

**ARKANSAS POLLUTION CONTROL & ECOLOGY
COMMISSION
ECONOMIC IMPACT/ENVIRONMENTAL BENEFIT
ANALYSIS**

Rule Number & Title: Regulation No. 21, Arkansas Asbestos Abatement Regulation

Petitioner: Arkansas Department of Environmental Quality (ADEQ)

Contact/Phone/Electronic mail: Mike Porta, (501) 682-0752, porta@adeq.state.ar.us

Analysis Prepared by: Mike Porta

Date Analysis Prepared: December 2009

2A. ECONOMIC IMPACT

1. Who will be affected economically by this proposed rule?

State: a) the specific public and/or private entities affected by this rulemaking, indicating for each category if it is a positive or negative economic effect; and b) provide the estimated number of entities affected by this proposed rule.

The additional air monitoring requirements will (negatively) directly affect licensed asbestos abatement firms and will indirectly affect their clients. There are currently 105 licensed asbestos contractors and/or consultants.

The proposed rule will require individuals seeking certification in asbestos disciplines to submit a photograph (print or digital image) of themselves or come to the Department's offices during normal business hours and have one taken free of charge. The proposed rule will also reduce the fees associated with these certifications by 25%. These changes will impact (positively) all certified individuals. There are currently 733 individuals with certifications.

The proposed regulation will mandate training providers comply with certain reporting requirements. Specifically it will require they notify the Department in advance of all classes and submit information to the Department within 10 days of class completion. The proposed rule will also reduce training provider licensing fees by 25%. These changes will have a slight negative impact on all licensed training providers. There are currently 11 licensed training providers in Arkansas.

Sources and Assumptions:

The source for number of licensed asbestos contractors and/or consultants is the ADEQ asbestos licensing database.

The source for number of certified individuals is the ADEQ asbestos licensing database.

The source for the number of licensed training providers is the ADEQ asbestos licensing database.

2. What are the economic effects of the proposed rule? State: 1) the estimated increased or decreased cost for an average facility to implement the proposed rule; and 2) the estimated total cost to implement the rule.

The monitoring requirements will have a total average annual economic impact of \$873,000 per year. This cost per renovation will vary with the length of job. Please see the attached appendix for more information.

Sources and Assumptions:

Please see the attached appendix for detailed sources and assumptions.

3. List any fee changes imposed by this proposal and justification for each.

This proposed regulation will reduce most asbestos related fee by 25%. The following table shows the current and the proposed fees

| License Fees for Firms | | |
|-------------------------------|-------------|--------------|
| License Type | Current Fee | Proposed Fee |
| Asbestos abatement consultant | \$500 | \$375 |
| Asbestos abatement contractor | \$500 | \$375 |
| Training provider | \$500 | \$375 |

| Certification Fees for Individuals | | |
|------------------------------------|-------------|--------------|
| Certification Type ¹ | Current Fee | Proposed Fee |
| Air Monitor ¹ | \$150 | \$112.50 |
| Contractor/Supervisor ¹ | \$150 | \$112.50 |
| Inspector ¹ | \$150 | \$112.50 |
| Management Planner ¹ | \$150 | \$112.50 |

¹ Currently an individual with two or more certificates, excluding worker, will pay \$150 for the first certificate and \$75 for each additional certificate issued at the same time. Under the proposed revision the 50% discount for additional certificates will apply if they are issued within the same 12 month period.

| | | |
|------------------------------------|-----------|-----------|
| Project Designer ¹ | \$150 | \$112.50 |
| Worker | \$35 | \$26.40 |
| Replacement certificate or license | \$15 | \$15 |
| 36 hour processing | \$50 each | \$50 each |

| Notice of Intent Fees | | |
|--|--------------|--------------|
| Notice of Intent Type | Existing fee | Proposed Fee |
| Demolition involving not more than 1 square or linear foot of ACM | \$0 | \$0 |
| Demolition involving more than 1 ft ² or linear foot of ACM but less than 160 ft ² or 260 linear feet of ACM | \$100 | \$75 |
| Demolition involving more than 160 ft ² or 260 linear feet of RACM but not more than 5,000 ft ² or linear feet of RACM | \$300 | \$225 |
| Demolition involving more than 5,000 ft ² or linear feet of RACM but not more than 10,000 ft ² or linear feet of RACM | \$500 | \$375 |
| Demolition involving more than 10,000 ft ² or linear feet of RACM | \$1,000 | \$750 |
| Renovation involving more than 160 ft ² or 260 linear feet of RACM but not more than 5,000 ft ² or linear feet of RACM | \$300 | \$225 |
| Renovation involving more than 5,000 ft ² or linear feet of ACM but not more than 10,000 ft ² or linear feet of ACM | \$500 | \$375 |
| Renovation involving more than 10,000 ft ² or linear feet of RACM | \$1,000 | \$750 |
| Annual NOI | \$1,500 | \$1,125 |
| NOI Revision | \$50 | \$50 |
| Emergency NOI | \$300 | \$225 |

4. What is the probable cost to ADEQ in manpower and associated resources to implement and enforce this proposed change, and what is the source of revenue supporting this proposed rule?

The proposed regulation revisions will not result in any increase cost to ADEQ in manpower and associated resources.

5. Is there a known beneficial or adverse impact to any other relevant state agency to implement or enforce this proposed rule? Is there any other relevant state agency's rule that could adequately address this issue, or is this proposed rulemaking in conflict with or have any nexus to any other relevant state agency's rule? Identify state agency and/or rule.

There are no known beneficial or adverse impacts to any other state agencies. There is no known other state agency's rule that could address this issue. This proposed rule revision will not conflict with or have nexus to any other state agency's rule.

Sources and Assumptions:

6. Are there any less costly, non-regulatory, or less intrusive methods that would achieve the same purpose of this proposed rule?

There are no known less costly, non-regulatory, or less intrusive methods that would achieve the same purpose of this proposed rule.

Sources and Assumptions:

2B. ENVIRONMENTAL BENEFIT

1. What issues affecting the environment are addressed by this proposal?

The revisions to this regulation are intended to prevent asbestos fibers from entering the environment.

2. How does this proposed rule protect, enhance, or restore the natural environment for the well being of all Arkansans?

By requiring photos of individuals seeking certificates, the Department will be better able to enforce proper worker related asbestos abatement practices. Increased reporting from training providers will also help ensure effective training. These changes will increase confidence that the individuals receiving certification are the individuals who were trained. Proper training and increased reporting requirements will improve the success of the additional air monitoring. The proposed changes combined will help ensure that asbestos fibers are not being released into the environment, and will improve the overall effectiveness and enforceability of asbestos abatement regulation.

3. What detrimental effect will there be to the environment or to the public health and safety if this proposed rule is not implemented?

If the proposed revisions are not implemented it is more likely that asbestos fibers will be released into the atmosphere due to less effective and enforceable regulation, resulting in an increased morbidity and premature deaths. If just one premature death is prevented each nine years the proposed changes will have a positive economic benefit.

Sources and Assumptions:

EXHIBIT F

Please see the attached appendix for detailed sources and assumptions.

4. What risks are addressed by the proposal and to what extent are the risks anticipated to be reduced?

See item 3 above.

Economic Impact and Environmental Benefit Analysis

Appendix

Introduction

Regulation 8, at 8.812(A) requires an economic impact and environmental benefit analysis of proposed changes to a regulation unless the changes are exempt. According to 8.812(C), when a portion of a proposed rule is exempt but the remainder is not then an economic impact and environmental benefit analysis shall be prepared on all parts of the rule not exempt. Those parts of the rule exempt shall be identified with an explanation of which exemptions apply and why they apply.

For this proposed rule the following changes will require an impact and environmental benefit analysis:

The requirement that air monitoring be done before and during a project (in addition to after the project as now required).—*21.901(G)*

The requirement that air monitoring be done by an independent party who is not an agent of the firm doing the renovation.—*21.901(G)(1)*

The requirement that individuals being certified to submit a photo of themselves.—*21.1501(D)*

The requirement that training providers provide a photo of their students and identify the individuals in the picture(s) as well as specify the other information training providers are required to submit—*21.611*

The analysis of these proposed changes can be found below.

In addition to the above changes the proposed regulation will reduce most fees by 25%.

Air monitoring

Costs estimates

The proposed regulation will require that air monitoring be done before, during, and after, a project done inside containment. Currently monitoring is only required after the project. Also the regulation will require that the monitoring be conducted by an independent party who is not an employee of the firm doing the renovation.

In an effort to determine the cost of these changes we surveyed firms who do monitoring and developed the following price ranges:

Monitoring Event Costs

| | low | mid point | high |
|------------|-----------|-----------|-----------|
| Baseline | \$250 | \$530 | \$810 |
| 3 day job | \$650/day | \$700/day | \$750/day |
| 5 day job | \$600/day | \$650/day | \$700/day |
| 10 day job | \$550/day | \$550/day | \$550/day |

The next step was to determine how many jobs may be subject to monitoring. In actual practice no demolitions are conducted inside containment. If containment is needed prior to a demolition, a renovation is first conducted the demolition follows once all RCAM has been removed. For purposed of this document we looked at the number of renovations conducted during the last 12-month period (December 2008 to November 2009). For the purposes of this analysis it was assumed that all renovations were conducted inside containment and would require monitoring.

Our records indicate that there were 376 renovations during this time period. Of these, 104 were single-day renovations and 272 were multi-day renovations. For the multi-day jobs a survey of our inspectors indicate the approximately 75% are 3-day jobs, 20% 5-day jobs, and 5% 10 day jobs.

The estimated annual cost of the monitoring is presented in the table below:

Estimated Annual Monitoring Costs

| Job length | number | monit.-days | Estimated Costs | | |
|------------------|--------|-------------|-----------------|-----------|-------------|
| | | | low | mid point | high |
| Baseline (1 day) | 376 | 376 | \$94,000 | \$192,000 | \$305,000 |
| 3 day | 204 | 612 | \$378,000 | \$428,000 | \$459,000 |
| 5 day | 54 | 270 | \$162,000 | \$176,000 | \$189,000 |
| 10 day | 14 | 10 | \$77,000 | \$77,000 | \$77,000 |
| TOTAL | | | \$771,000 | \$873,000 | \$1,030,000 |

The baseline monitoring costs were estimated by the total number of renovations (376) by the low, mid point and high cost estimates. The cost of the multi day jobs was estimated by number of jobs by the number of days by the low, mid point, and high cost estimates.

Environmental Benefit

The benefit of increased monitoring will be a decrease of asbestos fibers being released into the air. This will result in a decrease in morbidity and a decrease in premature deaths. In order to compare these benefits to the cost, they must be monetized. According to the OAQPS Economic Analysis Resource Document:

Monetizing the benefits of a regulation involves estimating society’s willingness to pay (WTP) for quantified changes in environmental service flows. In economics, WTP refers to the maximum amount an individual is willing to pay to acquire a benefit. It is

measured as the reduction in income required to return an individual to the level of utility he or she enjoyed prior to receiving the benefit.²

The economics literature discussing the value of changes in fatality risks is rather extensive and provides a relatively strong basis for monetizing benefits when the number of deaths avoided as a result of a regulatory action can be calculated.

Value of a Statistical Life (VSL). Monetary estimates of changes in fatality risk are often expressed in terms of VSL. The term “value of a statistical life” is easily misinterpreted and should be carefully described when used in benefit analysis. In particular, VSL refers to the WTP for reductions in the risk of premature death aggregated over the population experiencing the risk reduction; that is, VSL refers to the sum of many small reductions in fatality risks. (It is important to note that VSL does not attempt to value the life of an identified individual.) For example, if the annual risk of death is reduced by 1 in 1,000,000 for each of 2,000,000 people, then two statistical lives are saved each year as a result of the risk reduction measures. If each individual is willing to pay \$5 for the risk reduction of 1 in 1,000,000, then the value of each statistical life saved is \$5 million.³

In previous EPA rulemakings they have used a VSL of \$6.324 million in 2000 dollars.⁴ Adjusting that to 2008 dollars yields a value of \$7.907 million.

With a mid-point cost of \$873,000 per year this means if just one statistical life is saved each nine years the proposed changes will have a positive economic benefit.

Individual Photograph Submittal

The Department currently issues certifications to individuals who wish to work in various asbestos disciplines. Specifically, we certify the disciplines of contractor/supervisor, air monitor, inspector, management planner, project designer, and worker. The proposed rule will require individuals seeking certification in these disciplines to submit a photograph (print or digital image) of themselves or come to the Department’s offices during normal business hours and have one taken free of charge. The proposed rule will also reduce the fees associated with these certifications by 25%. The fee for contractor/supervisor, air monitor, inspector, management planner, and project designer certifications are currently \$150/year each; they will be reduced to \$112.50. Workers currently pay a certification fee of \$35/year; this proposed rule will reduce this to \$26.40. It is common in the asbestos industry for individuals to hold multiple certifications. We currently offer a discount if they apply for the certifications at the same time. The proposed regulation will extend this discount if they apply for the multiple certifications during the same year.

² OAQPS Economic Analysis Resource Document, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Innovative Strategies and Economics Group, April 2009, page 7-11.

³ Ibid pp 7-15, 7-16.

⁴ Impacts of the SAMI Strategies: An Independent Analysis of the Benefits and Economic Impacts; Conducted by: U.S. Environmental Protection Agency, U.S. National Park Service, U.S. Forest Service; April 2002; page 14.

In estimating the economic impact of this change we considered the increase cost of submitting the photograph as well as the decreased cost of certification fees. We chose the worker certification as the worst case to consider since their fees, and thus the savings from reduced fees, are the lowest. Also, few workers (only one as of December 2009) have multiple certifications so that the cost of submitting a photograph can not be spread among several certificates.

Passport photos, which will also meet the requirements of Regulation 21, are widely available across the state for a fee of \$8. We estimate it will take 30 minutes to have the photo taken at \$10/hr or a cost of \$5 for the time involved. This brings the total cost to \$13. The photo need only be submitted once and can be used in future years as long as it is current. For purposes of this analysis we assumed the photo will remain current for five years. This brings the annual cost of photo submission to \$2.60/year. Worker certification fees will be reduced \$8.60/year meaning these changes will have a net annual benefit to workers of \$6.60.

Training Provider Submittals

This regulation will mandate training providers comply with certain reporting requirements. Specifically it will require they notify us in advance of all classes and submit information to us within 10 days of class completion.

The information required in advance of classes will be:

Name, address, telephone number, fax number (if applicable), and e-mail address (if applicable);

Course information including title of the course, date and address where the course will be conducted, and the name of the instructor conducting the course; and

Notices of changes or cancellations.

Information required after the class will be:

Course name and type,

Dates the course was conducted,

A roster of attendees, including, for each attendee: name and address, course completion certificate number, and a class photo with a caption identifying each person (or individual photos of each student), and

The instructor's name.

Currently all training providers provide the pre-class information on a voluntary basis and some of them provide the post-class information. However, since this rule change will mandate these submittals we have attempted to estimate the cost of compliance. In doing so we did not attempt

to estimate the cost to each individual training provider but rather average cost across the entire industry.

As for the pre-class submittals, ADEQ employees estimated the time it would take to prepare and submit the required information by actually going through the process. The process consisted of opening a word processing program and starting with a blank page. The necessary information was typed and the resulting document was e-mailed to an ADEQ address. The entire process took three minutes and twelve seconds. This time could be shortened further through the use of word processing templates.

Post-class submittals will include some of the same information as the pre-class submittals and will also include a class roster and photos of the students. To determine the time necessary to take the pictures of a class ADEQ employees simulated a class picture taking session. Fifteen pictures (considered a median class size) were taken with the models holding a piece of paper with numbers 1 through 15. The pictures were then downloaded to a computer. This process took five minutes and 40 second.

The next step is to identify the individuals in the pictures. In our example a table was created using the class roster identifying each individual by the number they were holding. This took three minutes and 57 seconds. Finally the other required documents were prepared and the pictures (resized for e-mail) and documents e-mailed to an ADEQ e-mail address. This process took two minutes and fourteen seconds.

The entire process including picture taking and downloading and document preparation and submission took fifteen minutes and six seconds.

During the past year the eleven licensed training providers taught a total of 273 classes for an average of 24.8 per training provider. Only basic clerical skills are needed to comply with these reporting requirements. People with these skills can be hired at \$15/hour. (The Department recognizes that different training providers have different business practices and some of them do their own clerical work; however, we did not base this calculation on the value of a training provider's time since their skills are not needed to comply with these requirements.)

Doing the math, we have a total of 18 minutes and 18 seconds per class times 24.8 classes per year gives us 454 minutes per year or 7.56 hours per year. At \$15/hour this comes to \$113.46/year for each training provider.

In addition we have the capital equipment requirement, i.e. digital camera. Digital cameras can be purchased for \$100 or less. They items should last at least five years, for an annual cost of \$20/year.

The total average annual cost will be \$133.46/yr for each training provider (\$113.46 dollars for the time and \$20 for the equipment). Fees on training providers are being reduced by \$125/hr so the average net change will be an increase of \$8.46 per year per training provider.

Exempt Changes

The following changes are exempt under 8.812(A)(4) from requirement to perform an economic impact analysis:

The regulation was reformatted to meet the Commission's current regulation formation guidelines. Minor non-substantive wording changes were made to allow the reformatting to proceed.

Minor changes were made so that one consistent style is used throughout the regulation

Chapter 11 was reorganized.

Chapter 26 was deleted since it contained transition language which no longer applies.

Numerous terms were defined in Chapter four even though those terms were not used elsewhere in the regulation. These definitions have been deleted.

Changes With a De Minimis Positive Economic Impact

The following changes will have a de minimis positive economic impact (i.e. they will lower cost to regulated entities.)

The requirement that liability insurance must be issued by an Arkansas resident agent was dropped.—*21.1301(E) p13-1*

The requirement that contractors and consultant license fees expire December 31 was dropped. They will now be issued for a period of 12 months. Because of this the fees will no longer be prorated. —*21.2202 & 21.2203 p22-1*

The proposed revisions will allow individuals who have multiple certifications to take advantage of the fee discount for additional certification even if they don't apply for them all at the same time.—*21.2211 p22-2*

Changes With No Economic Impact

The following changes clarify current practice and or procedures. These changes will have no economic impact since they codify what is already being done.

The applicability section was amended to clarify that the regulation covers disposal of asbestos containing waste.

The following definition were added: "Air monitor"

“Commercial Asbestos”
“EPA”
“Individual”
“Person or Persons”
“Thorough Inspection”

The proposed regulation clarifies:

the reciprocity requirements in chapter 24
the fact that training providers may be required to provide copies of any records that they are required to keep under 21.1807(I)
that a project design, certificates and licenses must be kept on site of a reno/demo, and individuals are required to submit a disclosure statement in accordance with regulation 8.
that floor tile is RACM if removed by breaking, sanding, grinding, cutting, or abrading. *chapter 4 RACM definition p4-7*
that all project designs be written and specific to the job in question.—*21.502, p5-1*
the minimum amount of liability insurance coverage is \$1,000,000.