

**Economic Analysis for the
TSCA Section 402
Lead-Based Paint Program Accreditation and Certification Fee Rule**

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ES 1. Executive Summary

This report supports the development of revised fees for the Lead-based Paint Activities (i.e. the Abatement rule) program and initial fees for the Lead Renovation, Repair, and Painting Program (i.e. LRRP rule) program. It presents the results of the following analyses:

- Estimation of the EPA costs of each of the two programs,
- Development of a fee structure that would generate revenues sufficient to cover these costs, and
- Analysis of the potential impact of these revised/new fees on small entities.

Under Section 402 of TSCA Subchapter IV, EPA is authorized to collect accreditation and certification fees to cover the costs of administering and enforcing the Abatement and LRRP programs.¹

On August 29, 1996, EPA established accreditation requirements for training programs and certification requirements for firms and individuals performing lead-based paint activities in target housing or child-occupied facilities – the Abatement rule. This rule established five lead-based paint disciplines which required training and certification. The final rule establishing a fee schedule for Abatement rule training programs seeking accreditation, and individuals and firms seeking certification, was promulgated on June 9, 1999.²

On March 31, 2008, EPA established similar accreditation and certification requirements under the LRRP rule for training providers and entities performing renovation activities that disturb painted surfaces in target housing and COFs built before 1978. EPA is in the process of setting fees under the LRRP rule.

ES 1.1. Summary of Findings

For this analysis, EPA conducted a Time-Motion study of the hours and personnel required to process applications under the Abatement rule in three Regions. These data, along with information on the average number of applications processed per year over the FY 2003 – FY 2006 period were used to estimate the application processing costs for the Abatement rule. Information on other administrative and enforcement activities was collected from these three regions and headquarters. Together this information provided the basis for estimating the costs of the Abatement rule program. The Time-Motion study results were also combined with application estimates developed for the LRRP economic analysis to estimate likely Agency costs for the LRRP rule program.

Based on the results of these analyses, EPA determined that, while the current fee structure was generating revenues that were about equal to the costs of the program, the fee structure could be

¹ With Title X: The Residential Lead-Based Paint Hazard Reduction Act, of the Housing and Community Development Act of 1992, Congress amended several existing housing, worker safety, and environmental statutes, and added Subchapter IV: Lead Exposure Reduction to the Toxic Substances Control Act (TSCA).

² See U.S EPA, Lead in Paint, Dust and Soil, Training and Certification Program for Lead-Based Paint Activities in Target Housing and Child Occupied Facilities - Section 402/404, 64 Fed. Reg. 31,092 (June 9, 1999) (<http://www.epa.gov/lead/pubs/leadcert.htm>, viewed on May 9, 2008).

simplified. The original fee structure was developed under the assumption that the time needed to process an application would vary with the discipline involved; but the Time-Motion study demonstrated that there was little difference in processing costs across disciplines. Under EPA's preferred fee schedule, however, the fee charged to workers under the Abatement rule will be \$100 less than the fee charged other individuals. In this way, EPA hopes to encourage more abatement workers to become certified. In addition, tribes will be charged \$20 for firm certifications and \$10 for individual certifications. Under the LRRP rule, only training providers and firms will pay fees. Firms applying for both an Abatement certification and a LRRP certification will only be charged for the more expensive certification, which is the Abatement certification. Renovators need to be trained but do not receive a certification from EPA and thus do not have to pay a fee.³

While the majority of entities affected by the fees are small, EPA determined that the impact of the revised Abatement rule and the new LRRP rule fees on these small entities would not be significant. The following sections present more information on each of these topics, and the following chapters and appendices present the analysis in detail.

ES 1.1.1. Abatement Rule Estimates

The cost estimates for Abatement rule fees (when the rule was first promulgated in 1999) were based upon then current EPA assumptions about the number of applicants and the length of time required to process the applications, conduct administrative activities, and enforce the rule. The analysis in this report updates the 1999 framework with information from EPA Headquarters and Regions on the actual number of applications that have been processed and their processing time. The key steps are:

- Forecast the annual number of applications;
- Estimate the total annual program costs, including regional and headquarters processing, administrative and enforcement costs;
- Calculate the fee levels to meet the annual program costs.

EPA incurs administration and enforcement costs only in States and Tribal areas that do not seek or are not granted authorization to operate their own programs. EPA Headquarters receives all applications for EPA-administered states and areas, uploads the information into the Federal Lead Paint Program (FLPP) database, and then electronically sends the application to the lead region for review and approval.

On average during the FY2003 to FY2006 period, 2,772 applications were processed each year. Slightly over half (55 percent) of the applications were for individual certifications (across all disciplines). The number of applications processed differs widely among EPA Regions, with Region 2 processing 72 percent of all the applications.

ES 1.1.2. Abatement Rule Processing Costs

The regions incur the majority of the burden of reviewing and approving the applications. Specific activities include:

- Examining applications for completeness and verifying compliance with all applicable requirements for accreditation or certification.
- Tracking accredited training programs and certified firms and other related support activities.

³ They receive their certification directly from their training provider.

- On-site review of the training programs being considered for accreditation.
- Clerical activities such as receiving, logging, filing, storing, and updating applications and other correspondence

Once an application is approved, there are additional processing activities for producing and issuing certificates and worker identification cards.

EPA Regions have not tracked the time involved with these activities in the past. Accordingly, EPA conducted a Time-Motion Study for this analysis to estimate the average hours spent processing each type of application. Regions 2, 4, and 9 participated in the study, covering the majority of applications annually. The study was conducted over a 30-day period between October and November 2007.

For each application processed, the regions recorded the application identification number, whether the region was a lead region, application type (including discipline), and the date approved or disapproved. Under each activity, EPA staff recorded the number of minutes spent, as well as the level of the staff performing the task (i.e., Clerical Senior Environmental Employee (SEE), Clerical EPA, Technical SEE, Technical EPA or Managerial EPA).

Based on the study results, EPA calculated the average processing time for each application type by region. Based on EPA wage rate information for 2007, EPA estimated the average processing cost per application for each Region.

No significant difference was found among the five disciplines. Therefore, EPA assumes that the application processing time does not vary by discipline for either training providers or individuals. However, the average processing time for each application was significantly lower for Region 2. This is primarily due to systems Regions 2 has in place to efficiently process their high volume of applications. Accordingly, the weighted average processing time for Regions 4 and 9 was used to estimate the average processing time for all the regions, except for Region 2.⁴ See Table ES- 1.

Table ES- 1. Average Processing Time and Processing Costs for Region 2, and Weighted Average for Regions 4 and 9 (National Estimate).

Average Processing Time (Hours/Application) and Costs (Dollars/Application)					
Application Type	Certification/ Re-certification	Processing Time (Hours/Application)		Average Processing Costs (Dollars/Application)	
		Region 2	National Estimate (Weighted Average Region 4 & 9)	Region 2	National Estimate (Weighted Average Region 4 & 9)
Firm	Initial	0.4	1.5	\$9	\$27
Firm	Recertification	0.4	1.3	\$9	\$25
Individual	Initial	0.5	1.8	\$11	\$36
Individual	Recertification	0.6	1.4	\$12	\$27
Individual	Disapproval	0.9	1.8	\$18	\$32
Training Provider	Accreditation	8.5	26.1	\$159	\$492
Training Provider	Re-Accreditation	1.5	4.5	\$29	\$94

⁴ Given the limited data from Region 4 for firms and training providers, the processing time reported from Region 9 was used for all regions except Region 2.

Multiplying these costs per application by the number of applications generates an estimate of the total annual processing costs of the Abatement rule. As shown in Table ES- 2, regional processing costs are about \$57 thousand per year.

Table ES- 2. Summary of Annual Average Regional Processing Cost.

Program	Weighted Average Cost Per Application			Total Average Annual Processing Cost ¹⁴
	Region 2 ¹¹	All Other Regions ¹²	ALL REGIONS ¹³	
Initial - All Disciplines	\$159	\$492	\$330	\$5,778
Refresher - All Disciplines	\$67	\$207	\$148	\$2,670
Initial - All Disciplines	\$29	\$94	\$81	\$5,390
Refresher - All Disciplines	\$12	\$40	\$36	\$2,129
Initial Certification	\$9	\$27	\$13	\$3,530
Firm Re-Certification	\$9	\$25	\$15	\$2,691
Initial Certification - All Disciplines	\$11	\$36	\$16	\$24,078
Individual RE-certification - All Disciplines	\$12	\$27	\$17	\$10,809
TOTAL				\$57,074

¹¹ Based on cost per application for Region 2 in FY2007 Lead Fees Time-Motion Study.
¹² Based on average cost per application for Region 4 and 9 in FY2007 Lead Fees Time-Motion Study.
¹³ Weighted average cost per application based on average number of applications from FY2003 to FY2006.
¹⁴ Estimated by multiplying cost per application by number of applications for Region 2 and All Other Regions.

ES 1.1.3. Abatement Rule Administrative and Enforcement Costs

In addition to processing costs, regions incur costs for other administrative activities such as answering phone inquires from the public regarding the Section 402 program, following up on the status of applications, providing information to other regions, coordinating with headquarters, and performing other customer service activities. They also have enforcement activities such as conducting audits of training providers and firms.

Regions 2, 4, and 9 provided estimates of the number of hours spent performing these activities by wage type. These estimates, obtained through questionnaires and telephone interviews conducted in the fall of 2007, were largely based on professional judgment and the experience of the regional staff that conduct and oversee these activities. Consistent with the approach used for estimating the regional processing cost, EPA assumed the cost per application for the other Regions was the average between Regions 4 and 9.⁵ Then EPA multiplied the estimated cost per application for the other regions by the number of applications processed in FY 2006 to estimate the average annual administrative cost for the other regions. This resulted in an estimated annual total regional administrative cost of \$151,532.

To estimate the average annual regional enforcement cost, EPA summed the average annual enforcement costs from Regions 2, 4, and 9, and added an estimate for the other regions (1, 5, 6, 7, 8, and 10)⁶ based on the average enforcement cost for Regions 4 and 9 per application. This resulted in an estimated total regional enforcement cost of \$152,761.⁷

⁵ Regions 2 and 4 indicated that administrative costs are not necessarily proportional to the number of applications

⁶ Region 3 was not included in the estimates because all of their states have authorized Abatement rule programs and they received no applications during the 2003-2006 data collection period.

⁷ Discussions with regions suggested the enforcement costs are largely depended on available funding not on the number of

EPA Headquarters undertakes various administrative and enforcement activities under the Abatement rule. Their administrative activities include:

- Coordination with the regions.
- Maintenance of the central database and registry (i.e. the FLPP Database) -- activities largely conducted by a contractor
- Administration of certification examinations -- activities largely conducted by a contractor.

Table ES- 3 presents a summary of the EPA Headquarters costs, which total \$849,214 per year. The costs are estimated by multiplying the amount of FTEs required to conduct these tasks by 2007 EPA wage rates, with FTE estimates based on the annual historical averages since the Abatement rule was enacted in 1999. Similarly, the contractor support costs are based on the average annual contract costs from 2002 (the year the FLPP database was implemented) to 2007.

Table ES- 3. Summary of Headquarters Activities and Annual Costs for the Abatement Rule Program

Annual Cost Activities	Labor type	Rate per FTE (\$/FTE)	FTE	Annual Cost (\$)
Administrative: Headquarters Support ¹	Technical (GS 11)	\$76,777	1.00	\$76,777
Enforcement ²	Technical (GS 12)	\$95,081	0.10	\$9,508
Administrative: Contractor Support ³				\$762,929
Total EPA Headquarters Cost				\$849,214
¹ Based on estimate of number of HQ FTE that work on Abatement rule annually. ² Based on discussions with OECA staff on enforcement activities related to the Abatement rule. ³ Based on actual contractor support expenditures to operate and maintain FLPP database from July 2002 to August 2007.				

ES 1.1.4. Total Annual Abatement Rule Costs

EPA estimates a total annual cost for the Abatement rule program of approximately \$1.2 million, of which 69 percent accounts for administrative headquarter costs. Some of this cost is offset by the revenues EPA generates from the Certification Exam fee, estimated to be nearly \$55 thousand per year.⁸ After accounting for this revenue, the net total costs that need to be recovered through accreditation and certification fees under the Abatement rule program are \$1.16 million (see Table ES- 4).

applications received.

⁸ Certification Exam Fee (\$70) multiplied by the annual average number of individual inspectors, risk assessors, and supervisors who took the exam from FY2003 to FY2006 (781 applicants), based on the FLPP database.

Table ES- 4. Summary of Annual Abatement Rule Costs

Activity	Annual Cost	Percent of Total Annual Costs
Regional		
Regional Processing Costs	\$57,074	5%
Regional Administrative Costs	\$151,532	13%
Regional Enforcement Costs (Average)	\$152,761	13%
Headquarters		
Headquarters Administrative Costs	\$839,706	69%
Headquarters Enforcement Costs	\$9,508	1%
TOTAL		
Total EPA Costs	\$1,210,580	100%
Revenues from Certification Exam Fee	\$(54,670)	---
TOTAL NET COST TO EPA	\$1,155,910	---

ES 1.1.5. Abatement Rule Fees

In structuring the fee schedule, EPA considered two key questions:

- (1) How should EPA assign costs that cannot be attributed to specific applications, such as regional and headquarters administrative and enforcement costs?
- (2) How many different categories should be used for training providers and individuals?

EPA’s preferred option simplifies the fee structure by assessing the same fee for all training provider accreditations and the same fee for all individual certifications in non-worker disciplines. Analysis of the Time-Motion Study data and discussions with regions indicated that there is not a significant differential in processing applications from different disciplines. In addition, EPA’s preferred fee schedule specifies: (1) a lower fee for workers as compared to the fee for other individuals, (2) a nominal fee for tribe firm and individual certifications, and (3) that firms applying for both an Abatement certification and a LRRP certification will only be charged for the more expensive certification.

Table ES- 5 shows the calculation of the fees with fixed costs allocated equally to each application (Option 1). Option 2 (the preferred option) in the table adjusts these fees by: (1) creating a worker fee that is \$100 less than the Option 1 fees, and (2) reducing fees for tribe firm and individual certifications. The lost revenue from the worker fee reduction is distributed across the other non-individual fees and the lost revenue from the reduced tribe fees are distributed across the firm and individual fees, excluding the worker fee. The fees are redistributed so that the total revenues are the same under Options 1 and 2. Because over one-half of the applications are individual applications, the reduction in the worker fee results in a substantial offsetting increase in the firm and individual fees (total increases to firms and training providers range from \$143 to \$145).

A third option, Option 3, was considered that would simply reduce all the current fees by 94.6 percent so that the revenues generated would better match the costs of the program. This approach,

however, would retain an overly complicated system with fee differentials that are not supported by the Time-Motion study.

Table ES- 5: Abatement Rule Fee Structure

Program	Average Processing Cost per Applicant ¹ [A]	Fixed Cost ² [B]	Option 1 Total Cost/Fee [C]=[A]+[B]	Option 2 (Preferred Option) Lower Worker and Tribal Fees
Training Program Accreditation				
Initial	\$330	\$396	\$727	\$870
Refresher	\$148	\$396	\$545	\$688
Training Program Reccreditation				
Initial	\$81	\$396	\$478	\$621
Refresher	\$36	\$396	\$433	\$576
Firm Certification				
Initial	\$13	\$396	\$409	\$555
Recertification	\$15	\$396	\$412	\$557
Individual				
Initial (Same fee for Workers and Others)	\$16	\$396	\$412	
Recertification (Same fee for Workers and Others)	\$17	\$396	\$414	
Individual Certification (Excluding workers)				\$414
Individual Certification - Workers Only				\$312
Individual Recertification (Excluding workers)				\$416
Individual Recertification - Workers Only				\$314
Tribal Firms and Individuals				
Firm Initial and Recertification				\$20
Individual Initial and Recertification				\$10
¹ Average processing cost based on weighted average of processing costs for Regions 2, 4, & 9. ² Fixed amount and ratio method based on total estimated processing, administrative, and enforcement costs over three years.				

ES 1.2. LRRP Rule Estimates

The Lead, Renovation, Repair, and Painting (LRRP) program applies to renovation activities in target housing and child-occupied facilities (COFs). Under the LRRP rule, firms that are subject to the regulations need to obtain EPA certification, and training providers must obtain accreditation for their LRRP courses. Estimates of the costs that EPA is likely to incur are based on the Abatement rule framework described above, using estimates of the LRRP regulated universe from *the Economic Analysis for the TSCA Lead Renovation, Repair, and Painting Program Final Rule for Target Housing and Child-Occupied Facilities* (Economic Analysis for the LRRP Final Rule).

Because the Abatement rule has been in effect for about 10 years, the analysis above estimated the number of applicants assuming that the program had reached a steady-state. The LRRP rule, however, is new and it is anticipated that the number of applicants in the first year will be much greater than those in subsequent years.

- EPA assumes the number of new accreditations and certifications will meet the demand for LRRP activities in the first year.
- The LRRP rule requires reaccreditation and recertification every five years.
- To meet the estimated demand between years 2 and 5, EPA assumes that new accreditations and certifications will be required to replace firms and training providers that “drop-out” of the LRRP program. This “drop-out” rate is assumed to be consistent with the “drop-out” rate under the Abatement rule.

ES 1.2.1. Regional LRRP Processing Cost

To estimate the regional processing time and cost for the LRRP rule, EPA assumes the activities and processing time for firm and training provider applications will be equivalent to those under the Abatement rule. Based on the Time-Motion study results, EPA calculated the average processing time for firm and training provider applications by region. Because Region 4 did not process any firm and training provider applications during the Time-Motion Study period, for the LRRP rule estimates EPA used the average processing time reported by Regions 2 and 9. The estimated processing time and costs are shown in Table ES- 6.

Table ES- 6. Summary of Average Processing Time and Processing Costs for Regions 2 and 9, including a Weighted Average for a National Estimate.

Average Processing Time and Processing Costs					
Application Type	Certification/ Re-certification	Region 2	Region 9	Weighted Average Processing Time (Hours/Application) (Regions 2, 9) ¹	Weighted Average Processing Costs (Dollars/Application) (Regions 2, 9)
Firm	Initial	0.4	1.5	0.5	\$11
Firm	Recertification	0.4	1.3	0.6	\$12
Training Provider	Accreditation	8.5	26.1	14.8	\$277
Training Provider	Re-Accreditation	1.5	4.5	2.9	\$59

¹ For firms, number of applications in Tim-Motion study used as weights; for training providers, numbers of applications in FLLP data were used as the weights. See Chapter 3.

As with the Abatement rule estimates, a 42 percent difference in relative burden between the initial and refresher courses was assumed.

Under the LRRP rule, EPA does not certify or review renovator or sampling technician applications. The certification that these individuals receive from training providers after completing their training course will serve as their certification. EPA will receive notification from the training provider for each certification, including a digital photo, which headquarters will upload to the FLPP database. Therefore, EPA assumed a negligible processing cost for renovators and sampling technicians.

ES 1.2.2. Regional and Headquarters LRRP Administrative and Enforcement Cost

Regional administrative activities include answering phone inquires from the public regarding the LRRP program, following up on the status of applications, providing information to other regions, coordinating with headquarters, and performing other customer service activities. Enforcement activities include conducting audits of training providers and firms.

EPA assumed the average LRRP administrative cost per application is equivalent to the costs under the Abatement rule, which EPA calculated to be approximately \$55 per application. Multiplying the average administrative cost per application by the number of training provider and firm applications anticipated for the first five years after the LRRP rule is promulgated provides an estimate of the annual regional administrative costs for the LRRP rule (Table ES- 7).

Table ES- 7. Average Administrative Cost for the First Five Years of the LRRP Rule.

Program	Year 1	Year 2	Year 3	Year 4	Year 5
Number of Training Providers	168	16	15	15	15
Number of Firms	211,721	72,259	71,962	71,667	71,373
Average Annual Administrative Cost	\$11,584,004	\$3,951,236	\$3,935,036	\$3,918,902	\$3,902,835

EPA also assumed the average annual regional enforcement cost for the LRRP rule is equivalent to the Abatement rule. Assuming 13.7 FTEs yields an annual average regional enforcement cost of about \$1.3 million.

Headquarters will incur costs for three types of activities: start-up costs, costs to administer the program, and enforcement costs. The startup activities will be related to modifying the FLPP database for the LRRP applications, preparing new applications and instruction forms, and preparing evaluation forms. EPA estimates that the one-time costs associated with these activities will total \$59,562, or \$14,226 annualized over five years.

Similar to the Abatement rule, the administrative activities associated with the LRRP rule will primarily include:

- Coordination with the regions.
- Maintenance of the central database and registry.

Consistent with administrative costs for the Abatement rule, EPA estimates that support for these activities will require at least one full time Technical EPA employee, totaling approximately \$76,777 annually. In addition to the headquarters personnel, EPA will require contractor support to manage and maintain the FLPP database. To estimate the contractor support costs for training providers and firms, EPA calculated the contractor support cost per application under the Abatement rule, or \$210 per application. There will also be FLPP contractor costs for renovator and sampling technician notifications, assumed to be \$5 per application. Next, the cost to maintain the database annually (\$180,000) is added to obtain the total annual contractor support costs.

It is important to note that using a per application cost based on the Abatement rule may overestimate the costs as it assumes that the contractor support costs (except for the maintenance costs) are variable. Given the high volume of firm and training provider applicants under the LRRP rule (211,889 applications in the first year) as compared to the Abatement rule (2,772 annually), any overestimate in the per unit cost could result in a substantial overestimate of the total cost.

Because applications for renovators and sampling technicians will be processed via training providers, EPA Headquarters will only incur database and maintenance support costs for these applicants. EPA estimates that the renovator and sampling technician portion of these costs would total approximately \$1.3 million and \$17 thousand respectively.

As stated in the LRRP Economic Analysis, the Office of Enforcement and Compliance Assurance (OECA) estimates two Technical level employees will be required to support enforcement activities annually, at an annual cost of \$190,162.

ES 1.2.3. Total Annual LRRP Rule Costs

Based on the estimated regional and headquarters costs, the total first year costs to EPA are estimated to be approximately \$61.5 million, of which approximately \$60.2 million are for firm and training provider activities. In years 2 through 5, the total costs will be approximately \$22 million a year, for a total over the first five years of approximately \$150 million. (See Table ES- 8.)

Table ES- 8. Annual Total Costs for the First Five Years of the LRRP Rule.

Cost	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Estimated Number of Applications: Firms and Training Providers	212,057	72,290	71,993	71,698	71,404	499,442
Total Regional Processing Costs	\$ 2,349,078	\$ 785,272	\$ 782,052	\$ 778,846	\$ 775,653	\$ 5,470,900
Regional Administrative Costs	\$ 11,584,004	\$ 3,951,236	\$ 3,935,036	\$ 3,918,902	\$ 3,902,835	\$ 27,292,013
Regional Enforcement Costs	\$ 1,302,609	\$ 1,302,609	\$ 1,302,609	\$ 1,302,609	\$ 1,302,609	\$ 6,513,046
Headquarters Administrative Costs	\$ 44,751,517	\$ 15,374,952	\$ 15,312,611	\$ 15,250,526	\$ 15,188,695	\$ 105,878,301
Headquarters Enforcement Costs	\$ 190,162	\$ 190,162	\$ 190,162	\$ 190,162	\$ 190,162	\$ 950,810
Total Regional and HQ Enforcement and Administrative Costs	\$ 57,828,292	\$ 20,818,958	\$ 20,740,418	\$ 20,662,199	\$ 20,584,301	\$ 140,634,169
TOTAL FIRMS AND TRAINING PROVIDER COST TO EPA	\$ 60,177,370	\$ 21,604,230	\$ 21,522,470	\$ 21,441,045	\$ 21,359,954	\$ 146,105,069
Estimated Number of Applications: Renovators	235,916	94,829	94,440	94,053	93,667	612,904
Headquarters Administrative Costs	\$1,273,742	\$575,518	\$573,574	\$571,638	\$569,710	\$3,564,183
Total Regional and HQ Enforcement and Administrative Costs	\$1,273,742	\$575,518	\$573,574	\$571,638	\$569,710	\$3,564,183
TOTAL RENOVATOR COST TO EPA	\$1,273,742	\$575,518	\$573,574	\$571,638	\$569,710	\$3,564,183
Estimated Number of Applications: Sampling Technicians	3,170	1,274	1,269	1,264	1,259	8,236
Headquarters Administrative Costs	\$17,115	\$7,733	\$7,707	\$7,681	\$7,655	\$47,892
Total Regional and HQ Enforcement and Administrative Costs	\$17,115	\$7,733	\$7,707	\$7,681	\$7,655	\$47,892
TOTAL SAMPLING TECHNICIAN COST TO EPA	\$17,115	\$7,733	\$7,707	\$7,681	\$7,655	\$47,892
TOTAL LRRP RULE COST TO EPA	\$61,468,227	\$22,187,481	\$22,103,751	\$22,020,364	\$21,937,319	\$149,717,144

ES 1.2.4. LRRP Rule Fees

To estimate fees for the LRRP rule, EPA followed the approach used to estimate fees of the Abatement rule. To structure the fees, EPA first considered the variable and fixed costs associated with each applicant type. The variable costs reflect the regional processing costs for each application type. The fixed costs include the regional and headquarters administrative and enforcement costs, which apply across all the applications. EPA divided the total regional enforcement and administrative costs and the headquarters costs by the total estimated number of applicants over the five year projection period to obtain a fixed cost of \$282 for training providers and firms. Fixed costs for renovators and sampling technicians were estimated by dividing the headquarters administrative costs by the total number of applicants over the five year period to obtain a fixed cost of \$6 (see Table ES- 9).

Then EPA calculated the additional fee needed to cover the costs of renovators and sampling technicians. Given that every certified firm must have a least one certified renovator, and the close proportion of renovators to firms (a ratio of 1.3, or approximately 13 renovators for every 10 firms), it seemed more reasonable to link these costs to the firms than to training providers. An additional charge of \$7.50 for each firm certification would cover the costs of administering the renovator and sampling technician parts of the program. In addition, tribes will be charged a nominal fee (\$20 for firm applicants, and \$10 for individual certifications) and firms applying for both an Abatement certification and a LRRP certification will only be charged for the more expensive Abatement certification. Firms that are ineligible for these discounts will be charged an additional \$1.60 to cover the costs of the discounts.

Table ES- 9. Summary of Fee Estimates

Application	Average Processing Cost per Applicant (\$) ¹ [A]	Fixed Cost ² [B]	Total Cost/Fee [C]=[A]+[B]	Discount or Additional Fee ³ [D]	TOTAL FEE [E]=[C]+[D]
Training Program Accreditation					
Initial	\$277	\$282	\$558	\$0	\$558
Refresher	\$116	\$282	\$398	\$0	\$398
Training Program Reccreditation					
Initial	\$59	\$282	\$340	\$0	\$340
Refresher	\$25	\$282	\$306	\$0	\$306
Firm Certification					
Initial	\$11	\$282	\$292	\$9.10	\$301
Recertification	\$12	\$282	\$293	\$9.10	\$302
Tribal Firm Certification					
Initial	\$11	\$282	\$292	(\$272)	\$20
Recertification	\$12	\$282	\$293	(\$273)	\$20
Renovator Certification					
Initial	\$0	\$6	\$6	(\$6)	0
Recertification	\$0	\$6	\$6	(\$6)	0
Sampling Technician Certification					
Initial	\$0	\$6	\$6	(\$6)	0
Recertification	\$0	\$6	\$6	(\$6)	0
¹ Average processing cost based on weighted average of processing costs from the 2007 Time-Motion Study. ² Fixed amount and ratio method based on total estimated processing, administrative, and enforcement costs over three years. ³ \$7.50 of the \$9.10 additional fee is to cover EPA's costs associated with the renovator and sampling technician parts of the program. Individual certifications from EPA are not required for renovators or sampling technicians. \$1.60 of the \$9.10 additional fee to firms is to cover the costs of the discounts to tribes and abatement firms.					

ES 1.3. Impact on Small Entities

EPA conducted two small entities impact analyses – one for the revised Abatement rule fees and one for the LRRP rule fees. Because the majority of firms affected under either the Abatement rule or the LRRP rule are small, the analyses focused on the cost to revenue ratio for firms. The LRRP analysis also examined the impacts on small governments and small non-profit organizations.

Under the Abatement rule, EPA is reducing the fees for all training providers and for individual initial certification excluding workers and inspectors. Consequently, EPA estimates that there will be no adverse impact of the rule on training providers.⁹ While firms, workers and other individuals seeking recertification will experience a fee increase, EPA also estimates that there will not be a significant impact from these increases in fees. In the 1999 small entity impact analysis, EPA included the individual certification fee in assessing the impact of the rule on small firms. EPA had estimated that the cost-revenue ratio for the full amount of the certification fee is not more than 0.87 percent for all firms across all revenue categories. With the preferred option fees, firms incur a 3 percent to 30 percent cost

⁹ The tribes are charged a nominal fee of \$20 per firm and \$10 per individual certification, therefore tribes will incur even greater savings.

increase in the direct fee, and indirectly via fee increases for individuals (3 to 31 percent). With an overall cost-revenue ratio of well under 1 percent for the current fees, the impact of the increase in fees will have a very small affect on small entities. Likewise the resulting new fees will not have a significant impact on small entities.

Table ES- 10: Preferred Option Abatement Rule Fee Schedule

Program	Current Fee Schedule ¹	Preferred Option Fee Schedule	Percentage Change
Training Providers			
Initial Accreditation	\$2,259	\$870	-61%
Initial Refresher Course	\$1,005	\$688	-32%
Reaccreditation	\$1,426	\$621	-56%
Reaccreditation Refresher Course	\$691	\$576	-17%
Firms			
Firm Certification	\$540	\$555	3%
Firm Recertification	\$430	\$557	30%
Individuals			
Initial Certification (Excluding workers)	\$464	\$414	-11%
Initial Certification - Workers Only	\$280	\$312	11%
Recertification (Excluding workers)	\$404	\$416	3%
Recertification - Workers Only	\$240	\$314	31%
¹ Reflects weighted average based on current fees and annual number of applications between FY2003 to FY2006. The tribes are only charged a special nominal fee of \$20 per firm and \$10 per individual certification.			

For the LRRP rule, EPA estimates for the small entities that are potentially directly regulated by this rule include: small for-profit businesses (including renovation contractors, environmental testing firms, and property owners and managers); small nonprofits (including day care centers, private schools, and advocacy groups); and small governments (local governments, school districts). Because certifications are good for five years and accreditations are good for four years, a firm or training provider can spread the cost of the fees over several years. To reflect this, EPA estimated the impacts of the rule on each of the small entities by comparing the costs of the rule incurred by an establishment to the establishment's revenues for four scenarios, ranging from high to low impact:

1. Firms and training providers that are in business only for the first year,
2. Firms (training providers) that are in business for five years (four years),
3. Firms (training providers) that stay in business for the first five years (four years) after incurring initial fee and one year after incurring re-certification or re-accreditation fee -- a total of six (five) years in business,
4. Firms (training providers) that stay in business for first five years (four years) after incurring initial fee and for another five (four) years) after incurring re-certification and re-accreditation fee -- a total of ten (eight) years in business).

To measure the cost impact for each of these types of entities, EPA calculated the fee or fees annualized for the appropriate number of years and estimated the cost-revenue ratio using the average revenues.

EPA estimates there are an average of 204,956 small entities that would be affected by this rule. Of these, there are an estimated 179,818 small businesses with an average impact ranging from 0.007% to 0.221%, 18,088 small non-profits with an average impact ranging from 0.006% to 0.097%, and 7,050 small governments with an average impact ranging from 0.0004% to 0.002%.

Table ES- 11. Aggregate Small Entity Impacts

	Number of Small Entities Affected	Average Revenue	Annualized Fee	Cost Impact	
				Minimum	Maximum
Small Governments	7,050	\$16,997,060	\$62 - \$284	0.000%	0.002%
Non-Profit Organizations	18,088	\$292,629 - \$1,015,686	\$62 - \$284	0.006%	0.097%
Small For-Profit Businesses	179,818	\$93,196 - \$2,017,329	\$62 - \$526	0.007%	0.221%
Total	204,956	\$93,196 - \$16,997,060	\$62 - \$526	0.000%	0.221%

1. Introduction

In response to continuing concerns about lead poisoning among American children, Congress passed the Housing and Community Development Act of 1992, which included Title X: The Residential Lead-Based Paint Hazard Reduction Act of 1992. Title X amended several existing housing, worker safety, and environmental statutes and amended the Toxic Substances Control Act (TSCA) by adding Subchapter IV: Lead Exposure Reduction.

This report presents an analysis of the accreditation and certification fees to cover the costs of administering and enforcing lead-based paint activities and renovation activities under two rules: (i) the Lead-based Paint Activities rule (“Abatement rule”), and (ii) the Lead Renovation, Repair, and Painting Program rule (“LRRP rule”). The following chapter provides additional background on the rules, the purpose of the fees analysis, and an overview of the report.

1.1. Purpose of the Lead Fees Rules

1.1.1. Abatement Rule

TSCA §402(a) (15 U.S.C. 2682(a)) requires the Administrator of the U. S. Environmental Protection Agency (EPA) to promulgate regulations governing lead-based paint activities, namely lead inspection, risk assessment, and abatement. Section 402(a) requires EPA to promulgate regulations to ensure that individuals engaged in such activities are properly trained; that training programs are accredited; and that firms engaged in such activities are certified. Section 402(a) also requires EPA to establish standards for performing lead-based paint activities that are reliable, effective, and safe. Under Section 404 (15 U.S.C. 2684), EPA may authorize a State or an Indian Tribe to administer and enforce its own lead-based paint program, which may be more stringent but must be at least “as protective as” EPA’s program under Section 402.

On August 29, 1996, EPA published requirements for lead-based paint activities in target housing and child-occupied facilities (61 *Federal Register* 45778) at 40 CFR Part 745, Subparts L & O, under Sections 402 and 404 of TSCA. The objective of this regulation is to ensure that individuals conducting lead-based paint activities in target housing and child-occupied facilities are properly trained and certified, that training programs providing instruction in such activities are accredited and that these activities are conducted according to reliable, effective, and safe work practice standards.

Under Subpart L of the rule, EPA established accreditation requirements for training programs at 40 CFR 745.225 and certification requirements for firms and individuals at 40 CFR 745.226. These regulations apply to training providers, firms, and individuals performing lead-based paint activities in target housing or child-occupied facilities. They define requirements in the following five lead-based paint disciplines:

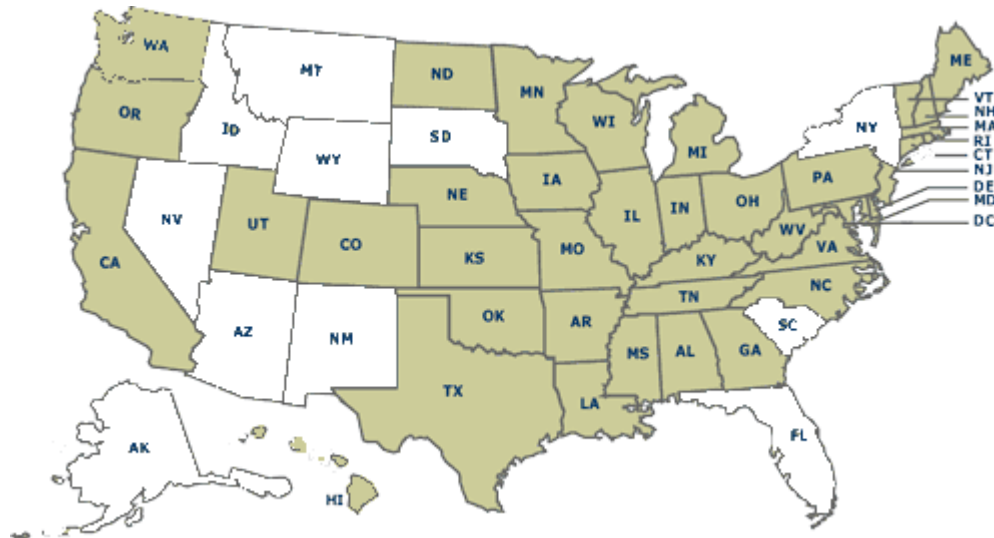
- Inspector;
- Risk assessor;
- Supervisor;
- Worker; and
- Project designer.

The Agency established specific work practice standards for each of these disciplines at 40 CFR 745.227.

Under Subpart Q, EPA established the requirements that State or Tribal programs must meet for authorization by the Administrator and the procedures EPA will follow in approving, revising, and withdrawing approval of State or Tribal programs.

As seen in Figure 1-1, 39 states are authorized to operate their own programs, as well as the District of Columbia, Puerto Rico, and three Tribal Areas (Cherokee Nation, Lower Sioux, Upper Sioux). The EPA-administered universe includes Alaska, Arizona, Florida, Idaho, Montana, Nevada, New Mexico, New York, South Carolina, South Dakota and Wyoming. EPA will administer and enforce the 40 CFR Part 745, Subpart L regulations only in States and Tribal areas that do not apply for and receive EPA authorization.

Figure 1-1. Map of EPA-Administered Section 402 Programs (white) and Authorized State Programs (shaded)¹⁰.



TSCA §402(a)(3) states that EPA (or an authorized State) shall establish fees “at such a level as is necessary to cover the costs of administering and enforcing the standards and regulations under this section which are applicable to such programs and contractors.” The final rule establishing a fee schedule for training programs seeking accreditation and individuals and firms seeking certification was promulgated on June 9, 1999.¹¹

1.1.2.LRRP Rule

TSCA §402(c) requires EPA to revise the Abatement rule to apply it to renovation and remodeling activities that create lead-based paint hazards. The LRRP rule was proposed in 2006, with a supplemental proposal expanding the scope of the LRRP rule to include COFs in 2007, and

¹⁰ EPA Lead in Paint, Dust and Soil – Lead Professionals Website. <<http://www.epa.gov/lead/pubs/traincert.htm>> Viewed on May 5, 2008.

¹¹ See U.S EPA, Lead in Paint, Dust and Soil, Training and Certification Program for Lead-Based Paint Activities in Target Housing and Child Occupied Facilities - Section 402/404, 64 Fed. Reg. 31,092 (June 9, 1999) (<http://www.epa.gov/lead/pubs/leadcert.htm>, viewed on May 9, 2008).

finalized on March 31, 2008. Similar to the Abatement rule, the LRRP rule applies to target housing and child occupied facilities (COFs).

Under the LRRP rule, beginning in April 2010, entities performing renovation activities that disturb painted surfaces in target housing and COFs built before 1978 must be certified and must follow specific work practices to minimize exposure to lead-based paint hazards.

This includes construction contractors (including sole practitioners) as well as landlords and other building owners (such as school districts) that may perform renovation activities that disturb painted surfaces using their own staff. It does not, however, cover work performed by homeowners on their own homes. The certified entity must ensure that all persons performing RRP activities on behalf of the entity in buildings covered by the rule are either renovators who have received training from an EPA-accredited training provider or workers who have received on-the-job training from a certified renovator. In addition, the rule requires the use of these certain work practices to minimize exposure to lead-based paint hazards.

1.2. Purpose and Overview

This report supports EPA's accreditation and certification fee rulemaking for the Abatement and LRRP rule by: (1) estimating the total costs to administer and enforce the TSCA §402 certification programs in EPA Regions and Headquarters; (2) estimating the fees required to cover these costs; and (3) analyzing the potential impact of these fees on small entities. The report is organized as follows:

- **Chapter 2** describes in detail the methods used to estimate the accreditation and certification fees for the Abatement rule. This includes a projection of the universe of applicants, estimate of the program costs for both the regions and EPA Headquarters, calculation of fee options, and description of key limitations. Two appendices are presented supporting the estimate of program costs.
- **Chapter 3** describes in detail the methods used to estimate the accreditation and certification fees for the LRRP rule. This includes a projection of the universe of applicants, estimate of the program costs for both the regions and EPA Headquarters, calculation of fee options, and description of key limitations.
- **Chapter 4** presents findings of distributional analyses relevant to rule-making requirements for small business impacts.
- **Chapter 5** presents findings of sensitivity analyses conducted on assumptions and limitations in the fee estimates for the Abatement Rule and LRRP rule.

2. Abatement Fees

This chapter describes the methodology EPA used to estimate the fees to cover the costs of administering and enforcing lead-based paint activities under the Abatement rule. The fees for the Abatement rule (when the rule was first promulgated in 1999) were based upon EPA estimates. At the time, assumptions were made on the number of applicants and time to process the applications, conduct administrative activities, and enforce the rule. This analysis updates the 1999 framework with information from EPA Headquarters and the regions on the actual number of applications that have been processed and the processing time. The methodology, described below, follows the following key steps:

- Project the annual number of applications;
- Estimate the total annual program costs, including regional and headquarters costs;
- Calculate the fee levels to meet the annual program costs.

2.1. Annual Applications

EPA will incur costs for administering and enforcing the program only in States and Tribal areas that do not seek or are not granted authorization to operate their own programs. The Federal Lead Paint Program (FLPP) database tracks the number of applications received by EPA and sent to the Regions for processing. Specifically, EPA Headquarters receives all applications for EPA-administered states and areas, uploads the information into the FLPP database, and then electronically sends the application to the lead region for review and approval. EPA assumes the difference in level of effort between regions due to the number of state authorized programs within each region is reflected in the number of applications processed in each region.

Averaging the number of applications between fiscal year (FY) 2003 to 2006 provides a reasonable estimate of the future volume of applications under the Abatement rule. This assumes that future trends will be consistent with past trends with respect to the number and types of applications that EPA will continue to receive. In analyzing the FLPP data EPA considered the following:

- The number of applications reflect only those sent to “lead regions.” In cases where an applicant applies to multiple jurisdictions and regions, headquarters will designate a “lead region”. The FLPP database does not specify the additional regions for a given application, or the number of applications processed by each region for which the region was not a lead. Therefore, this analysis assumes the proportion of lead to non-lead applications for each region is similar (*see Appendix B for distribution of the number of regions by application type*).
- Applications received by headquarters but not forwarded to the regions had four outcomes: returned, withdrawn, approved or disapproved. However, EPA estimates that on average these applications totaled approximately 550 annually. This analysis included the number of applications sent to regions because only those applications were processed, administered and enforced.
- In estimating regional processing cost, this analysis did not include applications designated as “Amendments.” These entries were assumed to be informational only (e.g. an update in the FLPP database), and not a significant cost to EPA Regions for time or effort.

Table 2-1 presents the average number of applications sent to each lead region, based on information from the FLPP database. Overall, an annual total of 2,772 applications were processed between FY2003 to 2006. Region 2 processed 72 percent of these applications.

Table 2-1. Table of Average Annual Number of Applications Sent to Each Lead Region from FLPP Database for FY 2003-FY 2006

Average Annual Number of Applications Sent to Lead Region – FLPP Database ¹											
Type of Application	Lead Region ²										Total
	1	2	3	4	5	6	7	8	9	10	
Training Program Accreditation	0	9	0	4	0	1	2	1	1	0	18
Refresher Training Program Accreditation	0	8	0	4	0	1	2	1	1	2	19
Training Program RE-accreditation	0	13	0	19	0	5	10	3	14	3	67
Refresher Training Program Re-accreditation	0	7	0	18	0	5	10	3	14	2	59
Firm Certification	0	218	0	19	1	3	0	6	19	10	276
Firm Re-Certification	1	110	0	25	1	6	3	7	14	12	179
Individual Certification	1	1225	0	83	3	19	1	44	125	33	1,534
Individual RE-certification	0	401	0	84	1	19	0	17	63	41	626
Annual Average FY2003-FY2006 (without Amendments)	2	1,989	-	257	5	58	28	80	250	103	2,772
¹ Applications were separated by disciplines within each Type of Application and then averaged for each lead region across FY 2003-FY 2006. Averages were then summed by each Type of Application for the average for each Lead Region. ² The FLPP Database included a small number of applications processed in Regions where all States were authorized. Additional detail was not provided in the FLPP Database for these applications.											

2.2. Program Costs

This section describes the methodology used to estimate the costs for administering and enforcing the Abatement rule for training providers, firms, and individuals in States without authorized programs.

2.2.1. Regional Processing Cost

EPA regions have a great deal of responsibility for implementing the Lead-based Paint Activities program. They conduct a range of administrative activities, which will vary for different types of accreditation and certification. The major types of EPA regional activities are 1) processing applications, 2) administrative activities, and 3) enforcement activities, which are described in detail below.

Overall, the time to process applications reflects the time a region requires to review and either approve or disapprove an application. Specific activities may include, for example:

- Examining applications for completeness and verifying compliance with all applicable requirements for accreditation or certification (e.g., course materials and curriculum or firm experience and educational background).
- Tracking accredited training programs and certified firms and other related support activities.
- An on-site review of the training programs being considered for accreditation.
- Clerical activities such as receiving, opening, logging, filing, storing, and updating applications and other correspondence

Once an application is approved, there are additional processing activities for producing and issuing certificates and worker identification cards.

EPA regions have not tracked these activities in the past. Accordingly, EPA estimated the average hours spent processing each type of application using a Time-Motion Study undertaken for this analysis. Regions 2, 4, and 9 participated in the study; these Regions process the highest number of applications annually (see Table 2-1). The study was conducted over a 30 day period between October and November 2007 to track the amount of time needed to process applications.

For each application processed, the regions recorded the application identification number, whether the region was a lead region, application type (including discipline), and the date approved or disapproved. Under each activity, EPA staff recorded the number of minutes spent, as well as the level of the staff performing the task (i.e., Clerical Senior Environmental Employee (SEE), Clerical EPA, Technical SEE, Technical EPA or Managerial EPA).

As presented in Table 2-2, Region 2 tracked the largest number of applications, totaling 343 applications. This analysis only included the processing time for applications which were initiated and completed during the 30-day time period to ensure consistency in processing time. Appendix C contains a summary of the Time-Motion study data.

Table 2-2. Number of Applications Completely Processed for Regions 2, 4, and 9, during the 2007 Time-Motion Study

Application Type	Certification/ Re-certification	Number of Applications (Completed)		
		Region 2	Region 4	Region 9
Firm	Initial	27		3
Firm	Recertification	22		4
Individual	Initial	131	6	8
Individual	Recertification	156	3	11
Individual	Disapproval	5		3
Individual	Reciprocity	1		2
Training Provider	Accreditation			3
Training Provider	Reaccreditation	1		
TOTAL		343	9	34

Based on the study results, EPA calculated the average processing time for each application type by region (see Table 2-3). No significant difference was found for the processing time among the five disciplines. Based upon this finding, EPA assumes that the application processing time does not vary by discipline for both training providers and individuals.

As presented in Table 2-3, the processing time on average for each application was significantly lower for Region 2. This is primarily due to systems Region 2 has in place to process a high volume of applications more efficiently. Accordingly, the weighted average processing time between Regions 4 and 9 was used to estimate the average processing time for all the regions,¹² except Region 2 (i.e., “National

¹² Region 3 is not included in this analysis because all states have authorized programs and there were no applications processed during the analysis period from FY 2003 through FY 2006, as reported in the FLPP Database. Regions 1, 5 and 7 have only state-authorized programs as well, but processed applications (e.g. from Tribal Areas) during the time period as reported in the FLPP database. Therefore, Regions 1, 5, and 7 are included in this analysis because they contribute to the total number of applications processed.

Estimate”). Furthermore, given limited data from Region 4 for firms and training providers, the processing time reported from Region 9 was used as the national estimate.

Table 2-3. Summary of Average Processing Time (Level of Effort) for Regions 2, 4, and 9, including a National Estimate.

Average Processing Time (Hours/Application)					
Application Type	Certification/ Re-certification	Region 2	Region 4	Region 9	National Estimate (Weighted Average Region 4 & 9)
Firm	Initial	0.4	--	1.5	1.5
Firm	Recertification	0.4	--	1.3	1.3
Individual	Initial	0.5	1.8	1.8	1.8
Individual	Recertification	0.6	1.3	1.4	1.4
Individual	Disapproval	0.9	--	1.8	1.8
Training Provider	Accreditation	8.5	--	26.1	26.1
Training Provider	Re-Accreditation	1.5	--	4.5	4.5

Based on the small number of training provider accreditations (Region 9 completed 3) and Re-accreditations (Region 2 completed 1) completed during the Time-Motion Study period, EPA calculated the processing time for a Region 2 training provider accreditation and the processing time for a Region 9 (“National Average”) training provider re-accreditation. EPA estimated these values by applying a ratio of average individual and firm application processing time between Regions 2 and 9 to the processing times provided in the Time-Motion Study.

Based on EPA wage rate information for 2007 (see Appendix D), EPA estimated the average processing cost per application for each region. As presented in Table 2-4, the cost per application was significantly lower for Region 2, correlating to the significant decrease in processing time. The cost for disapproval of an individual application was somewhat higher for Region 2, but not significantly different than an initial certification for the national estimate. For this reason, EPA assumed that when estimating the cost per application, the individual applications disapproved at the regional level did not require a separate calculation.

Table 2-4. Summary of Average Cost per Application (Level of Effort) for Regions 2, 4, and 9, including a National Estimate.

Average Cost per Application (\$/Application)					
Application Type	Certification/ Re-certification	Region 2	Region 4	Region 9	National Estimate (Weighted Average Region 4 & 9)
Firm	Initial	\$9	--	\$27	\$27
Firm	Recertification	\$9	--	\$25	\$25
Individual	Initial	\$11	\$39	\$33	\$36
Individual	Recertification	\$12	\$29	\$26	\$27
Individual	Disapproval	\$18	--	\$32	\$32
Training Provider	Accreditation	\$159	--	\$492	\$492
Training Provider	Re-Accreditation	\$29	--	\$94	\$94

As presented in Table 2-5, to estimate the total average annual processing cost, EPA multiplied a weighted average of the unit cost per application by the average number of applications processed during

FY 2003 through FY 2006. Because the Time-Motion study did not provide data regarding the difference in relative burden between the initial and refresher course, for purposes of this analysis, an estimate of 42 percent was used, based on the 1999 Abatement fees analysis.

Table 2-5. Summary of Annual Average Regional Processing Cost.

Program	Average Number of Applications (FY2003-FY2006) ¹¹			Unit Cost Region 2	Unit Cost (All Other Regions)	Relative Burden ¹⁴	Weighted Average Cost Per Application			Total Average Annual Processing Cost ¹⁸
	All Regions ¹²	Region 2 Only	All Other Regions ¹³				Region 2 ¹⁵	All Other Regions ¹⁶	ALL REGIONS ¹⁷	
Training Program Accreditation										
Initial - All Disciplines	18	9	9	\$159	\$492	100%	\$159	\$492	\$330	\$5,778
Refresher - All Disciplines	18	8	11	\$159	\$492	42%	\$67	\$207	\$148	\$2,670
Training Program Reaccreditation										
Initial - All Disciplines	66	13	53	\$29	\$94	100%	\$29	\$94	\$81	\$5,390
Refresher - All Disciplines	59	7	52	\$29	\$94	42%	\$12	\$40	\$36	\$2,129
Firm Certification										
Initial Certification	276	218	58	\$9	\$27	100%	\$9	\$27	\$13	\$3,530
Firm Re-Certification	178	110	68	\$9	\$25	100%	\$9	\$25	\$15	\$2,691
Individual Certification										
Initial Certification - All Disciplines	1532	1225	307	\$11	\$36	100%	\$11	\$36	\$16	\$24,078
Individual RE-certification - All Disciplines	626	401	225	\$12	\$27	100%	\$12	\$27	\$17	\$10,809
Amendments	76	15	61							
TOTAL (not including Amendments)	2,772	1,989	783							\$57,074

¹¹ Based on average number of applications sent to lead regions between FY2003 and FY2006, excluding amendments.

¹² Figures may not sum due to rounding.

¹³ Region 3 is not included in this analysis because all states have authorized programs and there were no applications processed in that region during the FLPP Database period from FY 2003 through FY 2006.

¹⁴ Estimated burden for firm and individual certifications are based upon the individual initial processing time in the 2007 Lead Fees Time-Motion Study (see Time-Motion Study). The time motion study found that there is no difference in burden between disciplines for individual applications. Due to the limited number of Training Provider Accreditations and Reaccreditations processed in the Time Motion Study, the burden estimates are assumed to demonstrate no difference in burden between disciplines, as demonstrated for individual applications. The difference in relative burden for the refresher courses assumes the level of effort estimated for EPA regions in 1999 is consistent with current levels.

¹⁵ Based on cost per application for Region 2 in FY2007 Lead Fees Time-Motion Study.

¹⁶ Based on average cost per application for Region 4 and 9 in FY2007 Lead Fees Time-Motion Study.

¹⁷ Weighted average cost per application based on average number of applications from FY2003 to FY2006.

¹⁸ Estimated by multiplying cost per application by number of applications for Region 2 and All Other regions.

Given the significant difference in unit cost between Region 2 and the national estimate, the total average annual processing cost was derived as by summing the total for Region 2 and all other regions, resulting in a total average annual regional processing cost of \$57,074.

2.2.2. Regional Administrative and Enforcement Cost

In addition to processing costs, regions incur costs for other administrative activities and enforcement. Administrative activities include, for example, answering phone inquires from the public regarding the Section 402 program, following up on the status of applications, providing information to other regions, coordinating with headquarters, and performing other customer service activities. Enforcement activities include, for example, conducting audits of training providers and firms.

Regions 2, 4, and 9 provided an estimate of the number of hours spent performing these activities by wage type (see Appendix E). These estimates, obtained through questionnaires and telephone interviews conducted in the fall of 2007, were largely based on professional judgment and the experience of the Regional staff that conduct and oversee these activities. As presented in Table 2-6, the total cost for each activity was estimated by multiplying the level of effort for each employee type by the EPA wage rate data in 2007 (see Appendix D).

Table 2-6. Summary of Administrative and Enforcement Costs for Regions 2, 4, and 9

Region	Activity	Employee Type	FTEs	Cost	Total Cost by Region
2	Administrative	Technical SEE ¹¹	1.75	\$67,122	\$67,122
4		Technical EPA	0.26	\$19,932	\$19,932
9		Technical SEE	0.38	\$14,752	\$18,702
9		Managerial EPA	0.02	\$2,104	
9		Technical EPA	0.02	\$1,846	
2	Enforcement	Technical EPA	1	\$76,777	\$76,777
4		Technical SEE	0.02	\$885	\$885
9		Technical SEE	0.40	\$15,268	\$18,111
9		Managerial EPA	0.02	\$2,104	
9		Technical EPA	0.01	\$738	

¹¹ Employee type for was not specified by Region 2, but assumed to be Technical SEE.

To estimate the average annual regional administrative cost, EPA summed the average annual administrative cost from Regions 2, 4, and 9, and added an estimate for the other Regions (1, 5, 6, 7, 8, and 10). Consistent with the approach used for estimating the regional processing cost, EPA assumed the cost per application for the other regions was the average between Regions 4 and 9.¹³ Then EPA multiplied the estimated cost per application for the other regions by the number of applications processed in FY 2006 to estimate the average annual administrative cost for the other regions. As presented in Table 2-7, this resulted in an estimated annual total regional administrative cost of \$151,532.

¹³ Regions 2 and 4 indicated that administrative costs are not necessarily proportional to the number of applications

Table 2-7. Average Annual Regional Administrative Cost.

	Region 2 ¹¹	Region 4 ¹¹	Region 9 ¹¹	Other Regions (1,5,6,7,8 & 10) ¹³
Average Annual Administrative Cost	\$67,122	\$19,932	\$18,702	\$45,776
TOTAL	\$151,532			
Number of Applications FY 2006	1,972	210	159	431
Cost per application ¹²		\$95	\$118	\$106
¹¹ Based on allocation of resources to administrative activities in FY2006. ¹² Estimated cost based on hours per application multiplied by administrative wage per hour. ¹³ Although Regions 2 and 4 indicated that administrative costs are not necessarily proportional to the number of applications, we use the average administrative cost per application for Region 4 and 9 to scale the administrative costs for the other regions (1, 5, 6, 7, 8 & 10). ¹⁴ The total number of applications for FY 2006 sent to the regions is 2,614. EPA used FY 2006 data because the regions provided their FTE estimates based upon FY 2006.				

To estimate the average annual regional enforcement cost, EPA summed the average annual enforcement cost from Regions 2, 4, and 9, and added an estimate for the other regions (1, 5, 6, 7, 8, and 10). EPA calculated an average enforcement cost by averaging the regional enforcement cost for Regions 4 and 9. Consistent with the approach used for regional processing and administrative cost, EPA assumed the cost per application for the other regions was the average between Regions 4 and 9. As presented in Table 2-8, this resulted in an estimated total regional enforcement cost of \$152,761. However, discussions with regions suggested the enforcement costs are largely depended on available funding versus the number of applications received.

Table 2-8. Estimated Annual Regional Enforcement Cost.

	Region 2	Region 4	Region 9	Other Regions (1,5,6,7,8 & 10) ¹¹
Total Cost	\$76,777	\$885	\$18,111	\$56,988
TOTAL COST ¹²	\$152,761	Assumes other Regions (1, 5, 6, 7, 8, &10) each have enforcement costs equal to average of Region 4 & 9.		
¹¹ Estimated by taking an average of Region 4 and Region 9 enforcement costs (\$9,498) and multiplying this figure by the number of additional Regions (6). ¹² Regions 2, 4, and 9 indicated that resources spent on enforcement activities are based on the available funding after processing and administrative activities are complete.				

2.2.3. Headquarters Administrative and Enforcement Cost

EPA Headquarters activities under the Abatement rule fall under administrative and enforcement activities. The administrative activities include:

- Coordination with the Regions. Involves preparing or reviewing reports related to the Lead-based Paint Activities program, addressing inquiries, coordinating efforts, or assuring proper implementation of the program.

- Maintenance of the central database and registry. Requires EPA headquarters staff to work with the contractors to enter information about the application (e.g., date, type, lead Region, etc.) from the Lead-based Paint Activities program into the Federal Lead Paint Program (FLPP) Database.
- Administration of certification examinations. Individuals seeking certification as an inspector, risk assessor, or supervisor must pass a certification exam in the discipline. EPA's activities related to administration of the exam include filing and storing certification exam materials, administering and grading the exams and tracking and transmitting scores to applicants and other databases. These activities are primarily conducted by the contractor.

Table 2-9 presents a summary of the EPA Headquarters costs, which total \$849,214 per year. For the headquarters support and enforcement activities, the costs are estimated by multiplying the amount of FTEs required to conduct these tasks by 2007 EPA wage rates. The FTE estimates are based on annual historical averages since the Abatement rule was enacted in 1999. Similarly, the contractor support costs are based on the average annual contract costs from 2002 (the year the FLPP database was implemented) to 2007.

Table 2-9. Summary of Headquarters Activities and Annual Costs

Annual Cost Activities	Labor type	Rate per FTE (\$/FTE)	FTE	Annual Cost (\$)
Administrative: Headquarters Support ¹	Technical (GS 11)	\$76,777	1.00	\$76,777
Enforcement ²	Technical (GS 12)	\$95,081	0.10	\$9,508
Administrative: Contractor Support ³				\$762,929
Total EPA Headquarters Cost				\$849,214
¹ Based on estimate of number of HQ FTE that work on Abatement rule annually. ² Based on discussions with OECA staff on enforcement activities related to the Abatement rule. ³ Based on actual contractor support expenditures to operate and maintain FLPP database from July 2002 to August 2007.				

2.2.4. Summary of Total Annual Cost

Table 2-10 presents a summary of the total annual EPA regional and headquarters costs to administer and enforce the Abatement rule. EPA estimates a total cost of approximately \$1,210,580, of which 69 percent accounts for administrative Headquarter costs.

In addition, it is important to account for the revenue EPA generates from the Certification Exam fee. The annual revenue (\$54,670) is estimated by multiplying the Certification Exam Fee (\$70), by the average number of individual inspectors, risk assessors, and supervisors that took the exam from FY2003 to FY2006 (781 applicants), based on the FLPP database. After accounting for this revenue, EPA estimates net total costs of \$1,155,910 for the Abatement rule. As noted previously, the costs reflect the EPA regions that are administering the accreditation and certification programs.

Table 2-10. Summary of Annual Abatement Rule Costs

Activity	Annual Cost	Percentage
Regional		
Regional Processing Costs	\$57,074	5%
Regional Administrative Costs	\$151,532	13%
Regional Enforcement Costs (Average)	\$152,761	13%
Headquarters		
Headquarters Administrative Costs	\$839,706	69%
Headquarters Enforcement Costs	\$9,508	1%
TOTAL		
Total EPA Costs	\$1,210,580	100%
Revenues from Certification Exam Fee	\$(54,670)	---
TOTAL NET COST TO EPA	\$1,155,910	---

2.3. Abatement Fee Schedule

The current schedule of fees for the Abatement rule is based on the 1999 Economic Analysis of the Final TSCA Section 402(a)(3) Lead-Based Paint Accreditation and Certification Fee Rule (see Table 2-11). To structure the fees, EPA considered two key questions:

- (3) *How should EPA assign costs that cannot be attributed to specific applications across fee payers?* EPA incurs both fixed and variable costs to administer and enforce the Abatement rule. The variable costs include the regional processing costs, which are more directly tied to specific applicants. On the other hand, the fixed costs include the regional and headquarters administrative and enforcement costs, which apply across all the applications. In the 1999 analysis EPA estimated a fixed cost per application by dividing the total regional and headquarters administrative and enforcement costs by the total number of applications processed.¹⁴ Under this approach the burden of the fixed costs are more evenly distributed over all fee payers.

- (4) *How many different categories should be used for training providers and individuals?* EPA's current fee structure assessed a different fee for each discipline under the training providers and individuals (i.e., inspector, risk assessor, supervisor, worker and project designer). This was primarily based on an assumption that the processing cost would differ for various disciplines. For example, it was assumed that the time to process a risk assessor application would take approximately twice as much time as a project designer. Furthermore, the 1999 analysis considered public comments on the impact of the initial fee estimates to certain disciplines. Specifically, in response to the public comments, EPA reduced the worker fees by increasing the firm certification fee.¹⁵

¹⁴ The alternate approach analyzed was the *fixed ratio method*. In this approach, the Regional administrative costs for each type of accreditation or certification (e.g., supervisor training program accreditation, firm certification) would be multiplied by a fixed ratio to determine the portion of other costs each applicant would pay.

¹⁵ See Economic Analysis of the Final TSCA Section 402(a)(3) Lead-Based Paint Accreditation and Certification Fee Rule, February, 26, 1999, page ES-7.

In developing a revised fee structure, EPA proposes simplifying the number of application types by assessing the same fee for all training providers and for all individuals, regardless of the type of discipline. As described in Section 2.2.1, analysis of the Time-Motion Study data and discussions with Regions indicated that there is not a significant burden differential in processing applications from different disciplines.

EPA considered three alternative approaches to developing the revised fee schedule. Fee Option 1 is based on individual cost estimates for training providers, firms and individuals. Fee Option 2, EPA's preferred option, adjusts the Option 1 fees by: (1) creating a worker fee that is \$100 less than the other individual fees, and (2) reducing fees for tribe's firm and individual certifications. Fee Option 3 is based on the total change in costs and adjusts all the current fees in proportion to change in the total.

Fee Option 1

Currently, EPA generates \$1,222,495 in average annual revenues under the Abatement rule. However, EPA estimates that the annual costs under the Abatement rule totals \$1,155,910 (see Table 2-10). As discussed in Section 2.2.1, the variable costs reflect the regional processing costs for each application type. On the other hand, the fixed costs include the regional and headquarters administrative and enforcement costs, which apply across all the applications. To estimate the fixed costs, EPA divided the total regional enforcement, administrative and headquarters costs by the total estimated number of applicants over the five year projection period. This results in a fixed cost of \$396 per application. Accordingly, as presented in Table 2-11, EPA adds the fixed cost to the variable costs to estimate the total cost by applicant type.

Table 2-11: Option 1 Fee Structure

Program	Average Processing Cost per Applicant ¹ [A]	Fixed Cost ² [B]	Total Cost/Fee [C]=[A]+[B]
Training Program Accreditation			
Initial	\$330	\$396	\$727
Refresher	\$148	\$396	\$545
Training Program Reccreditation			
Initial	\$81	\$396	\$478
Refresher	\$36	\$396	\$433
Firm Certification			
Initial	\$13	\$396	\$409
Recertification	\$15	\$396	\$412
Individual			
Initial	\$16	\$396	\$412
Recertification	\$17	\$396	\$414
¹ Average processing cost based on weighted average of processing costs for Regions 2, 4, & 9.			
² Fixed amount and ratio method based on total estimated processing, administrative, and enforcement costs over three years. See "Total Cost" worksheet for additional detail.			

Fee Option 2 (Preferred Option)

The second option reduces the fee for the individual worker certification and recertification. As discussed above, EPA reduced the worker fees in light of public comments received during the 1999 analysis.¹⁶ In addition, Option 2 includes reduced fees for tribal firm and individual certifications. Using the fees estimated under Option 1, Option 2 reduces the fee for the workers by \$100 and increases the fee for training providers and firms in order to generate revenues that meet the total costs under the Abatement rule (\$1,155,910). Option 2 also reduces the fees charged to tribes to \$20 per firm applicant and \$10 per individual applicant. Firms and individuals excluding workers are assessed an additional \$2 in order to offset the lost revenues from offering the discounted fee to tribes. Table 2-12 presents a summary of the fee estimates under this option.

Table 2-12: Option 2 (Preferred Option) Fee Structure

Program	Estimated Fee (Option 1) [A]	Revised Fee (Option 2: Reduced for Workers and Tribes) [B]	Difference [C]=[B]-[A]
Training Program Accreditation			
Initial	\$727	\$870	\$143
Refresher	\$545	\$688	\$143
Training Program Recreditation			
Initial	\$478	\$621	\$143
Refresher	\$433	\$576	\$143
Firm Certification			
Initial	\$409	\$555	\$145
Recertification	\$412	\$557	\$145
Individual			
Individual Certification (Excluding workers)	\$412	\$414	\$2
Individual Certification - Workers Only	\$412	\$312	(\$100)
Individual Recertification (Excluding workers)	\$414	\$416	\$2
Individual Recertification - Workers Only	\$414	\$314	(\$100)
Tribal Firms and Individuals			
Firm Initial and Recertification	\$409 - \$412	\$20	(\$389) - (\$392)
Individual Initial and Recertification	\$412 - \$414	\$10	(\$402) - (\$404)

Fee Option 3

Under a third option in structuring the fees, EPA followed the following key steps:

- (1) Calculate a weighted average fee for training providers, firms, and individuals based on the current fee schedule and annual average applications (see Table 2-13). In light of public comments received during the 1999 analysis, estimate a separate fee for individual worker certifications and re-certifications. Accordingly, the weighted average for individual certifications and re-certifications does not include the worker fee.

¹⁶ See Economic Analysis of the Final TSCA Section 402(a)(3) Lead-Based Paint Accreditation and Certification Fee Rule, February, 26, 1999, page ES-7.

- (2) Adjust the weighted fee by the ratio of the total net annual Abatement rule cost estimate (\$1,155,910) to the total current annual revenues (\$1,222,495) or 94.6 percent (see Table 2-14).

This methodology keeps the relative proportion of fees to cover the costs of the Abatement rule between the applicants consistent with the current schedule of fees.

Table 2-13. Current Schedule of Fees and Revenue

Program	All Regions ¹	Current Schedule of Fees	Current Revenue
Training Program Accreditation	18		
Inspector	3	\$2,500	\$8,125
Risk Assessor	3	\$1,760	\$5,270
Supervisor	4	\$3,250	\$13,813
Worker	7	\$1,760	\$11,880
Project Designer	0	\$1,010	\$ -
Refresher Training Program Accreditation	18		
Inspector	4	\$1,010	\$3,788
Risk Assessor	4	\$1,010	\$3,788
Supervisor	5	\$1,010	\$4,545
Worker	6	\$1,010	\$5,808
Project Designer	0	\$640	\$160
Training Program RE-accreditation	66		
Inspector	12	\$1,600	\$19,200
Risk Assessor	12	\$1,150	\$13,513
Supervisor	17	\$2,050	\$34,850
Worker	20	\$1,150	\$23,000
Project Designer	6	\$710	\$3,905
Refresher Training Program RE-accreditation	59		
Inspector	11	\$710	\$7,455
Risk Assessor	10	\$710	\$7,278
Supervisor	15	\$710	\$10,828
Worker	18	\$710	\$12,425
Project Designer	5	\$490	\$2,450
Firm Certification	454		
Initial	276	\$540	\$149,040
Firm Certification Extension	178	\$430	\$76,433
Individual Certification	1532		
Inspector	253	\$400	\$101,100
Risk Assessor	265	\$520	\$137,540
Supervisor	264	\$470	\$123,963
Worker	738	\$280	\$206,500
Project Designer	13	\$470	\$6,228
Individual Recertification	626		
Inspector	47	\$350	\$16,450
Risk Assessor	281	\$420	\$118,020
Supervisor	147	\$390	\$57,428
Worker	144	\$240	\$34,440
Project Designer	7	\$390	\$2,828
TOTAL (not including Amendments) ²	2,772		\$1,222,495
¹ Based on average number of applications sent to lead Regions between FY2003 and FY2006, excluding amendments. ² Figures may not sum due to rounding.			

Table 2-14. Option 3 Fee Structure

Program	Current Fee Schedule ¹	Option 3 Revised Fee Estimate ²
Training Providers		
Initial Accreditation	\$2,259	\$2,136
Initial Refresher Course	\$1,005	\$950
Reaccreditation	\$1,426	\$1,348
Reaccreditation Refresher Course	\$691	\$654
Firms		
Firm Certification	\$540	\$511
Firm Recertification	\$430	\$407
Individuals		
Initial Certification (Excluding workers)	\$464	\$439
Initial Certification - Workers Only	\$280	\$265
Recertification (Excluding workers)	\$404	\$382
Recertification - Workers Only	\$240	\$227
¹ Reflects weighted average based on current fees and annual number of applications between FY2003 to FY2006. ² Revised Fee estimated by multiplying ratio of the total annual Abatement rule costs (\$1,155,910) to the total current annual revenues (\$1,222,495) or 94.6 percent.		

2.4. Limitations

This section summarizes some of the key limitations concerning the analysis used to estimate the fee levels under the Abatement rule. As discussed above, EPA relied on several key data sources, including the FLPP database, Time-Motion study, and other data/information from EPA regional and headquarters personnel. Below we highlight the key data limitations and assumptions:

- Applicants may apply for multiple jurisdictions and regions. However, one “lead region”, where the application is initially processed, is designated by Headquarters in the FLPP database. The FLPP data used for this analysis only counted the number of applications sent to a lead region. However, Regions also process applications where they are not considered the lead region. Not accounting for the non-lead applications may underestimate the total processing time and costs for the regions.
- This analysis did not consider applications designated as “Amendments” in estimating the total Regional processing costs. Accordingly, this may underestimate the total processing time and cost for the regions.
- When estimating the fixed costs associated with headquarters administrative and enforcement activities, this analysis only considered those applications that were sent to the regions (or 2,772 applications). As noted previously, EPA Headquarters receives additional applications which may be disapproved, returned, or withdrawn. However, unless withdraw the applicants are required to pay a fee to EPA. Accordingly, accounting for these applications may reduce the fixed headquarters costs slightly as these costs may be spread over a larger universe of applicants.

- The Time-Motion study was completed by Regions 2, 4, and 9 over a one-month period. Overall 386 applications were processed, of which 342 were processed by Region 2. It is important to note that the study may not reflect a representative sample of applications annually processed by all the regions. Furthermore, limited data were available on training provider accreditations and re-accreditations during the study period. Finally, the Time-Motion study did not account for other activities, such as administrative and enforcement activities.
- Given the small number of training provider accreditations and re-accreditations completed during the study period, and the small number of accreditations and re-accreditations processed nationally each year, there is some uncertainty in the processing times used to estimate the associated cost.
- The analysis assumes the estimated per application time and cost to process and administer applications in Regions 4 and 9 is consistent with all other regions (1, 5, 6, 7, 8, and 10). Additional data from these other regions would be required to confirm this assumption.
- Enforcement costs for Regions 1, 5, 6, 7, 8, and 10 are based on the average enforcement costs for Region 4 and 9. In making this calculation, EPA assumes that regional enforcement costs would vary depending upon the number of applications received in that region. However, discussions with regions suggested the enforcement costs may actually decrease if a region processes a larger number of applications, given funding limitations.
- Alternative options vary the fees that will be charged to training providers, individuals, and firms. It is likely that higher or lower fees for a given accreditation or certification will result in fewer or more applications, respectively. EPA's preferred option, Option 2, includes lower fees for workers specifically to encourage more workers to become certified. It is worth noting that lowering the worker fees requires that other fees be higher, and it is reasonable to expect that these higher fees would result in fewer applications for these accreditations and certifications. However, because sufficient data are not available to estimate how the number of applications would change in response to a change in the fees, this analysis makes the simplifying assumption that the number of applications will not change under the different fee structures.

Given the limitations, EPA conducted a sensitivity analysis on some key assumptions, as described in Section 5.

3. LRRP Fees

This chapter describes the methodology EPA used to estimate the fees to cover the costs of administering and enforcing lead-based paint activities under the Lead Renovation, Repair and Painting (LRRP) rule.

When the Abatement rule was first promulgated in 1999, it was based upon estimates. The current cost of associated with the Abatement rule and the preferred option for the revised fee schedule are presented in Chapter 2. This chapter modifies the Abatement rule framework with information from EPA Headquarters and the Regions using estimates of the LRRP universe from the Economic Analysis for the TSCA Lead Renovation, Repair, and Painting Program Final Rule for Target Housing and Child-Occupied Facilities (Economic Analysis for the LRRP Final Rule). The methodology, described below, follows the following key steps:

- Identify the universe of facilities from the Economic Analysis for the LRRP Final Rule;
- Estimate the total LRRP program costs, including regional and headquarters costs;
- Calculate the fee levels to meet the program costs.

3.1. LRRP Universe

The Lead, Renovation, Repair, and Painting program applies to renovation activities in target housing and child-occupied facilities (COFs). Under the LRRP rule, firms that are subject to the regulations need to obtain EPA certification, ensure that at least one employee receives renovator training from an accredited training provider, and, if necessary, provide additional training to other workers, and ensure that the work practices required by the rule are used for all covered renovation activities. Additionally, training providers teaching the certification courses will need to obtain EPA accreditation.

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 6 resides or is expected to reside in such housing) or any 0-bedroom dwelling. A child-occupied facility (COF) is defined as “a building, or portion of a building, constructed prior to 1978, visited regularly by the same child, under the age of six, on at least 2 different days within any week (Sunday through Saturday period), provided that each day’s visit lasts at least 3 hours and the combined weekly visits last at least 6 hours, and the combined annual visits last at least 60 hours.” “Child-occupied facilities may include, but are not limited to, day-care centers, preschools and kindergarten classrooms.” Child-occupied facilities (COFs) in target housing include family daycare providers and the homes of family, friends, and neighbors who regularly care for someone else’s children.

The Economic Analysis for the LRRP Final Rule estimated the universe of affected entities for the final rule (Option F), based upon the set of criteria for listed in Table 3-1. Table 3-1 describes the scope; the application of the minor maintenance exception; certification and training periods; the additional training required for previously trained individuals; how exterior containment requirements are described in the rule; whether any paint removal

practices are prohibited for renovations requiring lead-safe work practices under the rule; and whether digital photographs are required as part of trainee registration.

Table 3-1: Final Rule Criteria for Universe of Affected Entities

The Final Rule Option (Option F)							
Scope		Minor Maintenance Exception	Certification & Training Periods	Previously Trained Individuals	Exterior Containment	Prohibited Practices ^{vi}	Digital Trainee Photos
First Year	Second Year						
All rental target housing and COFs, and owner-occupied target housing <i>where a child under the age of 6 or a pregnant woman resides.</i>		≤6 ft ² per room for interiors, ≤20 ft ² for exteriors.	Firm certification and renovator training periods are 5 years each	Certification given to those with previous training only if they complete a refresher course.	Cover the ground a sufficient distance to collect falling paint debris, with a minimum of 10 feet required.	Yes ‡	Yes
^{vi} Practices prohibited or restricted for renovations requiring lead-safe work practices under the rule or qualifying for the minor maintenance exception: Open-flame burning or torching of LBP; using machines that remove LBP through high speed operation such as sanding, grinding, power planing, needle gun, abrasive blasting, or sandblasting, unless such machines are used with HEPA exhaust control; and operating a heat gun on LBP at 1100° F or higher. <i>Source: U.S. Environmental Protection Agency, Economic Analysis for the TSCA Lead Renovation, Repair, and Painting Program Final Rule for Target Housing and Child-Occupied Facilities, March 2008</i>							

EPA relied on the Economic Analysis of the LRRP Final Rule to estimate the number of applicants. As presented in Table 3-2, EPA estimates 168 initial training provider accreditations, 211,721 initial firm certifications, 235,916 renovator certifications, and 3,170 sampling technician certifications will be received in the first year the rule is promulgated.

Sampling technicians conduct dust sample testing. EPA assumes that the stock of sampling technicians seeking registration will largely come from technicians working in federally-assisted housing. This analysis used HUD data for the number of federally-assisted housing units affected by HUD’s Final Rule on Lead-Based Paint to estimate the number of sampling technicians in the first year of the rule.

Table 3-2. Estimated Number of Training Providers Seeking Accreditation, Firms Seeking Certification, Renovators Seeking Training, and Sampling Technicians Seeking Training

Final Rule – Year 1	
Total Number of Training Providers Seeking Accreditation	168
Total Number of Firms (Establishments with Employees and without) Seeking Certification	211,721
Total Number of Renovators Seeking Training	235,916
Total Number of Sampling Technicians Seeking Certification	3,170
<i>Source: U.S. Environmental Protection Agency, Economic Analysis for the TSCA Lead Renovation, Repair, and Painting Program Final Rule for Target Housing and Child-Occupied Facilities, March 2008</i>	

EPA assumes the number of new accreditations and certifications will meet the demand for LRRP activities in the first year. Thus, the number of training providers, firms, renovators, and sampling technicians in year 1 are the total number of entities accredited or certified to conduct LRRP activities (the “stock”). However, the Economic Analysis of the LRRP Final Rule estimates a slight decrease in demand for these activities by approximately 0.4 percent per year.

The LRRP rule requires reaccreditation and recertification every five years. In estimating the average annual cost, EPA examined the first five years of the program and estimated the number of firms, training providers, renovators, and sampling technicians over a five year period. Accordingly, the analysis assumes that between years 1 and 5 there will only be new accreditations and certifications.

To meet the estimated demand between years 2 and 5, EPA assumes that new accreditations and certifications will be required to replace firms and training providers that “drop-out” of the LRRP program. This “drop-out” rate is assumed to be consistent with the “drop-out” rate under the Abatement rule. Using the Federal Lead Paint Program (FLPP) data from FY 2003 through FY 2006, EPA estimated the “drop-out” rate by calculating the ratio of new accreditations to the total number of accreditations and reaccreditations (for training providers), or the ratio of new certifications to the total number of certifications and recertifications (for firms and individuals).

Table 3-3 presents EPA’s estimate of the number of applicants under the LRRP rule over the five-year projection period.

Table 3-3. Estimated Number of Firms Seeking Certification, Renovators Seeking Training, and Training Providers Seeking Accreditation for the First Five Years

Summary of LRRP Rule	Year 1 ¹	Year 2	Year 3	Year 4	Year 5
Training Providers					
New Accreditations	168	16	15	15	15
Re-Accreditations	0	0	0	0	0
Total Accreditations/Reaccreditations	168	16	15	15	15
<i>Stock of Training Providers</i>	<i>168</i>	<i>167</i>	<i>167</i>	<i>166</i>	<i>165</i>
Firms					
New Certifications	211,721	72,259	71,962	71,667	71,373
Re-Certifications	0	0	0	0	0
Total Certifications/Recertifications	211,721	72,259	71,962	71,667	71,373
<i>Stock of Firms</i>	<i>211,721</i>	<i>210,853</i>	<i>209,988</i>	<i>209,127</i>	<i>208,270</i>
Number of Renovators²					
Initial Certification	235,916	94,829	94,440	94,053	93,667
Recertification	0	0	0	0	0
Total Initial/Refresher Training for Renovators	235,916	94,829	94,440	94,053	93,667
<i>Stock of Renovators</i>	<i>235,916</i>	<i>234,949</i>	<i>233,985</i>	<i>233,026</i>	<i>232,071</i>
Number of Sampling Technicians^{1,2}					
Initial Training	3,170	1,274	1,269	1,264	1,259
Refresher Training	0	0	0	0	0
Total Initial/Refresher Training	3,170	1,274	1,269	1,264	1,259
<i>Stock of Sampling Technicians</i>	<i>3,170</i>	<i>3,157</i>	<i>3,144</i>	<i>3,131</i>	<i>3,118</i>
¹ Number of estimated applications in Year 1 based on the final rule Option F in LRRP Economic Analysis, dated March 28, 2008. The estimate of Sampling Technicians is based on HUD data. ² Individual certification from EPA not required for renovators or sampling technicians. These applicants are required to notify EPA of receiving appropriate certificate from training provider.					

3.2. Program Costs

This section describes the methodology used to estimate the costs for administering and enforcing the LRRP rule for training providers and firms, as well as clerical processing costs for each renovator in States without authorized programs.

EPA regions have a great deal of responsibility for implementing the LRRP program. They conduct a range of administrative activities, which will vary for different types of accreditation and certification. The major types of EPA regional activities are 1) processing of applications, 2) administrative activities, and 3) enforcement activities, which are described in detail below.

3.2.1. Regional Processing Cost

Overall, the time to process applications reflects the time a region requires to review and either approve or disapprove an application. Specific activities may include, for example:

- Examining applications for completeness and verifying compliance with all applicable requirements for accreditation or certification (e.g., course materials and curriculum or firm experience and educational background).
- Tracking accredited training programs and certified firms and other related support activities.
- An on-site review of the training programs being considered for accreditation.
- Clerical activities such as receiving, opening, logging, filing, storing, and updating applications and other correspondence.

To estimate the regional processing time and cost for the LRRP rule, EPA assumes the activities and processing time for firm and training provider applications are equivalent to the Abatement rule. Consistent with the approach for estimating the processing time for the Abatement rule (see Section 2.2), EPA estimated the average hours spent processing individual, firm and training provider applications based on the Time-Motion Study data.

Based on the study results, EPA calculated the average processing time for firm and training provider applications by Region. As presented in Table 3-4, EPA used the same average processing time for firms and training providers as reported in the Time-Motion Study under the Abatement rule. Region 4 did not process firm and training provider applications during the Time-Motion Study period, so for the LRRP rule estimates, EPA used the average processing time reported by Regions 2 and 9.

Under the LRRP rule, EPA does not certify or review renovator or sampling technician applications. The certification that they receive from training providers after completing their training course will serve as their certification. EPA will receive notification from the training provider for each certification including a digital photo, which Headquarters will upload to the FLPP database. Therefore, EPA assumed the processing costs for renovators and sampling technicians were negligible.

Using the average processing time reported from Regions 2 and 9, EPA calculated a weighted average for each type of application to be used as the national average. Given that the average processing times were derived from the Time-Motion Study, EPA used the number of applications processed in the study to calculate the weighted average. However, a weighted average using the Time-Motion Study data was not possible for training providers because Region 2 did not process an accreditation during the study time period and Region 9 did not process a re-accreditation during the study time period. To calculate the weighted average for training provider applications, EPA used FLPP data for the average annual number of accreditations and re-accreditations in Regions 2 and 9.

Table 3-4. Summary of Average Processing Time (Level of Effort) for Regions 2 and 9, including a Weighted Average for a National Estimate.

Average Processing Time (Hours/Application)					
Application Type	Certification/ Re-certification	Region 2	Region 9	Weighted Average by Time-Motion Study data (Regions 2, 9)	Weighted Average by FLPP data (Regions 2, 9)
Firm	Initial	0.4	1.5	0.5	--
Firm	Recertification	0.4	1.3	0.6	--
Training Provider	Accreditation	8.5	26.1	26.1	14.8
Training Provider	Re-Accreditation	1.5	4.5	1.5	2.9

Based on EPA wage rate information for 2007 (see Appendix D), EPA estimated the average processing cost per application for each region. As presented in Table 3-5, the cost per application was significantly lower in Region 2, correlating to the significant decrease in processing time. The weighted average for firms was significantly closer to the Region 2 estimate due to the high volume of applications processed in Region 2 as compared to Region 9.

Table 3-5. Summary of Average Processing Cost (Level of Effort) for Regions 2 and 9, including a Weighted Average for a National Estimate.

Average Processing Cost (Hours/Application)					
Application Type	Certification/ Re-certification	Region 2	Region 9	Weighted Average by Time-Motion Study data (Regions 2, 9)	Weighted Average by FLPP data (Regions 2, 9)
Firm	Initial	\$9	\$27	\$11	--
Firm	Recertification	\$9	\$25	\$12	--
Training Provider	Accreditation	\$159	\$492	\$492	\$277
Training Provider	Re-Accreditation	\$29	\$94	\$29	\$59

Table 3-6 presents the estimates for the annual regional processing cost for the first five years of the LRRP rule. To estimate the annual processing cost, EPA multiplied the weighted average unit cost per application by the estimated number of applications from the LRRP universe (see Section 3.1).

The difference in relative burden between the initial and refresher courses (42 percent) is based on the 1999 Abatement fees analysis.

Table 3-6. Summary of Annual Average Regional Processing Cost

Program	Estimate of Regional Processing Cost			Estimated Number of Applications Processed ¹					Annual Processing Cost ²				
	Average cost	Relative Burden to distinguish Level of Effort (%)	Average cost per applicant (\$)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5
Training Program Accreditation													
Initial	\$277	100%	\$277	168	16	15	15	15	\$46,517	\$4,292	\$4,275	\$4,257	\$4,240
Refresher		42%	\$116	168	16	15	15	15	\$19,537	\$1,803	\$1,795	\$1,788	\$1,781
Training Program RE-accreditation													
Initial	\$59	100%	\$59	0	0	0	0	0	\$ -	\$ -	\$ -	\$ -	\$ -
Refresher		42%	\$25	0	0	0	0	0	\$ -	\$ -	\$ -	\$ -	\$ -
Firm Certification													
Initial Certification	\$11	N/A	\$11	211,721	72,259	71,962	71,667	71,373	\$2,283,024	\$779,177	\$775,982	\$772,801	\$769,632
Re-Certification/ Extension	\$12	N/A	\$12	0	0	0	0	0	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL (Training Programs and Firms Only)				212,057	72,290	71,993	71,698	71,404	\$2,349,078	\$785,272	\$782,052	\$778,846	\$775,653
¹ Based on average number of applications sent to lead Regions between FY2003 and FY2006, excluding amendments.													
² Figures may not sum due to rounding.													

3.2.2. Regional Administrative and Enforcement Cost

In addition to processing costs, regions incur costs for other administrative activities and enforcement. Administrative activities include, for example, answering phone inquiries from the public regarding the LRRP program, following up on the status of applications, providing information to other regions, coordinating with headquarters, and performing other customer service activities. Enforcement activities include, for example, conducting audits of training providers and firms.

Administrative Costs

Because certain regional administrative activities are associated with applications, EPA assumed the administrative level of effort is related to the total number of applications processed. To calculate the administrative level of effort for the LRRP rule, EPA assumed the average administrative cost per application is consistent with the Abatement rule. As presented in Table 3-7, EPA calculated the average administrative cost per application for the Abatement rule by dividing the administrative cost estimate of \$151,532 by the number of applications processed in FY 2006 (2,772 applications). EPA used FY 2006 because the administrative FTE estimates from Regions 2, 4, and 9 were based upon that year.

Table 3-7. Average Regional Administrative Processing Cost from Abatement Rule

Administrative Cost FY 2006 ¹	\$151,532
Number of Applications FY 2006 ²	2,772
Average Administrative Cost per Application	\$55
¹ Based on allocation of resources to administrative activities in FY2006, as included in the 2008 Abatement Rule Lead Fees Analysis. Estimated cost based on hours per applications multiplied by administrative wage per hour.	

Then, EPA multiplied the average administrative cost per application by the number of training provider and firm applications anticipated for the first five years after the LRRP rule is promulgated. Table 3-8 presents the average annual administrative cost for the first five years as well as the number of training providers and firms from the LRRP universe estimates used to calculate the annual administrative costs.

Table 3-8. Average Administrative Cost for the First Five Years of the LRRP Rule.

Program	Year 1	Year 2	Year 3	Year 4	Year 5
Number of Training Providers	168	16	15	15	15
Number of Firms	211,721	72,259	71,962	71,667	71,373
Average Annual Administrative Cost	\$11,584,004	\$3,951,236	\$3,935,036	\$3,918,902	\$3,902,835

Enforcement Costs

To estimate the average annual regional enforcement cost, EPA assumed the FTE and cost for the LRRP rule is consistent with the Abatement rule. When interviewed for this study, regions indicated that enforcement costs under the Abatement rule, are largely dependent on available

funding, not on the number of applications received. Table 3-9 presents the average annual regional enforcement cost.

Table 3-9. Average Regional Enforcement Cost for the First Five Years of the LRRP Rule.

EPA Labor Type	FTE	Cost
EPA Technical, GS-12, Step 2	13.7	\$1,302,609

3.2.3. Headquarters Administrative and Enforcement Cost

EPA Headquarters activities under the LRRP rule include startup, administrative, and enforcement activities, described in detail below.

Startup Costs

The startup activities will be related to modifying the FLPP database for the LRRP applications, prepare new applications and instruction forms, and prepare evaluation forms. As presented in Table 3-10, EPA estimates that the one-time costs associated with these activities will total \$59,562, or \$14,226 annualized over five years.

Table 3-10. Summary of Startup Costs

One-Time Costs	Annual Cost (\$)
Modifications to Database to add LRRP applicants ¹	\$37,500
Preparation of LRRP applications and instructions ²	\$11,031
Preparation of LRRP evaluation forms ²	\$11,031
TOTAL	\$59,562
Total One-time Costs: Annualized: 5 years, 7%	\$14,526
¹ Based on information provided by EPA to modify Abatement fees database for LRRP rule. ² Inflated 1999 estimated costs based on 1999 Abatement Fees analysis to 2008 dollars using interest rate of 7 percent. [Awaiting additional information from EPA to determine appropriate factor by which to scale the costs to account for higher universe.]	

Administrative Costs

Similar to the Abatement rule, the administrative activities associated with the LRRP rule will primarily include:

- Coordination with the Regions. Involves preparing or reviewing reports related to the LRRP rule, addressing inquiries, coordinating efforts, or assuring proper implementation of the LRRP rule.
- Maintenance of the central database and registry. Requires EPA headquarters staff to work with the contractors to enter information about the application (e.g., date, type, lead

region, etc.) from the LRRP applicants into the Federal Lead Paint Program (FLPP) Database.

Consistent with administrative costs for the Abatement rule, EPA estimates that support for these activities will require at least one full time Technical EPA employee, totaling approximately \$76,777 annually (see Table 3-11).

Table 3-11. Summary of EPA Headquarters Support Cost

EPA Labor Type	Rate per FTE (\$/FTE)	FTE	Total Annual Cost (\$)
Technical (GS 11)	\$76,777	1.00	\$76,777

In addition to the Headquarters personnel, EPA will require contractor support to manage and maintain the FLPP database. To estimate the contract support costs for training providers and firms, EPA calculated the contractor support cost per application under the Abatement rule, or \$210 per application. EPA estimated this cost by dividing the average annual contractor support costs between FY2002 to FY2006 (\$582,929) by the total number of Abatement applications (2,772). As noted previously, EPA Headquarters receives additional applications which may be disapproved, returned, or withdrawn. However, all of the LRRP applicants estimated as part of the LRRP universe would need to be approved to meet the estimated demand. Therefore, the analysis assumes that the proportion of total applicants received by headquarters to those processed by EPA regions is consistent with the Abatement rule.

In addition, EPA assumed the contractor costs for the FLPP database for renovator and sampling technician notifications would be \$5 per application. EPA multiplies the applicable unit application cost by the total number of estimated LRRP applications for each application type to estimate the total contractor costs. Next, the cost to maintain the database annually (\$180,000) is added to obtain the total annual contractor support costs. Table 3-12 presents a summary of the contractor support costs that EPA will incur over the five year projection period.

It is important to note that the total estimated contractor support costs for the training providers and firms are significantly higher than the Abatement rule because of the assumptions used to estimate these costs. Using a per application cost based on the Abatement rule may overestimate the costs as it assumes all of the contractor support costs (except for the maintenance costs) are variable. Accordingly, given the high volume of firm and training provider applicants under the LRRP rule (211,889 applications in the first year) as compared to the Abatement rule (2,772 annually) the contractor support costs are more significant.

Table 3-12. Contractor Support Costs

	Year 1	Year 2	Year 3	Year 4	Year 5
Number of Training Providers	168	16	15	15	15
Number of Firms	211,721	72,259	71,962	71,667	71,373
Number of Renovators	235,916	94,829	94,440	94,053	93,667
Number of Sampling Technicians	3,170	1,274	1,269	1,264	1,259
Total	450,975	168,377	167,687	166,999	166,314
Per Application Cost (Training Providers and Firms)					
	\$210	\$210	\$210	\$210	\$210
Per Application Cost (Renovators and Sampling Technicians)					
	\$5	\$5	\$5	\$5	\$5
Contract Costs	\$45,753,956	\$15,679,166	\$15,614,882	\$15,550,861	\$15,487,102
Maintenance of FLPP Database	\$180,000	\$180,000	\$180,000	\$180,000	\$180,000
Total Contractor Support					
	\$45,933,956	\$15,859,166	\$15,794,882	\$15,730,861	\$15,667,102
Contractor Support (Training Providers and Firms)	\$44,643,098	\$15,275,915	\$15,213,600	\$15,151,541	\$15,089,737
Contractor Support (Renovators)	\$1,273,742	\$575,518	\$573,574	\$571,638	\$569,710
Contractor Support (Sampling Technicians)	\$17,115	\$7,733	\$7,707	\$7,681	\$7,655

As noted previously, under the LRRP rule, because applications for renovators and sampling technicians will be processed via training providers, EPA Headquarters will only incur database and maintenance support costs for these applicants. EPA estimates that the renovator and sampling technician portion of these costs would total approximately \$1,273,742 and \$17,115, respectively (see Table 3-12).¹⁷

Enforcement Costs

Based on information in the LRRP Economic Analysis, the Office of Enforcement and Compliance Assurance (OECA) estimates two technical level employees will be required to support enforcement activities annually. Table 3-13 presents the annual cost for headquarters enforcement.

Table 3-13. Enforcement Cost

Annual Cost Activities	Labor type	Rate per FTE (\$/FTE)	FTE	Annual Cost (\$)
Enforcement (Administrative) ¹⁷	Technical (GS 12)	\$95,081	2.00	\$190,162
¹⁷ Assume annual Regional Enforcement Cost based upon the LRRP Rule Economic Impact Analysis (EIA).				

Table 3-14 provides a summary of the EPA Headquarters costs for training providers and firms and renovators over the five-year projection period.

¹⁷ Total costs for each applicant type reflect the contract costs plus the maintenance cost (\$180,000) weighted by the number of applications.

Table 3-14. Summary of EPA Headquarters Costs

	Year 1	Year 2	Year 3	Year 4	Year 5
Training Providers and Firms					
One-time costs	\$14,526	\$14,526	\$14,526	\$14,526	\$14,526
Headquarter support	\$76,777	\$76,777	\$76,777	\$76,777	\$76,777
Contractor support	\$44,643,098	\$15,275,915	\$15,213,600	\$15,151,541	\$15,089,737
Total Administrative	\$44,734,401	\$15,367,218	\$15,304,903	\$15,242,844	\$15,181,040
Enforcement	\$190,162	\$190,162	\$190,162	\$190,162	\$190,162
TOTAL	\$44,924,563	\$15,557,380	\$15,495,065	\$15,433,006	\$15,371,202
Renovators					
TOTAL	\$1,273,742	\$575,518	\$573,574	\$571,638	\$569,710
Sampling Technicians					
TOTAL	\$17,115	\$7,733	\$7,707	\$7,681	\$7,655

3.2.4. Summary of Total Annual Cost

Based on the estimated regional and headquarters costs, Table 3-15 presents a summary of the total annual costs to administer and enforce the LRRP rule for training providers and firms. In addition, Table 3-16 and Table 3-17 summarize the costs for renovators and sampling technicians.

Table 3-15. Summary of Total LRRP Costs for Training Providers and Firms

Cost	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Estimated Number of Applications	212,057	72,290	71,993	71,698	71,404	499,442
Total Regional Processing Costs	\$ 2,349,078	\$ 785,272	\$ 782,052	\$ 778,846	\$ 775,653	\$ 5,470,900
Regional Administrative Costs	\$ 11,584,004	\$ 3,951,236	\$ 3,935,036	\$ 3,918,902	\$ 3,902,835	\$ 27,292,013
Regional Enforcement Costs	\$ 1,302,609	\$ 1,302,609	\$ 1,302,609	\$ 1,302,609	\$ 1,302,609	\$ 6,513,046
Headquarters Administrative Costs	\$ 44,751,517	\$ 15,374,952	\$ 15,312,611	\$ 15,250,526	\$ 15,188,695	\$ 105,878,301
Headquarters Enforcement Costs	\$ 190,162	\$ 190,162	\$ 190,162	\$ 190,162	\$ 190,162	\$ 950,810
Total Regional Enforcement, Administrative and HQ Costs	\$ 57,828,292	\$ 20,818,958	\$ 20,740,418	\$ 20,662,199	\$ 20,584,301	\$ 140,634,169
TOTAL COST TO EPA	\$ 60,177,370	\$ 21,604,230	\$ 21,522,470	\$ 21,441,045	\$ 21,359,954	\$ 146,105,069

Table 3-16. Summary of Total LRRP Costs for Renovators

Cost	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Estimated Number of Applications	235,916	94,829	94,440	94,053	93,667	612,904
Total Regional Processing Costs	--	--	--	--	--	--
Regional Administrative and Enforcement Costs	--	--	--	--	--	--
Headquarters Administrative Costs	\$1,273,742	\$575,518	\$573,574	\$571,638	\$569,710	\$3,564,183
Headquarters Enforcement Costs	--	--	--	--	--	--
Total Regional Enforcement, Administrative and HQ Costs	\$1,273,742	\$575,518	\$573,574	\$571,638	\$569,710	\$3,564,183
TOTAL COST TO EPA	\$1,273,742	\$575,518	\$573,574	\$571,638	\$569,710	\$3,564,183

Table 3-17. Summary of Total LRRP Costs for Sampling Technicians

Cost	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Estimated Number of Applications	3,170	1,274	1,269	1,264	1,259	8,236
Total Regional Processing Costs	--	--	--	--	--	--
Regional Administrative and Enforcement Costs	--	--	--	--	--	--
Headquarters Administrative Costs	\$17,115	\$7,733	\$7,707	\$7,681	\$7,655	\$47,892
Headquarters Enforcement Costs	--	--	--	--	--	--
Total Regional Enforcement, Administrative and HQ Costs	\$17,115	\$7,733	\$7,707	\$7,681	\$7,655	\$47,892
TOTAL COST TO EPA	\$17,115	\$7,733	\$7,707	\$7,681	\$7,655	\$47,892

3.3. Fee Options

To estimate fees for the LRRP rule, EPA followed the approach used to estimate fees under Option 1 of the Abatement rule (see Section 2.3). To structure the fees, first, EPA considered the variable and fixed costs associated with each applicant type. As presented in Table 3-15, Table 3-16 and Table 3-17, EPA estimates it will incur approximately \$146.1 million in costs for training providers and firms during the first five years the LRRP rule is implemented. Furthermore, EPA will incur approximately \$3.56 million for renovators and \$47,892 for sampling technicians in the same time period.

As discussed in Section 3.2.1, the variable costs reflect the regional processing costs for each application type. On the other hand, the fixed costs include the regional and headquarters administrative and enforcement costs, which apply across all the applications. To estimate the fixed costs, EPA divided the total regional enforcement, administrative and headquarters costs by the total estimated number of applicants over the five year projection period. This results in a fixed cost of \$282 for training providers and firms. renovators and sampling technicians, however, only incur Headquarters administrative costs to support the Optimus contract and FLPP database. Accordingly, these costs were divided by the estimated number of renovator and sampling technician applications over the five year period resulting in fixed costs of \$6 per application. As presented in Table 3-18, EPA adds the fixed cost for each applicant type to the variable costs to estimate the total cost by applicant type.

Table 3-18. Summary of Fee Estimates

Application	Average Processing Cost per Applicant (\$) ¹ [A]	Fixed Cost ² [B]	Total Cost/Fee [C]=[A]+[B] ³
Training Program Accreditation			
Initial	\$277	\$282	\$558
Refresher	\$116	\$282	\$398
Training Program Reccreditation			
Initial	\$59	\$282	\$340
Refresher	\$25	\$282	\$306
Firm Certification			
Initial	\$11	\$282	\$292
Recertification	\$12	\$282	\$293
Renovator Certification			
Initial	\$0	\$6	\$6
Recertification	\$0	\$6	\$6
Sampling Technician Certification			
Initial	\$0	\$6	\$6
Recertification	\$0	\$6	\$6
¹ Average processing cost based on weighted average of processing costs from the 2007 Time-Motion Study. ² Fixed amount and ratio method based on total estimated processing, administrative, and enforcement costs over three years. ³ Individual certification from EPA is not required for renovators or sampling technicians.			

Next, EPA determined the best approach to capturing the renovator and sampling technician costs. As noted previously, renovators and sampling technicians are required to work for a firm. Furthermore, training providers will notify EPA of renovators and sampling technicians receiving appropriate certification. Accordingly, as presented in Table 3-19 below, EPA estimates the ratio of renovators to training providers and the ratio of renovators to firms to determine the additional fee that should be added to firms or training providers to capture the renovator costs.

Table 3-19. Alternative Approaches to Capturing Renovator Costs

Application	Number per Training Provider or Firm [A]	Fee [B]	Additional Fee [C]=[A]*[B]
Link to Training Provider (Initial and Reaccreditation)			
Renovator	5,175	\$6	\$30,092
Sampling Technician	18.9	\$6	\$110
Total Additional Fee for Training Providers:			\$30,202
Link to Firm (Initial and Recertification)			
Renovator	1.3	\$6	\$7.40
Sampling Technician	0.015	\$6	\$0.09
Total Additional Fee for Firms:			\$7.50

Given that every certified firm must have a least one certified renovator, and the close proportion of renovators to firms (a ratio of 1.3, or approximately 13 renovators for every 10 firms), it is more reasonable to link these costs to the firms than to training providers to estimate the total fee. In addition, only a relatively few Sampling Technicians are expected to seek certification, (approximately 15 Sampling Technicians for every 1,000 firms), and thus their cost would add little to the overall firm costs (see Table 3-20). Under EPA's preferred fee schedule tribes will be charged a nominal fee (\$20 for firm applicants, and \$10 for individual certifications) and firms applying for both an Abatement certification and a LRRP certification will only be charged for the more expensive Abatement certification. Firms that are ineligible for these discounts will be charged an additional \$1.60 to cover the costs of the discounts.

Table 3-20. Total Fee for Training Providers and Firms

Application	Fee [A]	Discount or Additional Fee ¹ [B]	TOTAL FEE [C]=[A]+[B]
Training Program Accreditation			
Initial	\$558	\$0	\$558
Refresher	\$398	\$0	\$398
Training Program Reccreditation			
Initial	\$340	\$0	\$340
Refresher	\$306	\$0	\$306
Firm Certification			
Initial	\$292	\$9.10	\$301
Recertification	\$293	\$9.10	\$302
Tribal Firm Certification			
Initial	\$292	(\$272)	\$20
Recertification	\$293	(\$273)	\$20
¹ \$7.50 of the \$9.10 additional fee is to cover EPA's costs associated with the renovator and sampling technician parts of the program. Individual certifications from EPA are not required for renovators or sampling technicians. \$1.60 of the \$9.10 additional fee is to cover the costs of the discounts to tribes and abatement firms.			

3.4. Limitations

This section summarizes some of the key limitations concerning the analysis used to estimate the fee levels under the LRRP rule. As discussed above, EPA relied on several key data sources, including the Time-Motion study and other data/information from EPA Regional and Headquarters personnel. Below we highlight the key data limitations and assumptions:

- EPA will incur costs for administering and enforcing the LRRP rule only in States and Tribal areas that do not seek or are not granted authorization to operate their own programs. Currently, the LRRP universe estimates do not account for the subset of firms, renovators and training providers that will be certified or accredited by a state-authorized program. The proportion of “fixed” costs covered by each application would increase if the number of applications is smaller than estimated in the analysis.
- When estimating the fixed costs associated with headquarters administrative and enforcement activities, this analysis only considered those applications that were sent to the regions (or 2,772 applications). As noted previously, EPA headquarters receives additional applications which may be disapproved, returned, or withdrawn. However, unless withdraw the applicants are required to pay a fee to EPA. Accordingly, accounting for these applications may reduce the fixed headquarters costs slightly as these costs may be spread over a larger universe of applicants.
- Although the Time-Motion study (discussed in Section 2.2.1) was completed to track the processing time of applications under the Abatement rule, EPA's estimates of the regional processing time for the LRRP rule was based on this study. Furthermore, the LRRP analysis relies upon data from Regions 2, 4, and 9 on the regional costs to administer Abatement rule on a per application basis.

This assumes that the time to process and administer training provider, firm and individual applications under the Abatement rule will be consistent with the LRRP rule.

- The estimated contractor support costs are significantly higher than the Abatement rule because of the assumptions used to estimate these costs. Using a per application cost based on the Abatement rule (\$210 per application) may overestimate the costs as it assumes all of the contractor support costs (except for the maintenance costs) are variable.

Given the limitations, EPA conducted a sensitivity analysis on some key assumptions, as described in Section 5.

4. Small Entity Impact Analysis

This chapter presents the impact of the accreditation and certification fees for lead-based paint activities under the Abatement rule and the Lead, Renovation, Repair and Painting (LRRP) rule on the financial condition of small entities. The Regulatory Flexibility Act (RFA) of 1980, amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996, requires regulators to assess the effects of regulations on small entities including businesses, nonprofit organizations, and governments. In some instances, agencies are also required to examine regulatory alternatives that may reduce adverse economic effects on significantly impacted small entities. The RFA requires agencies to prepare an initial and final regulatory flexibility analysis for each rule unless the Agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. The RFA, however, does not specifically define “a significant economic impact on a substantial number” of small entities. Sections 603 and 604 of the RFA require that regulatory flexibility analyses identify the types, and estimate the numbers, of small entities to which the rule will apply; and describe the rule requirements to which small entities will be subject and any regulatory alternatives, including exemptions and deferral, which would lessen the rule’s burden on small entities.

This rule establishes the updated accreditation and certification fees for lead-based paint activities under the Abatement rule and renovation activities under the LRRP rule. For the Abatement rule, which was promulgated on June 9, 1999, the 2009 fee rule reduces the fees, which implies that there will be no adverse impact on small entities and in fact, the small entities will incur cost savings. For the LRRP rule, which does not become fully effective until April 2010, this rule establishes fees; therefore, the impact on the small entities will be the full amount of the fees. To fulfill the requirement of RFA, this analysis addresses two basic questions for the LRRP rule: (1) the number and type of small entities potentially affected and (2) the extent of the rule’s potential economic impact on those entities as measured by the fee-revenue ratio.

The next section discusses the small entity impact under the Abatement rule followed by the section that presents the impact for the LRRP rule.

4.1. Abatement Rule

The 1999 lead-based paint activities accreditation and certification fee rule established lead fees for entities involved in lead-based paint activities that include: 1) for-profit training providers seeking accreditation, and 2) firms (and other organizations) performing abatement or risk assessment and inspection services seeking certification.¹⁸ The 2009 fee rule updates the fees established on June 9, 1999. The impact on the small entities will be the change in the accreditation and certification fees. EPA is reducing the fees for all training providers and individual initial certification fees excluding workers and inspectors (Table 4-1). Consequently, EPA estimates that there will be no adverse impact of the rule on training providers; in fact they will incur cost savings.¹⁹

¹⁸ Economic Analysis of the Final TSCA Section 402(a)(3) Lead-Based Paint Accreditation and Certification Fee Rule. U.S. EPA, 1999.

¹⁹ The tribes are charged a nominal fee of \$20 per firm and \$10 per individual certification, therefore tribes will incur even greater savings.

EPA also estimates that there will not be a significant impact from the increase in fees for firms and individuals. In the 1999 small entity impact analysis, EPA included the individual certification fee in assessing the impact of the rule on small firms. EPA had estimated that the cost-revenue ratio for the full amount of the certification fee, which is less than the re-certification fee, is not more than 0.87 percent for all firms across all revenue categories. Firms incur a 3 percent to 30 percent cost increase in the direct fee, and indirectly via fee increases for individuals (3 to 31 percent). With an overall cost-revenue ratio of well under 1 percent for the current fees, the impact of the increase in fees will have a very small affect on small entities. Likewise, the resulting new fees will have a small impact on entities, especially when inflation is taken into account.

Table 4-1: Preferred Option Fee Schedule

Program	Current Fee Schedule ¹¹	Preferred Option Fee Schedule	Percentage Change
Training Providers			
Initial Accreditation	\$2,259	\$870	-61%
Initial Refresher Course	\$1,005	\$688	-32%
Reaccreditation	\$1,426	\$621	-56%
Reaccreditation Refresher Course	\$691	\$576	-17%
Firms			
Firm Certification	\$540	\$555	3%
Firm Recertification	\$430	\$557	30%
Individuals			
Initial Certification (Excluding workers)	\$464	\$414	-11%
Initial Certification - Workers Only	\$280	\$312	11%
Recertification (Excluding workers)	\$404	\$416	3%
Recertification - Workers Only	\$240	\$314	31%
Tribal Firms and Individuals			
Firms, Initial and Recertification		\$20	
All Individuals, Initial and Recertification		\$10	
¹¹ Reflects weighted average based on current fees and annual number of applications between FY2003 to FY2006. The tribes are only charged a special nominal fee of \$20 per firm and \$10 per individual certification.			

4.2. LRRP Rule

The LRRP rule requires that all entities that perform renovation activities for compensation in target housing or public and commercial buildings with Child Occupied Facilities (COFs) be certified by EPA.²⁰ The rule requires that all training providers be accredited by EPA. The 2009 fee rule establishes the accreditation and certification fees that will be applicable when training providers seek accreditation and reaccreditation and firms seek certification and recertification. The rule effects training providers, small entities that provide childcare for compensation, including private sector firms (e.g. daycare centers and family daycare), small governments (particularly school districts) and non-profit organizations; small

²⁰ Economic Analysis of the Lead, Renovation, Repair and Painting Rule, U.S EPA, 2008.

construction-related contracting firms that provide RRP services to residences or public and commercial buildings containing COFs; and property managers and lessors who lease residential space or space to COFs and use their own staff to conduct RRP work in their buildings. This analysis looks at the impact of this fee on these small entities.

Definition of a Small Facility

The Regulatory Flexibility Act (RFA) defines a small government as a government of a city, county, town, school district or special district with a population of less than 50,000. A small non-profit organization is defined as any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. The RFA relies on the definition of a “small business” found in the Small Business Act, which authorizes the Small Business Administration (SBA) to develop definitions for “small business.” For this analysis, EPA uses SBA’s definition of a small business for each industry.

For many industry sectors, the SBA definition of a small business is based on revenues, with the revenue standards varying by industry. In establishing revenue standards, SBA considers a number of economic and market characteristics that may allow a firm to exercise dominance in an industry. These standards represent the maximum revenue that a for-profit enterprise may have, and still qualify as a small business.

As described in the economic analysis of the LRRP rule, the following twelve NAICS codes are the general and specialty contractors this rule will likely impact, and their respective SBA threshold. These are followed with two NAICS codes for residential real estate industries, two NAICS codes for nonresidential real estate industries, and one NAICS code for child day care services that are also likely to be affected by the rule. The last entry on the table is the NAICS code for training providers.

Table 4-2. SBA Revenue Thresholds for Small Business by NAICS Code

NAICS	Industry Description	SBA Revenue Threshold (Millions \$)
Small LRRP Firms		
<i>General and Specialty Contractor Industries</i>		
236118	Residential remodelers	\$28.5
236220	Commercial Building Construction	\$31
238170	Siding contractors	\$12
238350	Finish carpentry contractors	\$12
238290	Other building equipment contractors	\$12
238390	Other building finishing contractors	\$12
238340	Tile and terrazzo contractors	\$12
238220	Plumbing and HVAC contractors	\$12
238150	Glass and glazing contractors	\$12
238320	Painting and wall covering contractors	\$12
238210	Electrical contractors	\$12
238310	Drywall and insulation contractors	\$12
<i>Property Owners and Managers</i>		
531120	Lessors of nonresidential buildings (except mini warehouses)	\$6.5
531312	Nonresidential property managers	\$2.0
531311	Residential Property Managers	\$1.5
531110	Lessors of Residential Buildings and Dwellings	\$6.0
<i>Providers of Day Care Services, Pre-Kindergarten and Kindergarten</i>		
624410	Child day care services	\$6.5
Training Providers		
611519	Other Technical and Trade Schools	\$6.5
<i>Source: U.S. Small Business Administration 2004; U.S. Small Business Administration 2006.</i>		

The RFA classifies small entities as small businesses, small non-profit organizations, or small governments. For purposes of this analysis, training providers, property managers and lessors, and construction-related contractors, are all assumed to be for profit operations. All daycare providers operating in individual homes (frequently referred to as family daycare) are assumed to be for-profit operations. Daycare centers can be operated by for-profit or non-profit organizations. Kindergartens and pre-kindergartens refer to facilities in either public schools (governmental) or in private schools (assumed to be non-profits). These classifications are summarized in Table 4-3.

Table 4-3. Small Entity Classifications

Type of Entity	Business	Non-Profit	Governmental
Day Care Centers	X	X	--
Kindergartens and Pre-Kindergartens in Public Schools	--	--	X
Kindergartens and Pre-Kindergartens in Private Schools	--	X	--
Property Managers and Lessors	X	--	--
Construction-Related Contractors	X	--	--
Training Providers	X	--	--

4.2.1. General Approach and Assumptions

This analysis measures the potential impacts of the accreditation and certification fees on small entities in terms of annualized fees (compliance cost for this rule) as a percentage of annual revenues,²¹ or the cost-impact ratio. This approach is based on the premise that the cost impact percentage is an appropriate measure of an entity's ability to afford the costs attributable to a regulatory change. For purposes of determining small entity impacts, comparing annual compliance costs to annual revenues provides a reasonable indication of the magnitude of the regulatory burden relative to a commonly available and objective measure of a company's business volume. Where regulatory costs represent a very small fraction of a typical establishment's revenue, the impacts of a regulation are likely to be minimal.

This analysis considers nine different groups of entities: training providers for certification and refresher courses, public school districts, private schools, daycare centers, family daycare, construction contractors (residential and non-residential), and property lessors and managers (residential and non-residential). The goal of this analysis is to evaluate the impacts of the LRRP rule on small entities in a typical year.

Therefore, when presenting the number of businesses affected, the analysis presents the annual average values, rather than first or second year numbers. Furthermore, rather than considering the first-year cost of initial certification or accreditation, the fee is annualized given that firms are required to re-certify every five years and training providers are required to seek re-accreditation every four years. The annualized fee depends on the life of the entity: a firm and or training provider that is in business for only the first year would incur the highest cost of the fee on an annual basis while a firm (training provider) that is in business for five years (four years) would incur the lowest fee on an annual basis. Therefore, this analysis presents a range of fee-revenue ratio, from the lowest annualized cost where a firm (training provider) is in business for five years (four years) to the highest annualized cost where a firm or training provider is in business for only one year. The analysis considers the impact of re-accreditation and re-certification also for two scenarios from the highest annualized cost, where a firm or training provider is in business for the first year of re-certification or re-accreditation and the life of firm (training provider) is six (five) years to the lowest annualized cost where a firm (training provider) is in business for five (four) years from the year of re-certification and re-accreditation and the life of the firm (training provider) is ten (eight) years.

The SBA size standards are measured at the firm or parent company level, and conceptually the small entity analysis would also be conducted at that level. Due to data limitations, this small entity analysis is conducted at the establishment level rather than at the firm or parent organization level for most sectors. Census information was available primarily at the establishment level, making an organization-level analysis unfeasible. The only sectors where organization-level data are used are non-residential managers and lessors, and public schools. Because establishments, and not organizations, are analyzed, an assumption is made that none of the small establishments are subsidiaries of larger organizations. This assumption leads to an overestimate of the number of small independent entities affected by the rule. Furthermore, since organization-level revenues of multi-establishment businesses are higher than establishment revenues, the use of establishment data may result in a higher cost-impact ratio than actually exists.

The cost-impact ratios estimated for the residential and non-residential real estate industries (NAICS 531110, 531311, 531120, 531312) in this small entity analysis are based on employment and revenue data

²¹ For private schools, where adequate revenue data were not available, costs are compared to annual expenditures.

for employer establishments only. EPA assumed that the majority of non-residential property lessors and managers are businesses with employees. Further, EPA assumed that a self-employed lessor or manager is likely to hire a contractor to perform work on his property, particularly in a non-residential building.

Unit Cost of the Rule

Firms incur an initial certification fee for the first five years and then incur a re-certification fee in the sixth year. Training providers, on the other hand, incur either an initial accreditation fee for the first four years and then incur a re-accreditation fee in the fifth year. The analysis examines a 5-year period because the certification and the recertification is valid for 5 years and it covers the time period for which the accreditation and reaccreditation is valid. However, some firms (training providers) may not stay in business for the full 5-year period (4-year period). Since the annualized cost of the fee depends on the life of the firm, as mentioned above, EPA analyzed two ends of the range – firms and training providers that are in business for only one year and firms (training providers) that are in business for the entire five-year (4-year) period. The annualized cost of the initial fee would be the highest for a firm or training provider that is in business only for one year after paying the initial fee and the annualized cost of the fee would be the lowest for a firm (training provider) that is in business for five years (four years) after paying the initial fee.

Thus, to estimate the impacts of the costs of the rule on small entities in the affected industries, the following calculations were performed for each NAICS industry:

1. Classify certified establishments as either small or large businesses, depending on their revenues. EPA combined self-employed contractors with small employer establishments to form one small business category. The Agency completed this step in the economic analysis of the LRRP rule.²²
2. Characterize a “typical” small establishment (including revenues and number of employees) in each of the affected industry sectors using Census data. EPA completed this step for the economic analysis of the LRRP rule.
3. Calculate annualized certification and accreditation fee for an entity that is in business only in the first year (high estimate) and for a firm that is in business for five years and training provider that is in business for four years (low estimate). EPA first calculated the present value of the fee that would be incurred in 2010 in 2007 dollars and then annualized the fee using a 3 percent discount rate and a time period equal to one, four and five.
4. Calculate annualized re-accreditation and re-certification fee for an entity that is in business only in the first year (high estimate) after re-accreditation or re-certification, that is for a firm that is in business for six years and training provider that is in business for five years, respectively, and for a firm (training provider) that is in business for five (four) years (low estimate) after re-accreditation and re-certification, that is for a firm that is in business for ten years and a training provider that is in business for eight years. EPA first calculated the present value of the fee that would be incurred in 2015 (for firms) and 2014 (for training providers) in 2007 dollars and then annualized the fee using a 3 percent discount rate and the appropriate time period for each type of firm and training provider.
5. Calculate annualized cost per entity for four types of small firms (training providers) small in each industry sector: a) firms and training providers that are in business for the first year b) firms

²² Chapter 8, Economic Analysis of the Lead, Renovation, Repair and Painting Rule, U.S EPA, 2008.

(training providers) that are in business for five years (four years) c) firms (training providers) that stay in business for five years (four years) and one year after incurring re-certification or re-accreditation fee d) firms (training providers) that are in business for the first five years (four years) after incurring initial fee and stay in business for five years (four years) after incurring re-certification and re-accreditation fee.

6. Calculate cost-impact ratios for the four types of typical small establishment in each industry sector by dividing the appropriate annualized fees incurred by the establishment (Step 5) by the establishment's revenues (Step 2).

As mentioned above, EPA completed steps 1 and 2 in the recent economic analysis for the LRRP rule. Table 4-4 below presents the preferred option fees; the low and high estimates for the annualized cost of the fee as described in steps 3 and 4 are presented in Table 4-7.

Table 4-4: Preferred Option Fee Schedule

Type of Entity	Preferred Option Lead Fees ¹			
	Certification	Re-Certification	Accreditation	Re-Accreditation
Small Firms				
Renovation Firm	\$301	\$302	--	--
Small Training Providers				
Initial Training	--	--	\$558	\$340
Refresher Training	--	--	\$398	\$306

¹. The tribes are only charged a special nominal fee of \$20 per firm and \$10 per individual certification.

4.2.2. Small Entities Potentially Affected by the Rule

The economic analysis for the LRRP rule estimated the number of small entities affected in all industry categories except the training providers for the 50-year analysis period.²³ Using the third year estimates developed in that analysis, EPA calculated the 5-year average number of small entities affected by the lead fees rule.²⁴ In each year of the rule, EPA expects that the number of affected entities will decline proportionally to the demolition of older households in the United States. Consistent with the LRRP analysis, this analysis estimates that the total stock of affected small entities will decline by 0.41 percent in each year after 2010. The 5-year average number of affected small entities was thus calculated using the following formula:

$$\text{Annual Average} = \frac{[(A1*(1-r^n))/(1-r)]}{50}$$

where:

A1 = First year number of firms

r = (1 - 0.41% demolition rate), or 0.9959

n = 5 years covered by the analysis

²³ Chapter 8, Economic Analysis of the Lead, Renovation, Repair and Painting Rule, U.S EPA, 2008.

²⁴ Third year estimates were appropriate because although the LRRP rule does not become effective until 2010, the LRRP rule analysis period began in 2008.

EPA had also estimated the average revenue for the small entities using the U.S. Economic Census data for 2002.

Table 4-5 presents the number of small entities by NAICS group and the average revenue of these estimates adjusted to 2007 dollars. EPA estimates that an average of 204,801 small firms and 155 small training providers will be impacted by the rule.²⁵ Although a large number of small entities are impacted by this rule, as we discuss in the next section, EPA estimates that the cost impact on these entities will be very small.

Table 4-5: Average Number of Small Entities and Average Small Entity Revenue

NAICS	Industry Description	5-Year Avg. Small Entities Affected ¹¹	Estimated Avg. Small Entity Revenue ¹²
General and Specialty Contractor Industries			
236118	Residential remodelers	44,915	\$196,322
236220	Commercial Building Construction	101	\$2,017,329
238170	Siding contractors	3,267	\$216,324
238350	Finish carpentry contractors	31,894	\$108,086
238290	Other building equipment contractors	1,482	\$628,648
238390	Other building finishing contractors	2,029	\$248,383
238340	Tile and terrazzo contractors	4,556	\$139,620
238220	Plumbing and HVAC contractors	16,758	\$464,348 - \$980,675
238150	Glass and glazing contractors	1,351	\$361,576
238320	Painting and wall covering contractors	17,852	\$93,196 - \$438,155
238210	Electrical contractors	12,329	\$377,438 - \$933,202
238310	Drywall and insulation contractors	7,454	\$258,092
Property Owners and Managers			
531120	Lessors of nonresidential buildings (except mini-warehouses)	9,141	\$117,925
531312	Nonresidential property managers	2,866	\$162,616
531311	Residential Property Managers	6,325	\$367,546
531110	Lessors of Residential Buildings and Dwellings	17,343	\$881,472
Providers of Daycare Services, Pre-Kindergarten, and Kindergarten			
624410	Child daycare services	11,383	\$292,629
611110	Private Schools	6,705	\$1,015,686
611110	Public Schools	7,050	\$16,997,060
Training Providers			
611519	Other Technical and Trade Schools	155	\$859,547 ¹³
Total		204,956	
¹¹ EA LRRP rule ¹² From EA, LRRP rule Updated to 2007 dollars using U.S. BLS CPI data. ¹³ U.S. Census Bureau. 2006. "Establishment and Firm Size: 2002 (Including Legal Form of Organization)." 2002 Economic Census. Updated to 2007 dollars using U.S. BLS CPI data.			

EPA also estimated the total number of small businesses, small non-profits and small governments affected by the rule and their average revenues (Table 4-6). EPA estimates that of the 204,956 small entities that would be affected by this rule, 179,820 are small businesses, 18,088 are small non-profits and 7,050 are small governments.

²⁵ Of the estimated 179,820 small general and specialty contractors, property owners and managers and training providers, approximately 52,000 have annual revenues of less than \$25,000. See Appendix E for details.

Table 4-6: Aggregate Small Entity Numbers and Revenues

Small Entities	Number of Small Entities Affected	Average Revenue
Small Governments	7,050	\$16,997,060
Non-Profit Organizations	18,088	\$292,629 - \$1,015,686
Small For-Profit Businesses	179,818	\$93,196 - \$2,017,329
Total	204,956	\$93,196 - \$16,997,060

4.2.3. Impacts on Small Entities Affected by the Rule

EPA estimated the impacts of the rule on each of the small entities by comparing the costs of the rule incurred by an establishment to the establishment's revenues for four types of entities ranging from low to high cost impact: a) firms and training providers that are in business for the first year b) firms (training providers) that are in business for five years (four years) c) firms (training providers) that stay in business for the first five years (four years) after incurring initial fee and one year after incurring re-certification or re-accreditation fee – a total of six (five) years in business d) firms (training providers) that stay in business for first five years (four years) after incurring initial fee and stay in business for another five (four) years after incurring re-certification and re-accreditation fee – a total of ten (eight) years in business). To measure the cost impact for each of these types of entities, EPA calculated the appropriate annualized fee to estimate the cost-revenue ratio using the average revenues from Table 4-5 above.

Table 4-7 presents the annualized cost of the fee for each of these typical entities below. EPA notes that the entities that are in business only for one year incur the highest fee on an annual basis followed by entities who stay in business for five years (four years) after paying initial fee and for one year after the re-certification or re-accreditation fee. Since the fee is highest for training providers, the small training providers that stay in business for only one year have the highest annualized fee (\$526).

Table 4-7. Average Annualized Cost per Entity (Steps 3, 4 and 5)

Entities	Certification	Re-Certification	Accreditation	Re-Accreditation	Total Annualized Cost
Small LRRP Firms, Small Governments and Non-Profit Organizations					
Firms in business for 1 year	\$284	\$0	--	--	\$284
Firms in business for 5 years	\$62	\$0	--	--	\$62
Firms in business for 6 years	\$52	\$45	--	--	\$98
Firms in business for 10 years	\$33	\$29	--	--	\$62
Training Providers –Initial Training					
Training Providers in business for 1 year	--	--	\$526	\$0	\$526
Training Providers in business for 4 years	--	--	\$142	\$0	\$142
Training Providers in business for 5 years	--	--	\$115	\$62	\$177
Training Providers in business for 8 years	--	--	\$75	\$41	\$116
Training Providers –Refresher Training					
Training Providers in business for 1 year	--	--	\$375	\$0	\$375
Training Providers in business for 4 years	--	--	\$101	\$0	\$101
Training Providers in business for 5 years	--	--	\$82	\$56	\$138
Training Providers in business for 8 years	--	--	\$53	\$37	\$90

EPA calculated separate cost-revenue ratios for residential, non-residential contractors and training providers, and within non-residential contractors EPA estimated separate cost-revenue estimates for non-residential contractors because of the difference in the average estimated revenues across these categories (Table 4-5)

Among the non-residential contractors, the public schools had the highest average revenue and Public and Commercial Building (PCB) landlords have the lowest average revenue. In fact, the revenue of PCB landlords was the smallest across all firms and training providers. Accordingly, the impact of the rule is the smallest for the public schools (ranging from low estimate of 0.0004 percent to high estimate of 0.002 percent) and highest for PCB landlords (ranging from 0.05 percent to 0.22 percent). Within each category, EPA examined the impact on four different types of firms and training providers ranging from low to high estimate. EPA estimates that PCB landlords that stayed in business for only one year after initial certification have a cost-revenue ratio of 0.22 percent. This is the highest cost-revenue ratio impact for any entity across all types of industries. Thus, EPA does not expect any significant impact of this rule on small firms.²⁶ The detailed cost-revenue ratio across all categories is provided in detail in Table 4-8 and Table 4-9.

²⁶ The tribes are charged a nominal fee of \$20 per firm and \$10 per individual certification, therefore the cost-revenue impact for tribes will incur even greater savings.

Table 4-8. Cost to Revenue Ratio for Small Firms by types of Entities (2007\$)

Entity Type	Total Annualized Cost	Average Small Entity Revenue	Cost-to-Revenue Ratio
Small Residential Contractors and Real Estate Industries			
Firms in business for 1 year	\$284	\$309,483	0.09%
Firms in business for 5 years	\$62	\$309,483	0.02%
Firms in business for 6 years	\$98	\$309,483	0.03%
Firms in business for 10 years	\$62	\$309,483	0.02%
Total Regulated Small Entities	164,545		
Public and Commercial Building Contractors			
Firms in business for 1 year	\$284	\$875,957	0.03%
Firms in business for 5 years	\$62	\$875,957	0.01%
Firms in business for 6 years	\$98	\$875,957	0.01%
Firms in business for 10 years	\$62	\$875,957	0.01%
Total Regulated Small Entities	3,111		
Public and Commercial Building Landlords			
Firms in business for 1 year	\$284	\$128,462	0.22%
Firms in business for 5 years	\$62	\$128,462	0.05%
Firms in business for 6 years	\$98	\$128,462	0.08%
Firms in business for 10 years	\$62	\$128,462	0.05%
Total Regulated Small Entities	12,007		
Center Daycare			
Firms in business for 1 year	\$284	\$292,629	0.10%
Firms in business for 5 years	\$62	\$292,629	0.02%
Firms in business for 6 years	\$98	\$292,629	0.03%
Firms in business for 10 years	\$62	\$292,629	0.02%
Total Regulated Small Entities	11,383		
Private School			
Firms in business for 1 year	\$284	\$1,015,686	0.03%
Firms in business for 5 years	\$62	\$1,015,686	0.01%
Firms in business for 6 years	\$98	\$1,015,686	0.01%
Firms in business for 10 years	\$62	\$1,015,686	0.01%
Total Regulated Small Entities	6,705		
Public School			
Firms in business for 1 year	\$284	\$16,997,060	0.002%
Firms in business for 5 years	\$62	\$16,997,060	0.0004%
Firms in business for 6 years	\$98	\$16,997,060	0.001%
Firms in business for 10 years	\$62	\$16,997,060	0.000%
Total Regulated Small Entities	7,050		
All Small Firms			
Firms in business for 1 year	\$284	\$904,147	0.031%
Firms in business for 5 years	\$62	\$904,147	0.007%
Firms in business for 6 years	\$98	\$904,147	0.011%
Firms in business for 10 years	\$62	\$904,147	0.007%
Total Regulated Small Entities	204,801		

Table 4-9. Cost-to-Revenue Ratio for Training Providers

	Total Annualized Cost	Average Small Entity Revenue	Cost-to-Revenue Ratio
Training Providers –Initial Training			
Training Providers in business for 1 year	\$526	\$859,547	0.061%
Training Providers in business for 4 years	\$142	\$859,547	0.016%
Training Providers in business for 5 years	\$177	\$859,547	0.021%
Training Providers in business for 8 years	\$116	\$859,547	0.013%
Training Providers –Refresher Training			
Training Providers in business for 1 year	\$375	\$859,547	0.044%
Training Providers in business for 4 years	\$101	\$859,547	0.012%
Training Providers in business for 5 years	\$138	\$859,547	0.016%
Training Providers in business for 8 years	\$90	\$859,547	0.010%
Total Regulated Small Entities		155	

EPA also estimated the aggregate small entity impact for small governments, non-profit organizations and small for-profit businesses (Table 4-10). EPA estimates that small for-profit businesses would have an average impact ranging from 0.007% to 0.221%, small non-profits would have an average impact ranging from 0.006% to 0.097% and 7,050 and small governments would have an average impact ranging from 0.0004% to 0.002%.

Table 4-10. Aggregate Small Entity Impacts

	Number of Small Entities Affected	Average Revenue	Annualized Fee	Cost Impact	
				Minimum	Maximum
Small Governments	7,050	\$16,997,060	\$62 - \$284	0.000%	0.002%
Non-Profit Organizations	18,088	\$292,629 - \$1,015,686	\$62 - \$284	0.006%	0.097%
Small For-Profit Businesses	179,818	\$93,196 - \$2,017,329	\$62 - \$526	0.007%	0.221%
Total	204,956	\$93,196 - \$16,997,060	\$62 - \$526	0.000%	0.221%

4.3. Conclusion

EPA estimates that small entities will not be adversely affected by the change in accreditation and certification fees for the Abatement rule because the rule is reducing in the fees for training providers, resulting in cost savings to the small entities. EPA estimates that firms will also not be adversely impacted: firms incur a 3 percent to 30 percent cost increase in the direct fee, and indirectly via fee increases for individuals (3 to 31 percent). In 1999 EPA had estimated that the highest cost-revenue ratio for firms was 0.87 percent. This implies that the cost-revenue impact of any increase in the fees less than the full amount of the original fees will be no more than 0.87 percent and will not be significant.

For the LRRP rule, EPA estimates that the small entities that are potentially directly regulated by this rule include: small for-profit businesses (including abatement and renovation contractors, environmental testing firms, and property owners and managers); small nonprofits (including day care centers, private schools, and advocacy groups); and small governments (local governments, school districts). EPA estimates that there are an average of 204,956 small entities that would be affected by this rule. Of these, there are an estimated 179,818 small businesses with an average impact ranging from 0.007% to 0.221%, 18,088 small non-profits with an average impact ranging from 0.006% to 0.097%, and 7,050 small governments with an average impact ranging from 0.0004% to 0.002%.

5. Sensitivity Analysis

The accuracy of the Abatement and LRRP fee level estimates presented in the previous chapters depends largely on the following factors:

- Cost inputs; and
- Key assumptions.

The data limitations related to cost inputs and key assumptions are described in Sections 2.4 and 3.4 for the Abatement Rule and LRRP Rule, respectively. This chapter examines the limitations to better understand their impact on the fee calculations for the Abatement Rule and the LRRP Rule. The findings of the sensitivity analysis indicate that the estimated fee levels are fairly robust with respect to the underlying methodology and most assumptions.

5.1. Abatement Rule

EPA conducted four sensitivity analyses for the Abatement Rule fee estimates based upon the limitations described in Section 2.4. These analyses are described in more detail below and include an assessment of:

1. Number of applications received and processed
2. Changes in regional and headquarters' enforcement costs
3. Changes in regional processing cost and time-motion study
4. Changes to assumption for "All Other Regions" in region administrative cost

5.1.1. Number of Applications Received and Processed

In estimating the fixed cost per application as described in Section 2.3, EPA used the number of applications that were "Sent to the Regions," according to the FLPP Database. While this estimate is applicable to the regional costs, it does not include all applications that are received by headquarters each year. A number of disapproved, returned and withdrawn applications are received by headquarters and not forwarded to the regions and this alternative estimates includes them in the estimates of the fixed cost per application for headquarters administrative and enforcement costs. Therefore, EPA estimated the sensitivity of the analysis to using a more inclusive estimate for the number of applications used in the calculation of fixed cost per application.

Table 5-1. Primary and Alternative Average Number of Applications and Fixed Cost per Application

	Primary Estimate	Alternative Estimate	Percent Change
Average Number of Annual Applications Processed by HQ (FY 2003-FY2006)	2,772	3,135	13%
Fixed Cost Per Application	\$396	\$351	-12%

Table 5-1 shows the increase in the average number of applications from 2,772 to 3,135 when including all the disapproved, returned and withdrawn applications processed by headquarters. By dividing the fixed cost separately according to the differing headquarters and regional estimated number of

applications, the fixed cost per application is reduced from \$396 to \$351 (-12%). As shown in Table 2-10, the regional and headquarters Administrative costs are 13 percent and 69 percent of the Total Cost to EPA, respectively, which indicates a potential to significantly impact the fee. Using the Option 2 method for estimating fees described in the economic analysis, this reduces the estimated fees by 12 to 15 percent for individual applicants and by 6 to 8 for training providers and firms. Table 5-2 summarizes the primary and alternative abatement fee estimates after adjusting the number of applications processed by headquarters, assuming fees are paid for all applications. The fees are generally lower under the alternative estimate compared with the primary estimate because both fixed and variable total costs to EPA are assumed to be unchanged, but the fixed costs are recouped from a larger pool of applicants under the alternative estimate. Note that some applications that were counted in this alternative estimate may receive returned fees, but this potential difference in cost is not reflected here.

Table 5-2. Primary and Alternative Abatement Fee Estimates after Adjusting Number of Applications Processed by Headquarters

Program	Primary Abatement Fee Estimate			Alternative Abatement Fee Estimate (Sensitivity Analysis)			Percent Change (Reduced Worker/Tribe Fee)
	Estimated Fee [A]	Revised Fee (Reduced Worker/Tribe) [B]	Difference [C]=[B]-[A]	Estimated Fee [A]	Revised Fee (Reduced Worker/Tribe) [B]	Difference [C]=[B]-[A]	
Training Program Accreditation							
Initial	\$727	\$870	\$143	\$681	\$801	\$121	-8%
Refresher	\$545	\$688	\$143	\$499	\$635	\$136	-8%
Training Program Reaccreditation							
Initial	\$478	\$621	\$143	\$432	\$582	\$150	-6%
Refresher	\$433	\$576	\$143	\$387	\$537	\$150	-7%
Firm Certification							
Initial	\$409	\$555	\$145	\$363	\$515	\$152	-7%
Recertification	\$412	\$557	\$145	\$366	\$517	\$152	-7%
Individual							
Individual Certification (Excluding workers)	\$412	\$414	\$2	\$366	\$366	\$0	-12%
Individual Certification - Workers Only	\$412	\$312	(\$100)	\$366	\$265	(\$101)	-15%
Individual Recertification (Excluding workers)	\$414	\$416	\$2	\$368	\$365	(\$3)	-12%
Individual Recertification - Workers Only	\$414	\$314	(\$100)	\$368	\$265	(\$102)	-15%

5.1.2. Regional and Headquarters Enforcement Costs

In estimating the regional and headquarters enforcement costs, EPA assumes that regional enforcement costs would vary depending upon the number of applications received in that region. However, discussions with regions suggested the enforcement costs may actually decrease if a region processes a larger number of applications, given funding limitations. The regions indicated that regional and headquarters enforcement is not based on number of applications or certifications, but on the time available after other processing activities are completed. Accordingly, EPA assumes the estimate for enforcement costs may understate the enforcement cost per application processed.

To test the sensitivity of the fees, EPA increased the regional and headquarter enforcement costs by 20 percent. Table 5-3 indicates the 20 percent increase on Regional and headquarter enforcement costs, as well as the impact on the fixed cost, which increased 3 percent (\$396 to \$408).

Table 5-3. Primary and Alternative Regional and Headquarters Enforcement Costs and Cost per Application

	Primary Estimate	Alternative Estimate	Percent Change
Headquarters Enforcement Cost	\$9,508	\$11,410	20%
Regional Enforcement Cost	\$152,761	\$183,313	20%
Fixed Cost	\$396	\$408	3%

Increasing the regional and headquarters enforcement costs by 20 percent has a relatively moderate impact on the fixed cost and the fee estimates, as shown in Table 5-4. The increase in the fees under the alternative estimate ranged from 1 to 4 percent. The moderate impact on the fixed cost and fee estimates can be explained by reviewing the percentage spread of all the regional and headquarters costs included in the total cost. As shown in Table 2-10 under the Abatement analysis (Section 2.2), the headquarters administrative cost accounts for 69 percent of the total cost, whereas regional and headquarters enforcement account for 13 percent and 1 percent, respectively.

Table 5-4. Primary and Alternative Abatement Fee Estimates – 20% Increase in Regional and Headquarters Enforcement Costs

Program	Primary Abatement Fee Estimate			Alternative Abatement Fee Estimate			Percent Change (Reduced Worker Fee)
	Estimated Fee [A]	Revised Fee (Reduced Worker/Tribe) [B]	Difference [C]=[B]-[A]	Estimated Fee [A]	Revised Fee (Reduced Worker/Tribe) [B]	Difference [C]=[B]-[A]	
Training Program Accreditation							
Initial	\$727	\$870	\$143	\$738	\$882	\$143	1%
Refresher	\$545	\$688	\$143	\$556	\$700	\$143	2%
Training Program Reaccreditation							
Initial	\$478	\$621	\$143	\$490	\$633	\$143	2%
Refresher	\$433	\$576	\$143	\$445	\$588	\$143	2%
Firm Certification							
Initial	\$409	\$555	\$145	\$421	\$566	\$146	2%
Recertification	\$412	\$557	\$145	\$423	\$569	\$146	2%
Individual							
Individual Certification (Excluding workers)	\$412	\$414	\$2	\$424	\$426	\$2	3%
Individual Certification - Workers Only	\$412	\$312	(\$100)	\$424	\$324	(\$100)	4%
Individual Recertification (Excluding workers)	\$414	\$416	\$2	\$425	\$427	\$2	3%
Individual Recertification - Workers Only	\$414	\$314	(\$100)	\$425	\$325	(\$100)	4%

5.1.3. Regional Processing Cost and Time-Motion Study

The primary analysis uses a hybrid of two methods to estimate EPA’s costs, one to estimate the level of effort for regional processing (Time-Motion Study) and the other to estimate all other regional and headquarter costs (Regional Interviews/Questionnaire). Originally, in estimating all processing, administration and enforcement costs, EPA included cost estimates from Regions 2, 4, and 9 based on interviews and a questionnaire. In the regional interviews, Regions 2, 4, and 9 estimated the amount of full-time equivalents (FTE) for employees that worked on processing, administering and enforcing the Abatement rule in 2006. Accordingly, this was considered a "top-down" approach. However, the “top-down” approach resulted in a significant overestimation for the processing time (number of hours spent) per application. EPA then conducted a Time-Motion study where regional staff tracked the amount of time spent processing each application for a month-long period. This method is considered a “bottom-up” approach. The Abatement analysis described in Section 2 utilizes the FTE estimates ("top-down" approach) for the regional and headquarters administration and enforcement costs, and utilizes the Time-Motion Study estimates ("bottom-up" approach) for the regional processing costs. As shown in Table 5-5, the regional processing cost differs significantly depending upon the method (FTE or Time-Motion Study).

Table 5-5. Time-Motion Study and FTE Method Estimates for Average Annual Regional Processing Costs

Program (All Disciplines)	Average Annual Processing Cost		% Difference
	Primary Estimate: Hybrid – FTE and Time-Motion Study Method (“Bottom up”)	Alternative Estimate: FTE Estimate Method (“Top-down”)	
Training Providers			
Initial Accreditation	\$5,778	\$41,228	614%
Initial Refresher Course	\$2,670	\$16,482	517%
Reaccreditation	\$5,390	\$102,405	1800%
Reaccreditation Refresher Course	\$2,129	\$34,734	1531%
Firms			
Firm Certification	\$3,530	\$75,654	2043%
Firm Recertification	\$2,691	\$50,476	1776%
Individuals			
Initial Certification	\$24,078	\$263,849	996%
Recertification	\$10,809	\$104,264	865%
TOTAL	\$57,074	\$689,090	1107%

Given the significant variance between the “bottom-up” and the “top-down” approaches, EPA assumed the Time-Motion Study would more likely underestimate the regional processing cost. As described in Section 2.2.1, the Time-Motion study included a sample size of only 386, of which 342 were processed by Region 2. Additionally, given the small number of training provider accreditations and re-accreditations completed during the study period, and the small number of accreditations and re-accreditations processed nationally each year, there is some uncertainty in the Time-Motion Study processing times used to estimate the these costs.

To test the sensitivity of the fees to the regional processing cost, EPA increased the average processing time across all application types by 20 percent. As shown in Table 5-6, an increase of 20 percent in the regional processing costs, results in fee increases from less than 1 percent to 8 percent. The fee increase is larger for training providers where the regional processing costs account for a larger share of the overall fee (relative to portion of the fee attributable to the fixed costs). Similar to the sensitivity analysis for regional and headquarter enforcement costs, the small impact on the fee estimates can be explained by reviewing the percentage spread of costs included in the total cost. As shown in Table 2-10 under the Abatement analysis section, the regional processing cost accounts for only 5 percent of the total cost to EPA. Thus an increase in 20 percent to the individual regional processing costs has a lesser impact on the total cost, and thus a minor impact on the fee.

Table 5-6. Primary and Alternative Abatement Fee Estimates – 20% Increase in Regional Processing Costs

Program	Primary Abatement Fee Estimate			Alternative Abatement Fee Estimate			Percent Change (Reduced Worker Fee)
	Estimated Fee [A]	Revised Fee (Reduced Worker/Tribe) [B]	Difference [C]=[B]-[A]	Estimated Fee [A]	Revised Fee (Reduced Worker/Tribe) [B]	Difference [C]=[B]-[A]	
Training Program Accreditation							
Initial	\$727	\$870	\$143	\$793	\$936	\$143	8%
Refresher	\$545	\$688	\$143	\$574	\$718	\$143	4%
Training Program Reaccreditation							
Initial	\$478	\$621	\$143	\$494	\$638	\$143	3%
Refresher	\$433	\$576	\$143	\$440	\$584	\$143	1%
Firm Certification							
Initial	\$409	\$555	\$145	\$412	\$557	\$146	0%
Recertification	\$412	\$557	\$145	\$415	\$560	\$146	1%
Individual							
Individual Certification (Excluding workers)	\$412	\$414	\$2	\$415	\$417	\$2	1%
Individual Certification - Workers Only	\$412	\$312	(\$100)	\$415	\$315	(\$100)	1%
Individual Recertification (Excluding workers)	\$414	\$416	\$2	\$417	\$419	\$2	1%
Individual Recertification - Workers Only	\$414	\$314	(\$100)	\$417	\$317	(\$100)	1%

5.1.4. Assumption for All Other Regions in Regional Administrative Cost

In the Abatement analysis in Section 2.2, EPA assumed the average administrative cost per application for Regions 4 and 9 is consistent with the regional administrative cost per application for all Other regions (1, 5, 6, 7, 8, 10), and multiplied this average cost per application by the average number of applications processed in the other regions. However, the difference between Region 2 and Regions 4 and 9 indicate that there are economies of scale associated with administering the program within each region, and thus in averaging cost per application, this method may underestimate the regional administrative cost.

To test the sensitivity of the fees, EPA assumed the average regional administrative cost per application for the “Other Regions” would be a higher end estimate of \$118 per application based on Region 9. For the primary estimates in this analysis, per application fees were based on the average between Regions 4 and 9 (\$106 per application), as shown in Table 5-7.

Table 5-7. Regional Administrative Cost per Application and Total Regional Administrative Cost

	Number of Applications FY 2006	Primary Estimate		Alternative Estimate		% Change
		Cost per Application	Total Cost	Cost per Application	Total Cost	
Region 2	1972	\$34	\$67,122	\$34	\$67,122	-
Region 4	210	\$95	\$19,932	\$95	\$19,932	-
Region 9	159	\$118	\$18,702	\$118	\$18,702	-
All Other Regions	431	\$106	\$45,776	\$118	\$50,666	11%
TOTAL ADMINISTRATIVE COST						
	2772		\$151,532		\$156,422	3%
TOTAL FIXED COST PER APPLICATION (Administrative and Enforcement)						
		\$396		\$398		0.4%

Setting the regional administrative cost for "All Other Regions" equal to Region 9 resulted in an increase in the fixed cost from \$396 to \$398 – a difference of less than one percent. Table 5-8 demonstrates the marginal impact on the fee from this revision. As determined in the previous sensitivity analyses for the Abatement fee estimates, the most significant contributor to the total cost to EPA is the headquarters administrative cost. The regional administrative cost accounts for 13 percent of the total cost to EPA, and therefore, this minor increase in the regional administrative cost has a smaller impact on the fixed cost and the fee.

Table 5-8. Primary and Alternative Abatement Fee Estimates – Sensitivity to Regional Administrative Cost Per Application

Program	Initial Abatement Fee Estimate			Revised Abatement Fee Estimate			Percent Change (Reduced Worker/Tribe Fee)
	Estimated Fee [A]	Revised Fee (Reduced Worker/Tribe) [B]	Difference [C]=[B]-[A]	Estimated Fee [A]	Revised Fee (Reduced Worker/Tribe) [B]	Difference [C]=[B]-[A]	
Training Program Accreditation							
Initial	\$727	\$870	\$143	\$728	\$872	\$143	0.2%
Refresher	\$545	\$688	\$143	\$547	\$690	\$143	0.3%
Training Program Reccreditation							
Initial	\$478	\$621	\$143	\$480	\$623	\$143	0.3%
Refresher	\$433	\$576	\$143	\$435	\$578	\$143	0.3%
Firm Certification							
Initial	\$409	\$555	\$145	\$411	\$556	\$146	0.3%
Recertification	\$412	\$557	\$145	\$413	\$559	\$146	0.3%
Individual							
Individual Certification (Excluding workers)	\$412	\$414	\$2	\$414	\$416	\$2	0.4%
Individual Certification - Workers Only	\$412	\$312	(\$100)	\$414	\$314	(\$100)	0.6%
Individual Recertification (Excluding workers)	\$414	\$416	\$2	\$415	\$417	\$2	0.4%
Individual Recertification - Workers Only	\$414	\$314	(\$100)	\$415	\$315	(\$100)	0.6%

5.2. LRRP Rule

EPA conducted three sensitivity analyses for the LRRP Rule fee estimates based upon the limitations described in Section 3.4. These analyses are described in more detail below and include an assessment of:

1. Number of applications received by headquarters
2. State authorized programs and impact on LRRP universe estimate
3. LRRP cost per application assumption for region processing cost, regional administrative cost, and headquarters contractor cost

5.2.1. Number of Applications Received by Headquarters

In estimating the headquarters administrative cost per application for the LRRP Rule, EPA assumed the average cost per application from the Abatement Rule would be consistent with the LRRP Rule for the Optimus Contract support costs. EPA estimated the Optimus Contract support costs by calculating the average cost per application for the Abatement Rule, and multiplying by the number of applications processed under the LRRP Rule across the first five years. However, similar to the sensitivity analysis for

the Abatement fee estimates, EPA used the number of applications that were "Sent to the Regions" to calculate this value, which does not include a number of disapproved, returned and withdrawn applications received by headquarters and not forwarded to the regions.

To test the sensitivity of the LRRP fees, EPA increased the number of applications from 2,772 to 3,135 in the calculation of the headquarters administrative cost for the Optimus Contract. As shown in Table 5-9, given that the number of applications "Received by Headquarters" (3,135) is larger than the number of applications "Sent to the Regions," (2,772) the average cost per application decreases for the LRRP Rule.

Table 5-9. Average Headquarters Administrative Cost for the Optimus Contract

	Primary Abatement Rule Estimate	Alternative Abatement Rule Estimate	% Change
Number of Applications under Abatement Rule	2,772	3,215	13%
HQ Administrative Optimus Contract Cost per Application	\$210	\$186	-12%

The decrease in the Optimus Contract cost per application by 12 percent, in turn reduces the fee from between 4 and 7 percent, as shown in Table 5-10. Because 212,057 applications are estimated in the first year of the LRRP estimates, the Optimus Contract costs, which are on a per application basis, represent 99.8 percent of the total headquarters administrative costs. Similar to the Abatement rule fee estimates, the headquarters administrative cost represents a significant proportion of the total cost to EPA (72%). Therefore, the change in headquarters administrative cost per application for the Optimus Contract has a proportional impact on the fee associated with its percent of total cost. This change lowered the fixed cost per application from \$282 to \$262 for all application types and decreased the fee by 4 to 7 percent depending on the proportion of the fixed cost to the total cost per application.

Table 5-10. Primary and Alternative LRRP Fee Estimates – Adjusted Number of Headquarters Applications

Application Type	Primary Fee Estimate (LRRP)	Alternative Fee Estimate (LRRP)	Percent Change
Training Program Accreditation			
Initial Accreditation	\$558	\$539	-4%
Initial Refresher	\$398	\$378	-5%
Training Program RE-accreditation			
Re-accreditation	\$340	\$320	-6%
Re-accreditation Refresher	\$306	\$286	-6%
Firm Certification			
Initial Certification	\$301	\$282	-7%
Recertification	\$302	\$282	-7%

5.2.2.State Authorized Programs and Impact on LRRP Universe Estimate

In the current analysis, EPA assumes that the EPA-administered universe will include all states, Tribes and territories. Under the Abatement Rule, however, thirty-nine States are authorized to administer and

enforce their own programs. EPA does not process, administer or enforce applications in States, Tribes, or territories that have State-authorized programs.

To test the sensitivity of the fees to State authorization projections, EPA assumed that the thirty-nine states authorized under the Abatement Rule would also seek authorization to implement the LRRP program. While the size of the total universe for training providers and firms (the “stock”) would remain unchanged, this assumption would decrease the size of the EPA-administered universe. EPA developed an adjustment factor to estimate the percentage of the LRRP Universe in the eleven EPA-administered States²⁷ based upon U.S. Census Bureau population estimates for each state.²⁸ Using the U.S. Census Bureau data, EPA found the percent of the population that resides in the eleven EPA-administered States and multiplied this factor by the primary LRRP universe estimates to calculate the alternative estimated number of applications in Table 5-11. Thus, the LRRP universe estimates are substantially reduced under this alternative estimate.

Table 5-11. Primary and Alternative Number of Applications per Year – Adjusted for State-Authorized Programs

Year	1	2	3	4	5	TOTAL
Primary Estimate for Number of Applications	212,057	72,290	71,993	71,698	71,404	499,442
Alternative Estimate for Number of Applications¹	40,279	13,731	13,675	13,618	13,563	94,865
Percent Change (%)	81%	81%	81%	81%	81%	81%
1 Reduction based on census data of US population in EPA authorized states versus non-authorized states.						

As shown in Table 5-12, adjusting the universe of applications results in an increase in fees ranging from 13 to 24 percent. The fixed cost component of fee increases under this alternative. Therefore, those applications where the fixed cost component accounts for a larger share of the total fee see the largest fee increases.

²⁷ The eleven EPA-administered states are Alaska, Arizona, Florida, Idaho, Montana, Nevada, New Mexico, New York, South Carolina, South Dakota, Wyoming.

²⁸ U.S. Census Bureau, 2007 Population Estimates, United States – States; and Puerto Rico, GCT-T1.(July 1, 2007) <http://factfinder.census.gov/servlet/GCTTable?_bm=y&-geo_id=01000US&-_box_head_nbr=GCT-T1&-ds_name=PEP_2007_EST&-_lang=en&-format=US-9&-_sse=on> Viewed on July 11, 2008.

Table 5-12. Primary and Alternative LRRP Fee Estimates – Adjustment to LRRP Universe for State-Authorized Programs

Application Type	Primary Fee Estimate (LRRP)	Alternative Fee Estimate (LRRP)	Percent Change
Training Program Accreditation			
Initial Accreditation	\$558	\$630	13%
Initial Refresher	\$398	\$469	18%
Training Program RE-accreditation			
Re-accreditation	\$340	\$411	21%
Re-accreditation Refresher	\$306	\$377	23%
Firm Certification			
Initial Certification	\$301	\$373	24%
Recertification	\$302	\$374	24%

5.2.3.LRRP Cost Per Application Assumption for Regional Processing Cost, Regional Administrative Cost, and HQ Contractor Cost

The estimated number of training provider and firm applications for the LRRP Rule is 212,057, which is significantly higher than the annual average of 2,772 applications (including individuals) for the Abatement Rule. EPA found efficiencies related to economies of scale when estimating the regional processing cost per application between Region 2, which processes 72 percent of the annual average number of applications, and Regions 4 and 9. In the LRRP fees analysis, however, EPA assumed the costs per application were consistent with the Abatement Rule estimates for three calculations: (i) Regional Processing, (ii) Regional Administrative, and (iii) Headquarters Administrative (Optimus Contract cost). Therefore, in this sensitivity analysis, EPA assumes the large number of applications under the LRRP Rule would have an impact on the processing cost per application and administrative costs per application due to economies of scale. Given the larger universe of applications, the costs per application would be lower under the LRRP rule than for the Abatement Rule.

To test the sensitivity of the LRRP fee estimates, EPA decreased the regional processing, regional administrative, and headquarters administrative (Optimus Contract) costs per application by 20 percent from the estimates used from the Abatement fee analysis. Table 5-13 shows the adjusted LRRP fee estimates and percent change for each of the three cost per application changes (regional processing, regional administrative, headquarters administrative – Optimus Contract), as well as the adjusted fee estimates and an estimate of the total reduction in fee for all three reductions combined.

Table 5-13. Primary and Alternative LRRP Fees for Adjustment from Abatement Rule Per Application Costs

Application Type	Primary Fee Estimate (LRRP)	Adjusted Fee Estimate (LRRP)						Alternative Fee Estimate (LRRP) ALL	% Change
		Reg. Process Only	% Change	Reg. Admin Only	% Change	HQ Admin Only	% Change		
Training Program Accreditation									
Initial Accreditation	\$558	\$503	-10%	\$548	-2%	\$516	-8%	\$450	-19%
Initial Refresher	\$398	\$375	-6%	\$387	-3%	\$355	-11%	\$321	-19%
Training Program RE-accreditation									
Re-accreditation	\$340	\$328	-3%	\$329	-3%	\$298	-12%	\$275	-19%
Re-accreditation Refresher	\$306	\$301	-2%	\$295	-4%	\$264	-14%	\$248	-19%
Firm Certification									
Initial Certification	\$301	\$298	-1%	\$289	-4%	\$257	-14%	\$246	-19%
Recertification	\$302	\$298	-1%	\$290	-4%	\$258	-14%	\$246	-19%

As in to previous sensitivity analyses, the headquarters administrative cost adjustment had the most significant impact overall on the combined adjusted fee. The regional processing cost adjustment accounted for the most substantial change in the Initial Accreditation fee (10 percent reduction), whereas the headquarters administrative cost adjustment accounted for 8 percent of the total change. The headquarters administrative cost adjustment reduced the fixed cost per application by \$42. Similar to the headquarters administrative cost adjustment, the regional administrative cost adjustment reduced the fixed cost per application by \$11 and had a minor impact on the reduced fee of 2 to 4 percent. Therefore, EPA concludes the fee is robust in relation to changes in the regional administrative cost.

The regional processing cost adjustment resulted in a decrease in fees ranging from 1 to 10 percent. Unlike the headquarters costs and regional administrative and enforcement costs, which are included in the fixed cost per application, the regional processing cost per application is dependent upon the number of applications of that type processed each year, as well as the initial cost per application. The alternative regional processing cost had a larger impact on the fees for applications where the regional processing cost component of the fee accounts for a larger share of the total fee. The regional processing cost share of the total fee is smallest for initial firm applicants (4 percent) and largest for initial training provider applicants (50 percent).

5.3. Small Entity Impact

As discussed in Chapter 4, the average revenue estimates used in the analysis were calculated using the economic census data for the relevant NAICS code. Census data provides total revenue and number of establishments by revenue size bracket for each industry group. Average revenues used in this analysis were calculated as the average across revenue size brackets, weighted by the number of establishments in each bracket. Since the SBREFA analysis is primarily concerned with the entities that have lowest revenues within a category, the average revenue for a category is the upper bound on the average revenue estimates for entities within that group that have low revenues. Consequently, the cost-revenue ratio is a low estimate of the impact on the smallest entities within each group: the maximum estimated cost impact of the rule on small businesses is relatively low, at 0.22 percent (see Chapter 4). To account for this, the

sensitivity analysis estimates the reduction in average revenue from the estimated average revenue that would imply a cost-revenue impact of one percent.

Table 5-14 presents the differences in revenue between the average revenues used in the main SBREFA analysis and the revenues at which the cost-revenue ratio would be one percent. Revenue differences are only presented for firms and training providers that are in business for one year since this represents the group with the highest cost-revenue impact. As shown in Table 5-14, average revenues would need to be significantly smaller to attain cost impacts of one percent for all entity types; the decrease in revenue ranges from 78 percent to almost 100 percent. The extent of decrease is the smallest for PCB landlords (78 percent). In other words, PCB landlords with average revenue of \$28,415 ($=\$128,462 - \$100,047$) would have a cost-revenue impact of one percent. It is unlikely that there are any PCB landlords with such small average annual revenue.

Table 5-14. Revenue Decrease Required to Attain Cost Impact of One Percent

	Average Revenue, 2007\$	Decrease Required to Attain 1% Impact	Decrease, As Percent of Revenue
LRRP Firms, Small Governments, and Non-Profit Organizations			
Residential Contractors/Landlords	\$309,483	\$281,068	91%
PCB Contractors	\$875,957	\$847,542	97%
PCB Landlords	\$128,462	\$100,047	78%
Center Daycare	\$292,629	\$264,214	90%
Private Schools	\$1,015,686	\$987,271	97%
Public Schools	\$16,997,060	\$16,968,646	99.8%
All Small Firms, Weighted Revenue	\$904,147	\$875,732	97%
Small Training Providers			
Initial Training Course	\$859,547	\$806,906	94%
Refresher Training Course	\$859,547	\$822,043	96%

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Appendix A. Alternative Fee Schedule Options: Lower Government and Lower Small LRRP Firm Fees:

A.1. Alternative Abatement Fee Schedules

Table A-1 presents an additional option, Option A1, which is the same as the preferred Option 2, except state and local government firm and individual certification fees are reduced to \$200. To make up for the lower revenue due to the reduced government fees, the standard fees for firms and individuals are higher under this option. Based on the FLPP data it is estimated that 2.77% and 13.86% of firm and individual applications, respectively, will be local governments. State governments are estimated to account for 0.16% and 0.73% of firm and individual applications, respectively. Thus, all government applications are estimated to account for 2.93% and 14.59% of firm and individual applications.

Table A-1: Alternative Abatement Fee Schedule with Reduced Fees for Government Firms and Individuals

Program	Option 1	Option 2 (preferred)	Option A1 (Option 2 plus Government Firms and Individual Fees Reduced to \$200)
Training Program Accreditation			
Initial	\$727	\$870	\$870
Refresher	\$545	\$688	\$688
Training Program Reccreditation			
Initial	\$478	\$621	\$621
Refresher	\$433	\$576	\$576
Firm Certification			
Initial	\$409	\$555	\$594
Recertification	\$412	\$557	\$596
Individual			
Initial (Same fee for Workers and Others)	\$412		
Recertification (Same fee for Workers and Others)	\$414		
Individual Certification (Excluding workers)		\$414	\$453
Individual Certification - Workers Only		\$312	\$312
Individual Recertification (Excluding workers)		\$416	\$455
Individual Recertification - Workers Only		\$314	\$314
Tribal Firms and Individuals			
Firm Initial and Recertification		\$20	\$20
Individual Initial and Recertification		\$10	\$10
Government Firms and Individuals			
Firm Initial and Recertification			\$200
Individual Initial and Recertification			\$200

A.2. Alternative LRRP Fee Schedules

Table A-2 presents two additional options: (1) Option A1, which is the same as the preferred option, except state and local government firm certification fees are reduced to \$150, and (2) Option A2, which is the same as the preferred option, except certification fees are reduced to \$100 for firms with annual revenues that are less than \$25,000. To make up for the lower revenue due to the reduced fees under these options, the standard fees for firms and individuals are higher.

Based on the FLPP data on Abatement certifications it is estimated that 2.77% and 0.16% of firm applications will be from local and state governments, respectively. Thus, all government applications are estimated to account for 2.93% of firm applications.

It was estimated that 27.81% of firms applying for certification have annual revenues that are less than \$25,000. See Appendix F for a detailed description of how the number of firms with annual revenues less than \$25,000 was estimated.

Table A-2. Alternative LRRP Fee Schedules with Reduced Fees for Government Firms and Individuals and Firms with Annual Revenues less than \$25,000

Application	Preferred Option	Option A1 (Preferred Option plus Government Firm Fees Reduced to \$150)	Option A2 (Preferred Option plus Reduced Fees for Firms w/ Revenues Below \$25,000)
Training Program Accreditation			
Initial	\$558	\$558	\$558
Refresher	\$398	\$398	\$398
Training Program Reaccreditation			
Initial	\$340	\$340	\$340
Refresher	\$306	\$306	\$306
Firm Certification			
Initial	\$301	\$306	\$379
Recertification	\$302	\$307	\$380
Tribal Firm Certification			
Initial and Recertification	\$20	\$20	\$20
Government Firm Certification			
Initial and Recertification		\$150	
Firm with Revenue Below \$25,000 Certification			
Initial and Recertification			\$100

Appendix B. Total Number of Applications by Type of Application and Number of Regions for FY2003-FY2006

Type of Application	Number of Regions									
	0	1	2	3	4	5	6	7	8	9
Training Program Accreditation	0	69	12	0	0	0	3	0	0	0
Inspector	0	11	3	0	0	0	1	0	0	0
Risk Assessor	0	11	3	0	0	0	1	0	0	0
Supervisor	0	15	3	0	0	0	1	0	0	0
Worker	0	32	3	0	0	0	0	0	0	0
Project Designer	0	0	0	0	0	0	0	0	0	0
Refresher Training Program Accreditation	0	70	14	0	0	0	6	0	0	0
Inspector	0	12	4	0	0	0	4	0	0	0
Risk Assessor	0	12	4	0	0	0	1	0	0	0
Supervisor	0	17	3	0	0	0	1	0	0	0
Worker	0	28	3	0	0	0	0	0	0	0
Project Designer	0	1	0	0	0	0	0	0	0	0
Training Program RE-accreditation	2	224	45	7	4	0	4	0	0	0
Inspector	0	43	10	2	1	0	1	0	0	0
Risk Assessor	0	42	10	2	1	0	1	0	0	0
Supervisor	1	62	12	2	1	0	1	0	0	0
Worker	1	77	13	1	1	0	1	0	0	0
Project Designer	0	0	0	0	0	0	0	0	0	0
Refresher Training Program Re-accreditation	2	231	44	2	4	0	5	0	0	0
Inspector	0	42	9	1	1	0	1	0	0	0
Risk Assessor	0	41	9	1	1	0	1	0	0	0
Supervisor	1	59	12	0	1	0	1	0	0	0
Worker	1	72	11	0	1	0	1	0	0	0
Project Designer	0	17	3	0	0	0	1	0	0	0
Firm Certification	6	2120	64	14	5	0	0	0	1	0
Firm Certification	5	1278	33	2	1	0	0	0	1	0
Firm Certification Extension	1	842	31	12	4	0	0	0	0	0
Individual Certification	41	4887	77	14	0	0	0	0	0	1
Inspector	4	1146	13	1	0	0	0	0	0	0
Risk Assessor	11	1231	39	7	0	0	0	0	0	0
Supervisor	21	1362	12	2	0	0	0	0	0	1
Worker	4	1146	13	4	0	0	0	0	0	0
Project Designer	1	2	0	0	0	0	0	0	0	0
Individual RE-certification	10	3224	85	24	5	2	0	0	0	0
Inspector	1	270	4	0	1	0	0	0	0	0
Risk Assessor	4	1391	35	20	4	2	0	0	0	0
Supervisor	3	777	22	1	0	0	0	0	0	0
Worker	1	754	22	2	0	0	0	0	0	0
Project Designer	1	32	2	1	0	0	0	0	0	0
TOTAL FY2003-FY2006 (without Amendments)	61	10,825	341	61	18	2	18	-	1	1

Appendix C. Regions 2, 4 and 9 Time-Motion Study - Oct-Nov 2007

All calculated times below are minutes or hours per application																	
Application Type	Certification/ Re-certification	Discipline					REGION 2			REGION 4			REGION 9			REGION 2	REGION 4 and 9 ²
		Worker	Inspector	Project Designer	Risk Assessor	Supervisor	<i>Number of Applications (Completed)</i>	<i>Processing Time per Application (Minutes)</i>	<i>Processing Time per Application (Hours)</i>	<i>Number of Applications (Completed)</i>	<i>Processing Time per Application (Minutes)</i>	<i>Processing Time per Application (Hours)</i>	<i>Number of Applications (Completed)</i>	<i>Processing Time per Application (Minutes)</i>	<i>Processing Time per Application (Hours)</i>	<i>Processing Time for Applications in Region 2 (Hours/Application)</i>	<i>WEIGHTED AVERAGE Processing Time for Applications in Region 4 and 9 (Hours/Application)</i>
Firm	Initial						27	25	0.4				3	88	1.5	0.4	1.5
Firm	Recertification						22	26	0.4				4	80	1.3	0.4	1.3
Individual	Initial	x						32	0.5					85	1.4	0.5	1.8
Individual	Initial		x					28	0.5	95	1.6				0.5		
Individual	Initial			x				32	0.5	110	1.8		120	2	0.5		
Individual	Initial				x			33	0.6	110	1.8		120	2	0.6		
Average ¹ :							131	31	1	6	105	2	8	108	2	0.5	
Individual	Recertification	x						38	0.5		70	1.2		86	1.4	0.5	1.4
Individual	Recertification		x					34	0.5	85	1.4		85	1.4	0.5		
Individual	Recertification			x				31	0.5				85	1.4	0.5		
Individual	Recertification				x			36	0.5				83	1.4	0.5		
Average ¹ :							156	35	1	3	78	1	11	85	1	0.5	
Individual	Disapproval		x	x	x		5	54	0.6				3	105	1.8	0.6	1.8
Individual	Reciprocity				x		1	69	0.6				2	88	1.5	0.6	1.5
Training Provider	Accreditation	x	x		x	x		-	-				3	1566	26.1	8.5	26.1
Training Provider	Reaccreditation	x	x	x		x	1	89	1.5					0	0.0	1.5	4.5

¹ Individual estimates for processing time per application were separated by discipline, but no significant difference was found in the processing time between disciplines. The Lead Fees Analysis, therefore, uses the averaged values for processing time of individual applications.

² Regions 4 and 9 are averaged to estimate the processing time estimate for all other regions.

All regions submitted data detailed to the application type, certification/re-certification and discipline. Region 4 provided an average for the time spent on their set of activities for the 9 individual applications they received. Regions 2 and 9 provided the processing time for each activity on an application basis. Region 9 included all processing time for each individual application on each data log sheets. Region 2 differentiated between the individual application processing time (e.g. application verification) and the “batch” processing activities (e.g. printing badges or certificates), during which the regional staff would perform a clerical activity for a set of applications. Processing time for batch process activities were reported in aggregated form, averaged for each application and then added to the individual application processing time.

Appendix D. EPA Labor Rates

EPA used the following labor rates for SEE and EPA staff to estimate the cost per application. EPA assumed an overhead rate of 160 percent when calculating the loaded rate.

Senior Environmental Employee (SEE) Wage Level

Position Level	Entry Wage	Maximum For Wage Level	Midpoint Wage, Unloaded	Midpoint Wage, Loaded
Level I – Clerical/Non-Typing	\$6.92	\$9.23	\$8.08	\$12.92
Messenger				
Receptionist				
Filing Clerk				
Copy Machine Operator				
Level II – Clerical/Typing	\$8.36	\$11.53	\$9.95	\$15.91
Clerk-typist				
Administrative Assistant				
Secretary				
Level III – Technical (Non-degree)	\$9.80	\$13.25	\$11.53	\$18.44
Writer-Editor				
Technical researcher				
Administrative Specialist				
Level IV – Professional (Degree)	\$12.11	\$17.29	\$14.70	\$23.52
Engineer				
Scientist				
Web Master				

Source: National Asian Pacific Center on Aging (<http://www.napca.org/default.aspx?tabid=79>), downloaded 1/30/2008

EPA Wage Level

Labor Rates	Level	1999 Hourly Rate	2008 Hourly Rate	Loaded Wage	Annual, Loaded ¹
Clerical	GS-6, Step 1	\$11.00	\$14.03	\$22.45	\$46,692
Technical	GS-11, Step 1	\$18.08	\$23.07	\$36.91	\$76,777
Technical	GS-12, Step 2	\$22.40	\$28.57	\$45.71	\$95,081
Managerial	GS-13, Step 1	\$25.78	\$32.88	\$52.61	\$109,425
<i>Average:</i>		19.315	24.6375		
<i>Percent Increase in Wage from 1999 to 2008:</i>			27.6%		

¹ Assumes 2,080 hours per year for a full-time employee.
Source: Office of Personnel Management Wage Tables, 2008 General Schedules, (http://www.opm.gov/oca/08tables/pdf/g_s_h.pdf)

Appendix E. Regional Responses to Administrative and Enforcement Cost Questions

Administrative and enforcement cost data were gathered for Regions 2, 4, and 9 for this analysis. The table below outlines the data as received from the regions.

Application Types	Employee Level				
	SEE Clerical	SEE Technical	EPA Clerical	EPA Technical	EPA Managerial
Region 2: Number of Hours Spent on Administrative Activities					
Number of hours spent in 2006	1.75 FTE (unspecified)				
Region 2: Number of Hours Spent on Enforcement Activities					
Number of hours spent in 2006				1 FTE	
Region 4: Number of Hours Spent on Administrative Activities					
Number of hours spent in 2006		0		540	
Number of hours spent in 2005		0		546	
Number of hours spent in 2004					
Region 4: Number of Hours Spent on Enforcement Activities					
Number of hours spent in 2006		48 hours**		0	
Number of hours spent in 2005		96 hours**		0	
Number of hours spent in 2004					
Region 9: Number of Hours Spent on Administrative Activities					
Number of hours spent in 2006	0	800 (2SEEs)	0	50	40
Number of hours spent in 2005	0	400 (2SEEs)	0	100	50
Number of hours spent in 2004	0	400 (2SEEs)	0	20	40
Region 9: Number of Hours Spent on Enforcement Activities					
Number of hours spent in 2006	0	828 (1 SEE)	0	20	40
Number of hours spent in 2005	0	1130 (1SEE)	0	40	60
Number of hours spent in 2004	0	1030 (1 SEE)	0	40	50

Appendix F. Estimation of Number of LRRP Firms with Annual Revenues of less than \$25,000

Data from the 2002 U.S. Census of Construction form the basis for EPA's estimates of the number of LRRP firms that will be affected by the LRRP rule. For establishments with employees, the Census publishes data on the number of establishments in various revenue brackets. For non-employer establishments (i.e. firms without employees), however, the Census only publishes their average revenue, by NAICS category.

Periodically, Harvard University's Joint Center for Housing publishes a report on the renovation industry. In their latest report: *Foundations for Future Growth in the Remodeling Industry*, they published estimates of the number of non-employer remodeling firms by revenue bracket for firms with revenues above \$25,000. They argue that renovators making less than \$25,000/year are only part-time operations and thus are not included in their analysis. They do estimate, however, that in 2002 there were approximately 330,000 non-employer residential remodeling firms with annual revenues of \$25,000 or more, and approximately 383,000 non-payroll residential remodeling firms with annual revenues of less than \$25,000.²⁹

The Joint Center for Housing estimates cannot be used directly for two reasons:

- Some of the contractor categories they include are not included in the EPA estimates because these categories are not involved in operations that are likely to disturb lead-based paint, roofers for example.
- Even among the contractor categories whose activities are of a nature that might disturb lead-based paint, if they are working in homes or COFs that do not have lead-based paint (e.g. are built after 1978), they do not need to be certified.

Thus EPA made the following adjustments in estimating the number of regulated non-employer establishments in the above and below \$25K categories:

- Remove from the Joint Center list any specialty contractors not included (e.g. concrete and structural steel). Adjust their estimate of less than \$25K non-payroll firms in the same proportion. Calculate a revised total number of non-payroll firms.
- Calculate the ratio of EPA total non-employer firms to the revised non-payroll firms for general renovation, and for specialty contractors.
- Apply this percentage to their estimates of total firms with annual revenues of \$25K or more – treating general building contractor as one category and summing the specialty firms for a second category.
- Subtract the resulting estimates from the EPA totals to get the number of non-payroll firms with revenues of less than \$25K in each of these two categories.

²⁹ *Foundations for Future Growth in the Remodeling Industry*, 2007, Joint Center for Housing Studies of Harvard University, Appendix A-8, page 34.

See following tables for estimates of contracting firms and for various property owners and managers. There are no non-payroll firms in the property owners and managers categories – so the Census data can be used directly for them.

Table F-1. Estimation of Non Employers with Revenues of Less Than \$25,000

Small Employer and Non-Employer Firms						
Industry	Employer Firms*		Non-Employer Firms**		Total, All Firms	
	Total	Less than \$25k	Total	Less than \$25k	Total	Less than \$25k
General Remodelers	13,395	51	31,519	10,727	44,915	10,778
Specialty Remodelers	25,881	444	73,193	40,035	99,074	40,479
Lessors and Property Managers	35,674	1,181	N/A	N/A	35,674	1,181
Training Providers	157	4	N/A	N/A	157	4

* EA LRRP rule

** Based on Joint Center data – see following tables.

Table F-2. Ratio of EPA LRRP Non-Employer Data to Joint Center Non-Employer Data

	Total Non Employer Remodelers	>25k	<25k
JCHS Data	640,672	296,567	344,105
EPA data on LRRP	104,712		
Ratio	16%		

Table F-3. JCHS Data

	Total	NAICS Match	Included in Estimate
General Building Contractors	127,216	236118	Yes
Special Trade Contractors	202,873		
Concrete and Structural Steel	2,874		
Framing	3,895		
Masonry	5,072		
Building Exterior, Glazing and Foundation	2,400	238150	Yes
Roofing	12,315		
Siding	8,716	238170	Yes
Plumbing, HVAC and Electrical	38,503	238220	Yes
Drywall and Insulation	4,875	238310	Yes
Painting	44,087	238320	Yes
Flooring, Tile and Other			
Finishing	33,950	238390	Yes
Finish Carpentry	36,820	238350	Yes
Site Prep and Other	9,366		
Total	330,089		

Table F-4. Number of Joint Center Non-Employer Establishments Regulated under the LRRP rule

Adjusted by Ratio	
General Building Contractors	20,792
Special Trade Contractors	33,158

Source: Joint Center for Housing Studies of Harvard University. 2007. *Foundations for Future Growth in the Remodeling Industry*. Appendix A-8, page 34.