonstrations, evaluations, and hands-on experience.

Wet disposable cleaning cloth means a commercially available, pre-moistened white disposable cloth designed to be used for cleaning hard surfaces such as uncarpeted floors or counter tops.

Wet mopping system means a device with the following characteristics: A long handle, a mop head designed to be used with disposable absorbent cleaning pads, a reservoir for cleaning solution, and a built-in mechanism for distributing or spraying the cleaning solution onto a floor.

Work area means the area that the certified renovator establishes to contain all of the dust and debris generated by a renovation, based on the certified renovator's evaluation of the extent and nature of the activity and the specific work practices that will be used.

§ 745.84 [Removed]

6. Section 745.84 is removed.

§ 745.85 [Redesignated]

7. Section 745.85 is redesignated as § 745.84.

8. Newly designated § 745.84 is amended as follows:

a. Revise the introductory text of paragraph (a) and revise paragraph (a)(2)(i).

b. Revise the introductory text of paragraph (b) and revise paragraphs (b)(2) and (b)(4).

c. Revise the introductory text of paragraph (c).

§ 745.84 Information distribution requirements.

(a) *Renovations in dwelling units.* No more than 60 days before beginning renovation activities in any residential dwelling unit of target housing, the firm performing the renovation must:

(1) * * *

(2) * * *

(i) Obtain, from the adult occupant, a written acknowledgment that the occupant has received the pamphlet; or certify in writing that a pamphlet has been delivered to the dwelling and that the firm performing the renovation has been unsuccessful in obtaining a written acknowledgment from an adult occupant. Such certification must include the address of the unit undergoing renovation, the date and method of delivery of the pamphlet, names of the persons delivering the pamphlet, reason for lack of acknowledgment (e.g., occupant refuses to sign, no adult occupant available), the signature of a representative of the firm performing the renovation, and the date of signature.

* * * * *

(b) *Renovations in common areas.* No more than 60 days before beginning renovation activities in common areas of multi-unit target housing, the firm performing the renovation must:

(1) * * *

(2) Notify in writing, or ensure written notification of, each affected unit and make the pamphlet available upon request prior to the start of renovation. Such notification shall be accomplished by distributing written notice to each affected unit. The notice shall describe the general nature and locations of the planned renovation activities; the expected starting and ending dates; and a statement of how the occupant can obtain the pamphlet, at no charge, from the firm performing the renovation.

(3) * * *

(4) If the scope, locations, or expected starting and ending dates of the planned renovation activities change after the initial notification, the firm performing the renovation must provide further written notification to the owners and occupants providing revised information on the ongoing or planned activities. This subsequent notification must be provided before the firm performing the renovation initiates work

beyond that which was described in the original notice.

(c) *Written acknowledgment.* The written acknowledgments required by paragraphs (a)(1)(i), (a)(2)(i), and (b)(1)(i) of this section must:

* * * * *

9. Section 745.85 is added to subpart E to read as follows:

§ 745.85 Work practice standards.

(a) *Standards for renovation activities.* Renovations must be performed by certified firms using certified renovators as directed in § 745.89.

(1) *Occupant protection.* Firms must post signs clearly defining the work area and warning occupants and other persons not involved in renovation activities to remain outside of the work area. These signs must be posted before beginning the renovation and must remain in place and readable until the renovation and the post-renovation cleaning verification have been completed. If warning signs have been posted in accordance with 24 CFR 35.1345(b)(2) or 29 CFR 1926.62(m), additional signs are not required by this section.

(2) *Containing the work area.* Before beginning the renovation, the firm must isolate the work area so that no visible dust or debris leaves the work area while the renovation is being performed.

(i) *Interior renovations.* The firm must:

(A) Remove all objects from the work area, including furniture, rugs, and window coverings, or cover them with plastic sheeting or other impermeable material with all seams and edges taped or otherwise sealed.

(B) Close and cover all ducts opening in the work area with taped-down plastic sheeting or other impermeable material.

(C) Close windows and doors in the work area. Doors must be covered with plastic sheeting or other impermeable material. Doors used as an entrance to the work area must be covered with plastic sheeting or other impermeable material in a manner that allows workers to pass through while confining dust and debris to the work area.

(D) Cover the floor surface of the work area with plastic sheeting or other impermeable material with all seams taped and all edges secured at the perimeter of the work area

(E) Ensure that all personnel, tools, and other items including waste are free of dust and debris when leaving the work area. Alternatively, the paths used to reach the exterior of the home must be covered with plastic sheeting or other impermeable material to prevent the

spread of lead contaminated dust and debris outside the work area.

(ii) *Exterior renovations.* The firm must:

(A) Close all doors and windows within 20 feet of the renovation. On multi-story buildings, close all doors and windows within 20 feet of the renovation on the same floor as the renovation, and close all doors and windows on all floors below that are the same horizontal distance from the renovation.

(B) Ensure that doors within the work area that must be used while the job is being performed are covered with plastic sheeting or other impermeable material in a manner that allows workers to pass through while confining dust and debris to the work area.

(C) Cover the ground with plastic sheeting or other disposable impermeable material extending out from the edge of the structure a sufficient distance to collect falling paint debris.

(3) *Waste from renovations.* (i) Waste from renovation activities must be contained to prevent releases of dust and debris before the waste is removed from the work area for storage or disposal. If a chute is used to remove waste from the work area, it must be covered.

(ii) At the conclusion of each work day and at the conclusion of the renovation, waste that has been collected from renovation activities must be stored under containment, in an enclosure, or behind a barrier that prevents release of dust and debris out of the work area and prevents access to dust and debris.

(iii) When the firm transports waste from renovation activities, the firm must contain the waste to prevent identifiable releases of dust and debris.

(4) *Cleaning the work area.* After the renovation has been completed, the firm must clean the work area until no visible dust, debris or residue remains.

(i) *Interior and exterior renovations.* The firm must:

(A) Pick up all paint chips and debris.

(B) Remove the protective sheeting. Mist the sheeting before folding it, fold the dirty side inward, and either tape shut to seal or seal in heavy-duty bags. Sheeting used to isolate contaminated rooms from non-contaminated rooms must remain in place until after the cleaning and removal of other sheeting. Dispose of the sheeting as waste.

(ii) *Additional cleaning for interior renovations.* The firm must clean all objects and surfaces in and around the work area in the following manner, cleaning from higher to lower:

(A) *Walls.* Clean walls starting at the ceiling and working down to the floor by either vacuuming with a HEPA-equipped vacuum or wiping with a damp cloth.

(B) *Remaining surfaces.* Thoroughly vacuum all remaining surfaces and objects in the work area, including furniture and fixtures, with a HEPA-equipped vacuum. The HEPA-equipped vacuum must be equipped with a beater bar when vacuuming carpets and rugs. Where feasible, floor surfaces underneath a rug or carpeting must also be thoroughly vacuumed with a HEPA-equipped vacuum.

(C) Wipe all remaining surfaces and objects in the work area, except for carpeted or upholstered surfaces, with a damp cloth. Mop uncarpeted floors thoroughly, using a 2-bucket mopping method that keeps the wash water separate from the rinse water, or using a wet mopping system.

(b) *Standards for post-renovation cleaning verification.* (1) *Interiors.* (i) A certified renovator must perform a visual inspection to determine whether visible amounts of dust, debris or residue are still present. If visible amounts of dust, debris or residue are present, these conditions must be eliminated by re-cleaning and another visual inspection must be performed.

(ii) After a successful visual inspection, a certified renovator must:

(A) Verify that each windowsill in the work area has been adequately cleaned, using the following procedure.

(1) Wipe the windowsill with a wet disposable cleaning cloth that is damp to the touch. If the cloth matches the cleaning verification card, the windowsill has been adequately cleaned.

(2) If the cloth does not match the cleaning verification card, re-clean the windowsill as directed in paragraphs (a)(4)(ii)(B) and (C) of this section, then either use a new cloth or fold the used cloth in such a way that an unused surface is exposed, and wipe the windowsill again. If the cloth matches the cleaning verification card, that windowsill has been adequately cleaned.

(3) If the cloth does not match the cleaning verification card, clean that windowsill again as directed in paragraphs (a)(4)(ii)(B) and (C) of this section and wait for one hour or until the windowsill has dried completely, whichever is longer.

(4) After waiting for the windowsill to dry, wipe the windowsill with dry disposable cleaning cloths until a cloth, or section of cloth, used to wipe the windowsill matches the cleaning verification card.

(B) Wipe uncarpeted floors within the work area with a wet disposable cleaning cloth, using an application device with a long handle and a head to which the cloth is attached. The cloth must remain damp at all times while it is being used to wipe the floor for post-renovation cleaning verification. If the floor surface within the work area is greater than 40 square feet, the floor within the work area must be divided into roughly equal sections that are each less than 40 square feet. Wipe each such section separately with a new wet disposable cleaning cloth. If the cloth used to wipe each section of the floor within the work area matches the cleaning verification card, the floor has been adequately cleaned.

(1) If the cloth used to wipe a particular floor section does not match the cleaning verification card, re-clean that section of the floor as directed in paragraphs (a)(4)(ii)(B) and (a)(4)(ii)(C) of this section, then use a new wet disposable cleaning cloth to wipe that section again. If the cloth matches the cleaning verification card, that section of the floor has been adequately cleaned.

(2) If the cloth used to wipe a particular floor section does not match the cleaning verification card after the floor has been re-cleaned, clean that section of the floor again as directed in paragraphs (a)(4)(ii)(B) and (a)(4)(ii)(C) of this section and wait for 1 hour or until the entire floor within the work area has dried completely, whichever is longer.

(3) After waiting for the entire floor within the work area to dry, wipe those sections of the floor that have not yet achieved post-renovation cleaning verification with dry disposable cleaning cloths until a cloth that has wiped those sections of the floor matches the cleaning verification card. This wiping must also be performed using an application device with a long handle and a head to which the cloths are attached.

(iii) Dust clearance sampling may be performed instead of, or in addition to, the procedures identified in paragraph (b)(1)(ii) of this section. If dust clearance sampling is performed, it must be performed in accordance with § 745.227(e)(8) through (e)(9), except that a dust sampling technician certified in accordance with this subpart may collect and report the results of the required samples.

(iv) When the work area passes the post-renovation cleaning verification or dust clearance sampling, remove the warning signs.

(2) *Exteriors.* A certified renovator must perform a visual inspection to

determine whether visible amounts of dust, debris or residue are still present. If visible amounts of dust, debris or residue are present, these conditions must be eliminated and another visual inspection must be performed. When the area passes the visual inspection, remove the warning signs.

(c) *Activities conducted after post-renovation cleaning verification.* Activities that do not disturb paint, such as applying paint to walls that have already been prepared, are not regulated by this subpart if they are conducted after post-renovation cleaning verification has been performed.

10. Section 745.86 is amended by revising paragraph (a) and adding new paragraphs (b)(6) and (b)(7) to read as follows:

§ 745.86 Recordkeeping requirements.

(a) Firms performing renovations or conducting dust sampling must retain and, if requested, make available to EPA all records necessary to demonstrate compliance with this subpart for a period of 3 years following completion of the renovation or dust sampling activities. This 3-year retention requirement does not supersede longer obligations required by other provisions for retaining the same documentation, including any applicable State or Tribal laws or regulations.

(b) * * *

(6) Any signed and dated statements received from owner-occupants that no children under age 6 reside in housing being renovated which document that the requirements of § 745.85 do not apply. These statements must include a declaration that the renovation will occur in the owner's residence, a declaration that no children under age 6 reside there, the address of the unit undergoing renovation, the owner's name, the signature of the owner, and the date of signature. These statements must be written in the same language as the text of the renovation contract, if any. This requirement includes any statements received from owners or occupants that a child under age 6 with a blood lead level that equals or exceeds 10 µg/dL, or an applicable State or local government level of concern, if lower, resides there.

(7) Documentation of compliance with the requirements of § 745.85, including documentation that a certified renovator was assigned to the project, the certified renovator provided on-the-job training for uncertified workers used on the project, the certified renovator performed or directed uncertified workers who performed all of the tasks described in § 745.85(a), and the certified renovator performed the post-

renovation cleaning verification described in § 745.85(b). This documentation must include a copy of the certified renovator's or dust sampling technician's training certificate, and signed and dated descriptions of how activities performed by the certified renovator or dust sampling technician, including worker training activities, sign posting, work area containment, waste handling, cleaning, and post-renovation cleaning verification or clearance were conducted in compliance with this subpart. The descriptions of these activities must include a certification by the record preparer that the descriptions are complete and accurate.

11. Section 745.87 is amended by revising paragraph (e) to read as follows:

§ 745.87 Enforcement and inspections.

* * * * *

(e) Lead-based paint is assumed to be present at renovations covered by this subpart. EPA may conduct inspections and issue subpoenas pursuant to the provisions of TSCA section 11 (15 U.S.C. 2610) to ensure compliance with this subpart.

§ 745.88 [Removed]

12. Section 745.88 is removed.
13. Section 745.89 is added to subpart E to read as follows:

§ 745.89 Firm certification.

(a) *Initial certification.* (1) Firms that perform renovations for compensation must apply to EPA for certification to perform renovations or dust sampling. To apply, a firm must submit to EPA a completed "Application for Firms," signed by an authorized agent of the firm, and pay at least the correct amount of fees. If a firm pays more than the correct amount of fees, EPA will reimburse the firm for the excess amount.

(2) After EPA receives a firm's application, EPA will take one of the following actions within 90 days of the date the application is received:

(i) EPA will approve a firm's application if EPA determines that it is complete and that the environmental compliance history of the firm, its principals, or its key employees does not show an unwillingness or inability to maintain compliance with environmental statutes or regulations. An application is complete if it contains all of the information requested on the form and includes at least the correct amount of fees. When EPA approves a firm's application, EPA will issue the firm a certificate with an expiration date not more than 3 years from the date the application is approved. EPA

certification allows the firm to perform renovations covered by this section in any State or Indian Tribal area that does not have a renovation program that is authorized under subpart Q of this part.

(ii) EPA will request a firm to supplement its application if EPA determines that the application is incomplete. If EPA requests a firm to supplement its application, the firm must submit the requested information or pay the additional fees within 30 days of the date of the request.

(iii) EPA will not approve a firm's application if the firm does not supplement its application in accordance with paragraph (a)(2)(ii) of this section or if EPA determines that the environmental compliance history of the firm, its principals, or its key employees demonstrates an unwillingness or inability to maintain compliance with environmental statutes or regulations. EPA will send the firm a letter giving the reason for not approving the application. EPA will not refund the application fees. A firm may reapply for certification at any time by filing a new, complete application that includes the correct amount of fees.

(b) *Re-certification.* To maintain its certification, a firm must be re-certified by EPA every 3 years.

(1) *Timely and complete application.* To be re-certified, a firm must submit a complete application for re-certification. A complete application for re-certification includes a completed "Application for Firms" which contains all of the information requested by the form and is signed by an authorized agent of the firm, noting on the form that it is submitted as a re-certification. A complete application must also include at least the correct amount of fees. If a firm pays more than the correct amount of fees, EPA will reimburse the firm for the excess amount.

(i) An application for re-certification is timely if it is postmarked 90 days or more before the date the firm's current certification expires. If the firm's application is complete and timely, the firm's current certification will remain in effect until its expiration date or until EPA has made a final decision to approve or disapprove the re-certification application, whichever is later.

(ii) If the firm submits a complete re-certification application less than 90 days before its current certification expires, and EPA does not approve the application before the expiration date, the firm's current certification will expire and the firm will not be able to conduct renovations until EPA approves its re-certification application.

(iii) If the firm fails to obtain recertification before the firm's current certification expires, the firm must not perform renovations or dust sampling until it is certified anew pursuant to paragraph (a) of this section.

(2) *EPA action on an application.* After EPA receives a firm's application for re-certification, EPA will review the application and take one of the following actions within 90 days of receipt:

(i) EPA will approve a firm's application if EPA determines that it is timely and complete and that the environmental compliance history of the firm, its principals, or its key employees does not show an unwillingness or inability to maintain compliance with environmental statutes or regulations. When EPA approves a firm's application for re-certification, EPA will issue the firm a new certificate with an expiration date 3 years from the date that the firm's current certification expires. EPA certification allows the firm to perform renovations or dust sampling covered by this section in any State or Indian Tribal area that does not have a renovation program that is authorized under subpart Q of this part.

(ii) EPA will request a firm to supplement its application if EPA determines that the application is incomplete.

(iii) EPA will not approve a firm's application if it is not received or is not complete as of the date that the firm's current certification expires, or if EPA determines that the environmental compliance history of the firm, its principals, or its key employees demonstrates an unwillingness or inability to maintain compliance with environmental statutes or regulations. EPA will send the firm a letter giving the reason for not approving the application. EPA will not refund the application fees. A firm may reapply for certification at any time by filing a new application and paying the correct amount of fees.

(c) *Amendment of certification.* A firm must amend its certification within 45 days of the date a change occurs to information included in the firm's most recent application. If the firm fails to amend its certification within 45 days of the date the change occurs, the firm may not perform renovations or dust sampling until its certification is amended.

(1) To amend a certification, a firm must submit a completed "Application for Firms," signed by an authorized agent of the firm, noting on the form that it is submitted as an amendment and indicating the information that has

changed. The firm must also pay at least the correct amount of fees.

(2) If additional information is needed to process the amendment, or the firm did not pay the correct amount of fees, EPA will request the firm to submit the necessary information or fees. The firm's certification is not amended until the firm complies with the request.

(3) Amending a certification does not affect the certification expiration date.

(d) *Firm responsibilities.* Firms performing renovations or dust sampling must ensure that:

(1)(i) All persons performing renovation activities on behalf of the firm are either certified renovators or have been trained by a certified renovator in accordance with § 745.90.

(ii) All persons performing dust sampling on behalf of the firm are certified as either risk assessors, inspectors, or dust sampling technicians.

(2) A certified renovator is assigned to each renovation performed by the firm and discharges all of the certified renovator responsibilities identified in § 745.90; and

(3) All renovations performed by the firm are performed in accordance with the work practice standards in § 745.85.

14. Section 745.90 is added to subpart E to read as follows:

§ 745.90 Renovator and dust sampling technician certification.

(a) *Renovator and dust sampling technician certification.* (1) To become a certified renovator or dust sampling technician, a person must successfully complete the appropriate course accredited by EPA under § 745.225 or by a State or Tribal program that is authorized under subpart Q of this part. The course completion certificate serves as proof of certification. EPA renovator certification allows the certified individual to perform renovations covered by this section in any State or Indian Tribal area that does not have a renovation program that is authorized under subpart Q of this part. EPA dust sampling technician certification allows the certified individual to perform dust sampling covered by this section in any State or Indian Tribal area that does not have a renovation program that is authorized under subpart Q of this part.

(2) To maintain renovator or dust sampling technician certification, a person must complete a renovator or dust sampling technician refresher course accredited by EPA under § 745.225 or by a State or Tribal program that is authorized under subpart Q of this part within 3 years of the date the person completed the initial course described in paragraph (a)(1) of this

section. If the person does not complete a refresher course within this time, the person must re-take the initial course to become certified again.

(3) Persons who have a valid lead-based paint abatement supervisor or worker certification issued by EPA under § 745.226 or by a State or Tribal program authorized under subpart Q of this part are also deemed to be certified renovators.

(4) Persons who have a valid lead-based paint inspector or risk assessor certification issued by EPA under § 745.226 or by a State or Tribal program authorized under subpart Q of this part are also deemed to be certified dust sampling technicians.

(b) *Renovator responsibilities.*

Certified renovators are responsible for ensuring compliance with § 745.85 at all renovations to which they are assigned. A certified renovator:

(1) Must perform all of the tasks described in § 745.85(b) and must either perform or direct uncertified workers who perform all of the tasks described in § 745.85(a).

(2) Must provide training to uncertified workers on the lead-safe work practices they will be using in performing their assigned tasks, how to isolate the work area and maintain the integrity of the containment barriers, and how to avoid spreading dust or debris beyond the work area.

(3) Must be physically present at the work site when the signs required by § 745.85(a)(1) are posted, while the work area containment required by § 745.85(a)(2) is being established, and while the work area cleaning required by § 745.85(a)(4) is performed.

(4) Must direct work being performed by uncertified persons to ensure that lead-safe work practices are being followed, the integrity of the containment barriers is maintained, and dust or debris is not spread beyond the work area.

(5) Must be available, either on-site or by telephone, at all times that renovations are being conducted.

(6) When requested by the entity contracting for renovation services, must use an acceptable test kit to determine whether components to be affected by the renovation contain lead-based paint.

(7) Must have with them at the work site copies of their initial course completion certificate and their most recent refresher course completion certificate.

(c) *Dust sampling technician responsibilities.* A certified dust sampling technician:

(1) Must collect dust samples in accordance with § 745.227(e)(8), must

send the collected samples to a laboratory recognized by EPA under TSCA section 405(b), and must compare the results to the clearance levels in accordance with § 745.227(e)(8).

(2) Must have with them at the work site copies of their initial course completion certificate and their most recent refresher course completion certificate.

15. Section 745.91 is added to subpart E to read as follows:

§ 745.91 Suspending, revoking, or modifying an individual's or firm's certification.

(a)(1) *Grounds for suspending, revoking or modifying an individual's certification.* EPA may suspend, revoke, or modify an individual's certification if the individual fails to comply with Federal lead-based paint statutes or regulations. EPA may also suspend, revoke, or modify a certified renovator's certification if the renovator fails to ensure that all assigned renovations comply with § 745.85. In addition to an administrative or judicial finding of violation, execution of a consent agreement in settlement of an enforcement action constitutes, for purposes of this section, evidence of a failure to comply with relevant statutes or regulations.

(2) *Grounds for suspending, revoking or modifying a firm's certification.* EPA may suspend, revoke, or modify a firm's certification if the firm:

(i) Submits false or misleading information to EPA in its application for certification or re-certification.

(ii) Fails to maintain or falsifies records required in § 745.86.

(iii) Fails to comply, or an individual performing a renovation on behalf of the firm fails to comply, with Federal lead-based paint statutes or regulations. In addition to an administrative or judicial finding of violation, execution of a consent agreement in settlement of an enforcement action constitutes, for purposes of this section, evidence of a failure to comply with relevant statutes or regulations.

(b) *Process for suspending, revoking, or modifying certification.* (1) Prior to taking action to suspend, revoke, or modify an individual's or firm's certification, EPA will notify the affected entity in writing of the following:

(i) The legal and factual basis for the proposed suspension, revocation, or modification.

(ii) The anticipated commencement date and duration of the suspension, revocation, or modification.

(iii) Actions, if any, which the affected entity may take to avoid

suspension, revocation, or modification, or to receive certification in the future.

(iv) The opportunity and method for requesting a hearing prior to final suspension, revocation, or modification.

(2) If an individual or firm requests a hearing, EPA will:

(i) Provide the affected entity an opportunity to offer written statements in response to EPA's assertions of the legal and factual basis for its proposed action.

(ii) Appoint an impartial official of EPA as Presiding Officer to conduct the hearing.

(3) The Presiding Officer will:

(i) Conduct a fair, orderly, and impartial hearing within 90 days of the request for a hearing.

(ii) Consider all relevant evidence, explanation, comment, and argument submitted.

(iii) Notify the affected entity in writing within 90 days of completion of the hearing of his or her decision and order. Such an order is a final agency action which may be subject to judicial review.

(4) If EPA determines that the public health, interest, or welfare warrants immediate action to suspend the certification of any individual or firm prior to the opportunity for a hearing, it will:

(i) Notify the affected entity in accordance with paragraph (b)(1)(i) through (b)(1)(iii) of this section, explaining why it is necessary to suspend the entity's certification before an opportunity for a hearing.

(ii) Notify the affected entity of its right to request a hearing on the immediate suspension within 15 days of the suspension taking place and the procedures for the conduct of such a hearing.

(5) Any notice, decision, or order issued by EPA under this section, any transcript or other verbatim record of oral testimony, and any documents filed by a certified individual or firm in a hearing under this section will be available to the public, except as otherwise provided by section 14 of TSCA or by part 2 of this title. Any such hearing at which oral testimony is presented will be open to the public, except that the Presiding Officer may exclude the public to the extent necessary to allow presentation of information which may be entitled to confidential treatment under section 14 of TSCA or part 2 of this title.

(6) EPA will maintain a publicly available list of entities whose certification has been suspended, revoked, modified or reinstated.

16. Section 745.220 is amended by revising paragraph (a) to read as follows:

§ 745.220 Scope and applicability.

(a) This subpart contains procedures and requirements for the accreditation of training programs for lead-based paint activities and renovations, procedures and requirements for the certification of individuals and firms engaged in lead-based paint activities, and work practice standards for performing such activities. This subpart also requires that, except as discussed below, all lead-based paint activities, as defined in this subpart, be performed by certified individuals and firms.

* * * * *

17. Section 745.225 is amended as follows:

- a. Revise paragraph (a).
- b. Revise the introductory text of paragraph (b), revise paragraph (b)(1)(ii), and add paragraph (b)(1)(iv)(C).
- c. Revise the introductory text of paragraph (c) and paragraph (c)(8)(iv), add paragraphs (c)(6)(vi), (c)(6)(vii), and (c)(8)(vi), and revise paragraph (c)(10).
- d. Amend paragraph (c)(13) by replacing the phrase "lead-based paint activities" with the phrase "renovator, dust sampling technician, or lead-based paint activities" wherever it appears in the paragraph.
- e. Add paragraphs (d)(6) and (d)(7).
- f. Revise the introductory text of paragraph (e).
- g. Amend paragraph (e)(1) by removing the word "activities" wherever it appears in the paragraph.
- h. Revise paragraph (e)(2).

§ 745.225 Accreditation of training programs; target housing and child-occupied facilities.

(a) *Scope.* (1) A training program may seek accreditation to offer courses in any of the following disciplines: Inspector, risk assessor, supervisor, project designer, abatement worker, renovator, and dust sampling technician. A training program may also seek accreditation to offer refresher courses for each of the above listed disciplines.

(2) Training programs may first apply to EPA for accreditation of their lead-based paint activities courses or refresher courses pursuant to this section on or after August 31, 1998. Training programs may first apply to EPA for accreditation of their renovator or dust sampling technician courses or refresher courses pursuant to this section on or after [insert date 1 year after date of publication of the final rule in the **Federal Register**].

(3) A training program must not provide, offer, or claim to provide EPA-accredited lead-based paint activities courses without applying for and receiving accreditation from EPA as

required under paragraph (b) of this section on or after March 1, 1999. A training program must not provide, offer, or claim to provide EPA-accredited renovator or dust sampling technician courses without applying for and receiving accreditation from EPA as required under paragraph (b) of this section on or after [insert date 60 days after date of publication of the final rule in the **Federal Register**].

(b) *Application process.* The following are procedures a training program must follow to receive EPA accreditation to offer lead-based paint activities courses, renovator courses, or dust sampling technician courses:

- (1) * * *
 - (ii) A list of courses for which it is applying for accreditation. For the purposes of this section, courses taught in different languages are considered different courses, and each must independently meet the accreditation requirements.
- (iv) * * *
 - (C) When applying for accreditation of a course in a language other than English, a signed statement from a qualified, independent translator that they had compared the course to the English language version and found the translation to be accurate.

(c) *Requirements for the accreditation of training programs.* For a training program to obtain accreditation from EPA to offer lead-based paint activities courses, renovator courses, or dust sampling technician courses, the program must meet the following requirements:

- (6) * * *
 - (vi) The renovator course must last a minimum of 8 training hours, with a minimum of 2 hours devoted to hands-on training activities. The minimum curriculum requirements for the renovator course are contained in paragraph (d)(6) of this section. Hands-on training activities must cover renovation methods that minimize the creation of dust and lead-based paint hazards, interior and exterior containment and cleanup methods, and post-renovation cleaning verification.
 - (vii) The dust sampling technician course must last a minimum of 8 training hours, with a minimum of 2 hours devoted to hands-on training activities. The minimum curriculum requirements for the dust sampling technician course are contained in paragraph (d)(7) of this section. Hands on training activities must cover dust sampling methodologies.

* * * * *

- (8) * * *
 - (iv) For initial inspector, risk assessor, project designer, supervisor, or abatement worker course completion certificates, the expiration date of interim certification, which is 6 months from the date of course completion.

* * * * *

(vi) The language in which the course was taught.

* * * * *

(10) Courses offered by the training program must teach the work practice standards contained in § 745.85 or § 745.227, as applicable, in such a manner that trainees are provided with the knowledge needed to perform the renovations or lead-based paint activities they will be responsible for conducting.

* * * * *

- (d) * * *
 - (6) *Renovator.* (i) Role and responsibility of a renovator.
 - (ii) Background information on lead and its adverse health effects.
 - (iii) Background information on Federal, State, and local regulations and guidance that pertains to lead-based paint and renovation activities.
 - (iv) Procedures for using acceptable test kits to determine whether paint is lead-based paint.
 - (v) Renovation methods to minimize the creation of dust and lead-based paint hazards.
 - (vi) Interior and exterior containment and cleanup methods.
 - (vii) Methods to ensure that the renovation has been properly completed, including clean-up verification, and clearance testing.
 - (viii) Waste handling and disposal.

(7) *Dust sampling technician.* (i) Role and responsibility of a dust sampling technician.

- (ii) Background information on lead and its adverse health effects.
- (iii) Background information on Federal, State, and local regulations and guidance that pertains to lead-based paint and renovation activities.
- (iv) Dust sampling methodologies.
- (v) Clearance standards and testing.
- (vi) Report preparation.

* * * * *

(e) *Requirements for the accreditation of refresher training programs.* A training program may seek accreditation to offer refresher training courses in any of the following disciplines: Inspector, risk assessor, supervisor, project designer, abatement worker, renovator, and dust sampling technician. To obtain EPA accreditation to offer refresher training, a training program must meet the following minimum requirements:

* * * * *

(1) * * *

(2) Refresher courses for inspector, risk assessor, supervisor, and abatement worker must last a minimum of 8 training hours. Refresher courses for project designer, renovator, and dust sampling technician must last a minimum of 4 training hours.

* * * * *

18. Section 745.320 is amended by revising paragraph (c) to read as follows:

§ 745.320 Scope and purpose.

* * * * *

(c) A State or Indian Tribe may seek authorization to administer and enforce all of the provisions of subpart E of this part or just the pre-renovation education provisions of subpart E of this part. The provisions of §§ 745.324 and 745.326 apply for the purposes of such program authorizations.

* * * * *

19. Section 745.324 is amended as follows:

a. Revise paragraph (a)(1).

b. Delete the phrase "lead-based paint training accreditation and certification" from the second sentence of paragraph (b)(1)(iii).

c. Revise paragraph (b)(2)(ii).

d. Revise paragraphs (e)(2)(i) and (e)(4).

e. Revise paragraph (f)(2).

f. Revise paragraph (i)(8).

§ 745.324 Authorization of State or Tribal programs.

(a) *Application content and procedures.* (1) Any State or Indian Tribe that seeks authorization from EPA to administer and enforce the provisions of subpart E or subpart L of this part must submit an application to the Administrator in accordance with this paragraph.

* * * * *

(b) * * *

(2) * * *

(i) * * *

(ii) An analysis of the State or Tribal program that compares the program to the Federal program in subpart E or subpart L of this part, or both. This analysis must demonstrate how the program is, in the State's or Indian Tribe's assessment, at least as protective as the elements in the Federal program at subpart E or subpart L of this part, or both. EPA will use this analysis to evaluate the protectiveness of the State or Tribal program in making its determination pursuant to paragraph (e)(2)(i) of this section.

* * * * *

(e) * * *

(2) * * *

(i) The State or Tribal program is at least as protective of human health and

the environment as the corresponding Federal program under subpart E or subpart L of this part, or both; and

* * * * *

(4) If the State or Indian Tribe applies for authorization of State or Tribal programs under both subpart E and subpart L, EPA may, as appropriate, authorize one program and disapprove the other.

* * * * *

(f) * * *

(2) If a State or Indian Tribe does not have an authorized program to administer and enforce the pre-renovation education requirements of subpart E of this part by August 31, 1998, the Administrator will, by such date, enforce those provisions of subpart E of this part as the Federal program for that State or Indian Country. If a State or Indian Tribe does not have an authorized program to administer and enforce the training, certification and accreditation requirements and work practice standards of subpart E of this part by [insert date 1 year after date of publication of the final rule in the **Federal Register**], the Administrator will, by such date, enforce those provisions of subpart E of this part as the Federal program for that State or Indian Country.

* * * * *

(i) * * *

(8) By the date of such order, the Administrator will establish and enforce the provisions of subpart E or subpart L of this part, or both, as the Federal program for that State or Indian Country.

20. Section 745.326 is revised to read as follows:

§ 745.326 Renovation: State and Tribal program requirements.

(a) *Program elements.* To receive authorization from EPA, a State or Tribal program must contain the following program elements:

(1) For pre-renovation education programs, procedures and requirements for the distribution of lead hazard information to owners and occupants of target housing before renovations for compensation.

(2) For renovation training, certification, accreditation, and work practice standards programs:

(i) Procedures and requirements for the accreditation of renovation and dust sampling technician training programs.

(ii) Procedures and requirements for the certification of renovators and dust sampling technicians.

(iii) Procedures and requirements for the certification of individuals and/or firms.

(iv) Requirements that all renovations be conducted by appropriately certified individuals and/or firms.

(v) Work practice standards for the conduct of renovations.

(3) For all renovation programs, development of the appropriate infrastructure or government capacity to effectively carry out a State or Tribal program.

(b) *Pre-renovation education.* To be considered at least as protective as the Federal program, the State or Tribal program must:

(1) Establish clear standards for identifying renovation activities that trigger the information distribution requirements.

(2) Establish procedures for distributing the lead hazard information to owners and occupants of housing prior to renovation activities.

(3) Require that the information to be distributed include either the pamphlet titled *Protect Your Family from Lead During Renovation, Repair & Painting*, developed by EPA under section 406(a), or an alternate pamphlet or package of lead hazard information that has been submitted by the State or Tribe, reviewed by EPA, and approved by EPA for that State or Tribe. Such information must contain renovation-specific information similar to that in *Protect Your Family from Lead During Renovation, Repair & Painting*, must meet the content requirements prescribed by section 406(a) of TSCA, and must be in a format that is readable to the diverse audience of housing owners and occupants in that State or Tribe.

(i) A State or Tribe with a pre-renovation education program approved before [insert date 60 days after date of publication of the final rule in the **Federal Register**] must demonstrate that it meets the requirements of this section no later than the first report that it submits pursuant to § 745.324(h) of this subpart on or after [insert date 1 year after date of publication of the final rule in the **Federal Register**].

(ii) A State or Tribe with an application for approval of a pre-renovation education program submitted but not approved before [insert date 60 days after date of publication of the final rule in the **Federal Register**] must demonstrate that it meets the requirements of this section either by amending its application or in the first report that it submits pursuant to § 745.324(h) of this part on or after [insert date 1 year after date of publication of the final rule in the **Federal Register**].

(iii) A State or Indian Tribe submitting its application for approval

of a pre-renovation education program on or after [insert date 60 days after date of publication of the final rule in the **Federal Register**] must demonstrate in its application that it meets the requirements of this section.

(c) *Accreditation of training programs.* To be considered at least as protective as the Federal program, the State or Tribal program must meet the requirements of either paragraph (c)(1) or (c)(2) of this section:

(1) The State or Tribal program must establish accreditation procedures and requirements, including:

(i) Procedures and requirements for the accreditation of training programs, including, but not limited to:

(A) Training curriculum requirements.

(B) Training hour requirements.

(C) Hands-on training requirements.

(D) Trainee competency and proficiency requirements.

(E) Requirements for training program quality control.

(ii) Procedures and requirements for the re-accreditation of training programs.

(iii) Procedures for the oversight of training programs.

(iv) Procedures and standards for the suspension, revocation, or modification of training program accreditations; or

(2) The State or Tribal program must establish procedures and requirements

for the acceptance of renovation training offered by training providers accredited by EPA or a State or Tribal program authorized by EPA under this subpart.

(d) *Certification of renovators.* To be considered at least as protective as the Federal program, the State or Tribal program must:

(1) Establish procedures and requirements for individual certification that ensure that certified renovators are trained by an accredited training program.

(2) Establish procedures and requirements for re-certification.

(3) Establish procedures for the suspension, revocation, or modification of certifications.

(e) *Work practice standards for renovations.* To be considered at least as protective as the Federal program, the State or Tribal program must establish standards that ensure that renovations are conducted reliably, effectively, and safely. At a minimum, the State or Tribal program must contain the following requirements:

(1) Renovations must be conducted only by certified contractors.

(2) Renovations are conducted using lead-safe work practices that are at least as protective to occupants as the requirements in § 745.85.

(3) Certified contractors must retain appropriate records.

21. Section 745.327 is amended by revising paragraphs (b)(1)(iv) and (b)(2)(ii) to read as follows:

§ 745.327 State or Indian Tribal lead-based paint compliance and enforcement programs.

* * * * *

(b) * * *

(1) * * *

(iv) Requirements that regulate the conduct of renovation activities as described at § 745.326.

(2) * * *

(ii) For the purposes of enforcing a renovation program, State or Tribal officials must be able to enter a firm's place of business or work site.

* * * * *

22. Section 745.339 is revised to read as follows:

§ 745.339 Effective dates.

States and Indian Tribes may seek authorization to administer and enforce subpart L of this part pursuant to this subpart at any time. States and Indian Tribes may seek authorization to administer and enforce subpart E of this part pursuant to this subpart effective [insert date 60 days after date of publication of the final rule in the **Federal Register**].

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