

Office of Regulatory Management
Economic Review Form

Agency name	Virginia Board for Asbestos, Lead, and Home Inspectors
Virginia Administrative Code (VAC) Chapter citation(s)	18 VAC 15-30
VAC Chapter title(s)	Virginia Lead-Based Paint Activities Regulations
Action title	2022 Asbestos and Lead Temporary Fee Reduction
Date this document prepared	December 16, 2022

Cost Benefit Analysis

Table 1a must be completed for all actions. Tables 1b and 1c must be completed for actions (or portions thereof) where the agency is exercising discretion, including those where some of the changes are mandated by state or federal law or regulation. Tables 1b and 1c are not needed if **all** changes are mandated, and the agency is not exercising any discretion. In that case, enter a statement to that effect.

- (1) Direct Costs & Benefits: Identify all specific, direct economic impacts (costs and/or benefits), anticipated to result from the regulatory change. (A direct impact is one that affects entities regulated by the agency and which directly results from the regulatory change itself, without any intervening steps or effects. For example, the direct impact of a regulatory fee change is the change in costs for these regulated entities.) When describing a particular economic impact, specify which new requirement or change in requirement creates the anticipated economic impact. Keep in mind that this is the proposed change versus the status quo. One bullet has been provided, add additional bullets as needed.
- (2) Quantitative Factors:
 - (a) Enter estimated dollar value of total (overall) direct costs described above.
 - (b) Enter estimated dollar value of total (overall) direct benefits described above.
 - (c) Enter the present value of the direct costs based on the worksheet.
 - (d) Enter the present value of the direct benefits based on the worksheet.
- (3) Benefits-Costs Ratio: Calculate d divided by c OR enter it from the worksheet.
- (4) Net Benefit: Calculate d minus c OR enter it from the worksheet.
- (5) Indirect Costs & Benefits: Identify all specific, indirect economic impacts (costs and/or benefits), anticipated to result from the regulatory change. (An indirect impact is one that results from responses to the regulatory change, but which are not directly required by the regulation. Indirect impacts of a regulatory fee change on regulated entities could include a change in the prices they charge, changes in their operating procedures or employment levels, or decisions to enter or exit the regulated profession or market. Indirect impacts also include responses by other entities that have close economic ties to the regulated entities, such as suppliers or partners.) If there are no indirect costs or benefits, include a specific statement to that effect.

- (6) Information Sources: Describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why they are not.
- (7) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Table 1a: Costs and Benefits of the Proposed Changes (Primary Option)

<p>(1) Direct Costs & Benefits</p>	<ul style="list-style-type: none"> • Temporary reduction of fees for renewal of lead licenses and accredited lead training program approvals. <p>Direct Costs:</p> <ul style="list-style-type: none"> ○ Change reduces the cost of the renewal fee for lead worker, supervisor, inspector, risk assessor, and project designer from \$45 to \$25. ○ Change reduces the cost of the renewal fee for a lead contractor license from \$70 to \$30. ○ Change reduces the cost of the renewal fee for an accredited lead training program approval from \$125 to \$40. <p>Other direct costs are unchanged.</p> <p>Direct Benefits: There is no additional direct benefit resulting from the change. Otherwise, the direct benefit is the occupational license or training program approval.</p> <ul style="list-style-type: none"> • Temporary reduction of fees for late renewal of lead licenses and accredited lead training program approvals. <p>Direct Costs:</p> <ul style="list-style-type: none"> ○ Change reduces the cost of the late renewal fee for lead worker, supervisor, inspector, risk assessor, and project designer from \$80 to \$60. ○ Change reduces the cost of the renewal fee for a lead contractor license from \$105 to \$65. ○ Change reduces the cost of the renewal fee for an accredited lead training program approval from \$160 to \$75. <p>Direct Benefits: There is no additional direct benefit resulting from the change. Otherwise, the direct benefit is the occupational license or training program approval.</p>	
<p>(2) Quantitative Factors</p>	<p>Estimated Dollar Amount</p>	<p>Present Value</p>
<p>Direct Costs</p>	<p>(a) \$1,282 (worker) \$1,759 (supervisor) \$1,691 (inspector)</p>	<p>(c) \$1,157 (worker) \$1,629 (supervisor) \$1,555 (inspector)</p>

	\$ 2,096 (assessor) \$1,919 (designer) \$3,316 (contractor) \$985 (training program)	\$1,962 (assessor) \$1,772 (designer) \$2,986 (contractor) \$963 (training program)
Direct Benefits	(b) \$407,200 (worker) \$697,400 (supervisor) \$621,700 (inspector) \$1,002,400 (assessor) \$1,002,400 (designer) \$721,950 (contractor) \$789,970 (training program)	(d) \$357,770 (worker) \$612,743 (supervisor) \$546,232 (inspector) \$880,720 (assessor) \$880,720 (designer) \$634,313 (contractor) \$694,076 (training program)
(3) Benefits-Costs Ratio	309.25 (worker) 376.13 (supervisor) 351.20 (inspector) 448.94 (assessor) 496.95 (designer) 212.46 (contractor) 720.51 (training program)	(4) Net Benefit \$356,613 (worker) \$611,114 (supervisor) \$544,677 (inspector) \$878,758 (assessor) \$878,947 (designer) \$631,328 (contractor) \$693,113 (training program)
(5) Indirect Costs & Benefits	<p><u>Indirect Costs:</u> Indirect costs of the regulation are not anticipated to be impacted as a result of this regulatory change.</p> <p><u>Indirect Benefits:</u> The regulatory change will indirectly benefit DPOR because the Board will remain in compliance with the Callahan Act (§ 54.1-113 of the Code of Virginia). Those that utilize the services of lead licensees and accredited training programs may also indirectly benefit from the reduced costs assumed by regulants. Otherwise, indirect benefits of the regulation are not anticipated to be impacted as a result of this regulatory change.</p>	
(6) Information Sources	<p>Box 2(a):</p> <p>Initial licensure and license renewal of individual licenses. Average training cost for individual licensees is derived from training fees posted online by the following Board-approved training providers who provide initial and refresher training for all licensed disciplines:</p> <p>Aerosol Monitoring & Analysis, Inc.: https://amatraining.com/services/training/ (Accessed 12/14/22).</p> <p>France Environmental: https://www.franceenv.com/training-center/#lead-paint-training (Accessed 12/14/22).</p> <p>The EI Group, Inc.: https://eil.com/services/training/asbestos-courses/ (Accessed 12/14/22).</p>	

Initial licensure and renewal of lead contractor licenses.

- SCC fees obtained from State Corporation Commission website: <https://www.scc.virginia.gov/pages/Forms-and-Fees> (Accessed 12/12/22).
- Fees for licensure and examination by the Board for Contractors obtained from Board for Contractors website and 18VAC50-22: <https://www.dpor.virginia.gov/Boards/Contractors>
<https://law.lis.virginia.gov/admincode/title18/agency50/chapter22/>
- Average training cost for contractor pre-license education is derived from training fees posted online by the following training providers approved by the Board for Contractors who provide pre-licensure education:
 - Contractor Training Center LLC: <https://virginiaexamtraining.com/>
 - Brightpoint Community College: <https://ccwatraining.org/>
 - Tidewater Community College: <https://tcc.augusoft.net/>
 - Wytheville Community College: <http://www.wcc.vccs.edu/workforce>
 - Germanna Community College: <https://www.germannna.edu/workforce/>
 - American Contractors Exam Services: <https://www.examprep.org/>
 - Virginia Peninsula Community College: <https://www.vpcc.edu/workforce>
 - New River Community College: <https://www.nr.edu/workforce/>
 - Across VA Contractor Education & Exam Prep: <http://www.avaceducation.com/>

Box 2(b):

For individual licenses. May 2021 State Occupational Employment and Wage Estimates Virginia, United States Bureau of Labor Statistics (https://www.bls.gov/oes/current/oes_va.htm).

For contractor licenses. ZipRecuriter website (<https://www.ziprecruiter.com/Salaries/Construction-company-owner-Salary>) (Accessed on 12/12/22).

For accredited training programs. GlassDoor website https://www.glassdoor.com/Salaries/private-school-owner-salary-SRCH_KO0,20.htm (Accessed on 12/13/22).

<p>(7) Optional</p>	<p>Box 2(a):</p> <p>(Lead Worker)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$466. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial worker training (\$386).</p> <p>The estimated direct cost to renew a license is \$222. Direct costs are (i) the renewal fee (\$25); and (ii) the average fee for refresher worker training (\$197). A licensee is required to take refresher training every three years (36 months).</p> <p>(Lead Supervisor)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$913. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial supervisor training (\$643); and (iii) the cost to take the license examination (\$190).</p> <p>The estimated direct cost to renew a license is \$232. Direct costs are (i) the renewal fee (\$25); and (ii) the average fee for refresher supervisor training (\$207). A licensee is required to take refresher training every three years (36 months).</p> <p>(Lead Inspector)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$809. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial inspector training (\$539); and (iii) the cost to take the license examination (\$190).</p> <p>The estimated direct cost to renew a license is \$244. Direct costs are (i) the renewal fee (\$25); and (ii) the average fee for refresher inspector training (\$219). A licensee is required to take refresher training every three years (36 months).</p> <p>(Lead Risk Assessor)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$1,223. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial assessor training (\$414); (iii) the average fee for initial inspector training (\$539); and (iv) the cost to take the license examination (\$190).</p> <p>The estimated direct cost to renew a license is \$241. Direct costs are (i) the renewal fee (\$25); and (ii) the average fee for refresher planner training</p>
---------------------	--

(\$216). A licensee is required to take refresher training every three years (36 months).

(Lead Project Designer)

The estimated direct cost to an individual to obtain an initial license is \$968. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial designer training (\$245); and (iii) the average fee for initial supervisor training (\$643).

The estimated direct cost to renew a license is \$267. Direct costs are (i) the renewal fee (\$25); and (ii) the average fee for refresher designer training (\$242). A licensee is required to take refresher training every three years (36 months).

(Lead Contractor)

The estimated direct cost to a firm to obtain an initial license is \$871. Direct costs are (i) the application fee (\$110); (ii) average fee to register a corporation with the SCC (\$98); and (iii) the cost to obtain a contractor license from the Board for Contractors (\$663).

Under the Board's regulation, corporations and limited liability companies must be registered with the SCC. The average SCC registration fee is based on (i) a \$85 fee to register a stock corporation of up to 25,000 shares (\$50 charter fee + \$25 filing fee + \$10 name reservation fee); and (ii) a \$110 fee to register a limited liability company (\$100 formation fee + \$10 name reservation fee).

Under the Board's regulation, a lead contractor must also hold a valid license issued by the Board for Contractors with an lead abatement contracting specialty. The estimated cost for obtaining a contractor license is based on (i) the application fee for a Class A contractor license (\$385); (ii) the average cost of pre-license education (\$193); and (iii) the cost to take the Class A license examination (\$85).

The estimated direct cost to a firm to renew a lead license is at least \$165 annually. As licensees are also regulants of the Board for Contractors, a licensee must renew its contractor license with that board every two years. Accordingly, the direct cost to renew a license will increase during years a licensee must also renew a contractor license. Direct costs are (i) the renewal fee (\$30); (ii) estimated fee to renew registration of a corporation with the SCC (\$135); and (iii) the cost to renew a contractor license from the Board for Contractors (\$240).

<p>Under the Board’s regulation, corporations and limited liability companies must be registered with the SCC. The estimated SCC annual filing fee is based on (i) a \$220 annual registration fee for a stock corporation of up to 25,000 shares; and (ii) a \$50 annual fee for a limited liability company.</p> <p>Under the licensure regulations of the Board for Contractors, a Class A contractor must pay a renewal fee of \$240 every two years.</p> <p>(Accredited Lead Training Program)</p> <p>The estimated direct cost to a firm to obtain an initial approval as a training program is \$825. The training program application fee is \$500 per day of training. The average length of a training program is 1.65¹ days.</p> <p>The estimated direct cost to a firm to renew approval as a training program is \$40, which reflects the renewal fee.</p> <p>Licenses for individuals (worker, supervisor, inspector, risk assessor, and project designer), and contractors. Calculation of direct costs includes the direct costs for initial licensure (Year 0), and direct costs for renewal of a license every succeeding year.</p> <p>Training program approvals are valid for a period of 24 months.</p> <p>Calculation of direct costs does not include the late renewal fee that would be due if a licensee fails to renew a license within the timeframe required by the regulation.</p> <p>Box 2(b):</p> <p>(Lead Worker) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are hazardous materials removal workers (\$40,720).</p> <p>(Lead Supervisor) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are first line supervisors of construction trades and extraction workers (\$69,740).</p> <p>(Lead Inspector) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are construction and buildings inspectors (\$62,170).</p>

¹ Length for initial training program: Worker – two (2) days; Supervisor – four (4) days; Inspector – three (3) days; Risk Assessor – two (2) days; Project Designer – one (1) day. Length for refresher training program: Worker – one (1) day; Supervisor – one (1) day; Inspector – one (1) day; Risk Assessor – one (1) day; Project Designer – one-half (.5) day; Project Monitor – one (1) day.

	<p>(Lead Risk Assessor) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are environmental engineers (\$100,240).</p> <p>(Lead Project Designer) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are environmental engineers (\$100,240).</p> <p>(Lead Contractor) This is the estimated value for the direct benefit of receiving the occupational license based on the national average annual pay for a construction company owner (\$72,195).</p> <p>(Accredited Lead Training Programs) The estimated direct benefit of receiving the training program approval is based on the national average annual pay for a private school owner (\$78,997).</p>
--	--

Table 1b: Costs and Benefits under the Status Quo (No change to the regulation)

This table addresses current requirements and the implications of not making any changes. In other words, describe the costs and benefits of maintaining the current regulatory requirements as is.

<p>(1) Direct Costs & Benefits</p>	<ul style="list-style-type: none"> • Direct costs and benefits of licensure based on current requirements. <p>Direct Costs:</p> <ul style="list-style-type: none"> • Individual licenses (worker, supervisor, inspector, risk assessor, project designer). <p>Direct costs for an initial individual license are (i) the application fee; (ii) the cost of the initial training for the discipline; and (iii) the cost of the license examination (for supervisor, inspector, and risk assessor). Direct costs for renewal of a license are (i) the application fee; and (ii) cost to complete refresher training. A licensee is required to take refresher training every three years (36 months).</p> <ul style="list-style-type: none"> • Lead contractor licenses. <p>Direct costs for an initial license are (i) the application fee; (ii) SCC fees; and (iii) cost to obtain a contractor license from the Board for Contractors. Direct costs for renewal of a contractor license are (i) the application fee; (ii) SCC fees; and (iii) cost to obtain renewal of a contractor license from the Board for Contractors.</p>
--	---

	<ul style="list-style-type: none"> Accredited lead training program approval. <p>Direct cost for training providers to receive approval from the Board is the training program application approval fee. The direct cost to a firm to renew approval as a training program is the renewal fee.</p> <p>Direct Benefits: The direct benefit is the occupational license or training program approval.</p>		
(2) Quantitative Factors	Estimated Dollar Amount	Present Value	
Direct Costs	(a) \$1,462 (worker) \$1,939 (supervisor) \$1,871 (inspector) \$2,276 (assessor) \$2,099 (designer) \$3,676 (contractor) \$1,325 (training program)	(c) \$1,313 (worker) \$1,785 (supervisor) \$1,711 (inspector) \$2,117 (assessor) \$1,928 (designer) \$3,297 (contractor) \$1,257 (training program)	
Direct Benefits	(b) \$407,200 (worker) \$697,400 (supervisor) \$621,700 (inspector) \$1,002,400 (assessor) \$1,002,400 (designer) \$721,950 (contractor) \$789,970 (training program)	(d) \$357,770 (worker) \$612,743 (supervisor) \$546,232 (inspector) \$880,720 (assessor) \$880,720 (designer) \$634,313 (contractor) \$694,076 (training program)	
(3) Benefits-Costs Ratio	272.5607086 (worker) 343.30877 (supervisor) 319.2390116 (inspector) 415.9265654 (assessor) 456.8087254 (designer) 192.3871113 (contractor) 552.0603474 (training program)	(4) Net Benefit	\$356,458 (worker) \$610,958 (supervisor) \$544,521 (inspector) \$878,602 (assessor) \$878,792 (designer) \$631,016 (contractor) \$692,819 (training program)
(5) Indirect Costs & Benefits	<p><u>Indirect Costs</u></p> <p>Indirect costs include, as applicable:</p> <p>Individual licenses.</p> <ul style="list-style-type: none"> Time costs related to taking initial lead training. Travel and incidental costs to complete required initial training. Time costs to prepare for and take the license examination (if applicable). 		

- Travel and incidental costs to take the license the license examination (if applicable).
- Administrative costs to complete the license application, including costs to obtain verification of education (if applicable) and obtain verification of experience (if applicable).
- Time costs to complete the license application and obtain supporting documentation.
- Time costs of third parties, such as those verifying experience or providing transcripts.
- Time costs to attend and complete required refresher training.
- Travel and incidental costs to complete required refresher training.
- Administrative costs to submit license renewal.
- Time costs to submit license renewal.

Contractor licenses.

- Time costs related to preparing for and taking Board for Contractors pre-license education.
- Time costs related to preparing for and taking Board for Contractors license examination.
- Travel and incidental costs to complete Board for Contractors pre-license education and license examination.
- Administrative costs to register firm with SCC.
- Time costs to register firm with SCC.
- Administrative costs to complete license application.
- Time costs to complete license application.
- Administrative costs to submit license renewal.
- Time costs to submit license renewal.
- Administrative costs to maintain SCC registration
- Time costs to maintain SCC registration.
- Administrative costs to comply with lead abatement standards, including notifications to building owners.
- Time costs to comply with lead abatement standards, including notification to building owners.

Accredited training programs.

- Time costs related to preparing training program documentation and materials.
- Administrative costs related to preparing training program documentation and materials.
- Administrative costs to complete training program approval application.
- Time costs to complete training program approval application.
- Administrative costs to submit training program renewal.
- Time costs to submit training program renewal.
- Administrative costs related to record-keeping requirements.

	<ul style="list-style-type: none"> • Time costs related to record-keeping requirements. • Administrative costs to provide the Board with notifications of training schedules and participant lists. • Time costs to provide the Board with notifications of training schedules and participant lists. • Administrative costs to maintain approval, including changes to curriculum, examination, materials, and instructors. • Time costs to maintain approval, including changes to curriculum, examination, materials, and instructors. <p><u>Indirect Benefits</u></p> <p>Indirect benefits include:</p> <ul style="list-style-type: none"> • The reduced risk of environmental damage caused by lead that is not properly remediated, and associated remediation costs. • The reduced risk of harm to public health resulting from exposure to disturbed lead paint that was not properly contained/remediated, and associated mitigation costs. • The reduced risk of adverse health effects (e.g. brain damage, organ damage) that are related to lead exposure, and associated costs that might be assumed by the public health system.
(6) Information Sources	Please refer to Box #6 in Table 1(a).
(7) Optional	<p>Box 2(a):</p> <p>(Lead Worker)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$466. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial worker training (\$386).</p> <p>The estimated direct cost to renew a license is \$242. Direct costs are (i) the renewal fee (\$45); and (ii) the average fee for refresher worker training (\$197). A licensee is required to take refresher training every three years (36 months).</p> <p>(Lead Supervisor)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$913. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial supervisor training (\$643); and (iii) the cost to take the license examination (\$190).</p>

<p>The estimated direct cost to renew a license is \$252. Direct costs are (i) the renewal fee (\$45); and (ii) the average fee for refresher supervisor training (\$207). A licensee is required to take refresher training every three years (36 months).</p> <p>(Lead Inspector)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$809. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial inspector training (\$539); and (iii) the cost to take the license examination (\$190).</p> <p>The estimated direct cost to renew a license is \$264. Direct costs are (i) the renewal fee (\$45); and (ii) the average fee for refresher inspector training (\$219). A licensee is required to take refresher training every three years (36 months).</p> <p>(Lead Risk Assessor)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$1,223. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial assessor training (\$414); (iii) the average fee for initial inspector training (\$539); and (iv) the cost to take the license examination (\$190).</p> <p>The estimated direct cost to renew a license is \$261. Direct costs are (i) the renewal fee (\$45); and (ii) the average fee for refresher planner training (\$216). A licensee is required to take refresher training every three years (36 months).</p> <p>(Lead Project Designer)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$968. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial designer training (\$245); and (iii) the average fee for initial supervisor training (\$643).</p> <p>The estimated direct cost to renew a license is \$287. Direct costs are (i) the renewal fee (\$45); and (ii) the average fee for refresher designer training (\$242). A licensee is required to take refresher training every three years (36 months).</p> <p>(Lead Contractor)</p> <p>The estimated direct cost to a firm to obtain an initial license is \$871. Direct costs are (i) the application fee (\$110); (ii) average fee to register a</p>

	<p>corporation with the SCC (\$98); and (iii) the cost to obtain a contractor license from the Board for Contractors (\$663).</p> <p>Under the Board’s regulation, corporations and limited liability companies must be registered with the SCC. The average SCC registration fee is based on (i) a \$85 fee to register a stock corporation of up to 25,000 shares (\$50 charter fee + \$25 filing fee + \$10 name reservation fee); and (ii) a \$110 fee to register a limited liability company (\$100 formation fee + \$10 name reservation fee).</p> <p>Under the Board’s regulation, a lead contractor must also hold a valid license issued by the Board for Contractors with an lead abatement contracting specialty. The estimated cost for obtaining a contractor license is based on (i) the application fee for a Class A contractor license (\$385); (ii) the average cost of pre-license education (\$193); and (iii) the cost to take the Class A license examination (\$85).</p> <p>The estimated direct cost to a firm to renew a lead license is at least \$205 annually. As licensees are also regulants of the Board for Contractors, a licensee must renew its contractor license with that board every two years. Accordingly, the direct cost to renew a license will increase during years a licensee must also renew a contractor license. Direct costs are (i) the renewal fee (\$70); (ii) estimated fee to renew registration of a corporation with the SCC (\$135); and (iii) the cost to renew a contractor license from the Board for Contractors (\$240).</p> <p>Under the Board’s regulation, corporations and limited liability companies must be registered with the SCC. The estimated SCC annual filing fee is based on (i) a \$220 annual registration fee for a stock corporation of up to 25,000 shares; and (ii) a \$50 annual fee for a limited liability company.</p> <p>Under the licensure regulations of the Board for Contractors, a Class A contractor must pay a renewal fee of \$240 every two years.</p> <p>(Accredited Lead Training Program)</p> <p>The estimated direct cost to a firm to obtain an initial approval as a training program is \$825. The training program application fee is \$500 per day of training. The average length of a training program is 1.65² days.</p> <p>The estimated direct cost to a firm to renew approval as a training program is \$125, which reflects the renewal fee.</p>
--	---

² Length for initial training program: Worker – two (2) days; Supervisor – four (4) days; Inspector – three (3) days; Risk Assessor – two (2) days; Project Designer – one (1) day. Length for refresher training program: Worker – one (1) day; Supervisor – one (1) day; Inspector – one (1) day; Risk Assessor – one (1) day; Project Designer – one-half (.5) day; Project Monitor – one (1) day.

	<p>Licenses for individuals (worker, supervisor, inspector, risk assessor, and project designer), and contractors. Calculation of direct costs includes the direct costs for initial licensure (Year 0), and direct costs for renewal of a license every succeeding year.</p> <p>Training program approvals are valid for a period of 24 months.</p> <p>Calculation of direct costs does not include the late renewal fee that would be due if a licensee fails to renew a license within the timeframe required by the regulation.</p> <p>Box 2(b):</p> <p>(Lead Worker) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are hazardous materials removal workers (\$40,720).</p> <p>(Lead Supervisor) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are first line supervisors of construction trades and extraction workers (\$69,740).</p> <p>(Lead Inspector) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are construction and buildings inspectors (\$62,170).</p> <p>(Lead Risk Assessor) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are environmental engineers (\$100,240).</p> <p>(Lead Project Designer) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are environmental engineers (\$100,240).</p> <p>(Lead Contractor) This is the estimated value for the direct benefit of receiving the occupational license based on the national average annual pay for a construction company owner (\$72,195).</p> <p>(Accredited Lead Training Programs) The estimated direct benefit of receiving the training program approval is based on the national average annual pay for a private school owner (\$78,997).</p>
--	---

Table 1c: Costs and Benefits under an Alternative Approach

This table addresses an alternative approach to accomplishing the objectives with different requirements. These alternative approaches may include the use of reasonably available alternatives in lieu of regulation, or information disclosure requirements or performance standards instead of regulatory mandates.

<p>(1) Direct Costs & Benefits</p>	<ul style="list-style-type: none"> • An alternative approach would be to revert to the reduced renewal fee schedule that was applicable to licenses that expired after February 1, 2020, and before February 1, 2021. <p>Direct Costs:</p> <ul style="list-style-type: none"> ○ Alternative would reduce the cost of the renewal fee for lead worker, supervisor, inspector, risk assessor, and project designer from \$45 to \$40. ○ Alternative would reduce the cost of the renewal fee for a lead contractor license from \$70 to \$60. ○ Alternative would reduce the cost of the renewal fee for an accredited lead training program approval from \$125 to \$75. <p>Other direct costs would be unchanged.</p> <p>Direct Benefits: There would be no additional direct benefit resulting from the change. Otherwise, the direct benefit is the occupational license or training program approval.</p> <p>The alternative approach described above, though beneficial to licensees and approved training program providers, would not be a viable approach as it would likely result in the Board being out of compliance with the Callahan Act.</p>	
<p>(2) Quantitative Factors</p>	<p>Estimated Dollar Amount</p>	<p>Present Value</p>
<p>Direct Costs</p>	<p>(a) \$1,417 (worker) \$1,894 (supervisor) \$1,826 (inspector) \$2,231 (assessor) \$2,054 (designer) \$3,586 (contractor) \$1,125 (training program)</p>	<p>(c) \$1,274 (worker) \$1,746 (supervisor) \$1,776 (inspector) \$2,079 (assessor) \$1,889 (designer) \$3,219 (contractor) \$1,084 (training program)</p>
<p>Direct Benefits</p>	<p>(b) \$407,200 (worker) \$697,400 (supervisor) \$621,700 (inspector) \$1,002,400 (assessor) \$1,002,400 (designer) \$721,950 (contractor)</p>	<p>(d) \$357,770 (worker) \$612,743 (supervisor) \$546,232 (inspector) \$880,720 (assessor) \$880,720 (designer) \$634,313 (contractor) \$694,076 (training program)</p>

	\$789,970 (training program)		
(3) Benefits-Costs Ratio	280.89 (worker) 350.96 (supervisor) 326.67 (inspector) 423.72 (assessor) 466.22 (designer) 197.04 (contractor) 640.09 (training program)	(4) Net Benefit	\$356,497 (worker) \$610,997 (supervisor) \$544,560 (inspector) \$878,641 (assessor) \$878,831 (designer) \$631,094 (contractor) \$692,992 (training program)
(5) Indirect Costs & Benefits	<p><u>Indirect Costs:</u> Indirect costs of the regulation are not anticipated to be impacted as a result of this possible alternative.</p> <p>However, there would be an indirect cost to DPOR because the Board would be out of compliance with the Callahan Act (§ 54.1-113 of the Code of Virginia).</p> <p><u>Indirect Benefits:</u> Those that utilize the services of lead licensees and accredited training programs may indirectly benefit from the reduced costs assumed by regulants. Otherwise, indirect benefits of the regulation are not anticipated to be impacted as a result of this possible alternative.</p>		
(6) Information Sources	Please refer to Box 6 of Table 1a.		
(7) Optional	<p>Box 2(a):</p> <p>(Lead Worker)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$466. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial worker training (\$386).</p> <p>The estimated direct cost to renew a license is \$237. Direct costs are (i) the renewal fee (\$40); and (ii) the average fee for refresher worker training (\$197). A licensee is required to take refresher training every three years (36 months).</p> <p>(Lead Supervisor)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$913. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial supervisor training (\$643); and (iii) the cost to take the license examination (\$190).</p>		

The estimated direct cost to renew a license is \$247. Direct costs are (i) the renewal fee (\$40); and (ii) the average fee for refresher supervisor training (\$207). A licensee is required to take refresher training every three years (36 months).

(Lead Inspector)

The estimated direct cost to an individual to obtain an initial license is \$809. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial inspector training (\$539); and (iii) the cost to take the license examination (\$190).

The estimated direct cost to renew a license is \$259. Direct costs are (i) the renewal fee (\$40); and (ii) the average fee for refresher inspector training (\$219). A licensee is required to take refresher training every three years (36 months).

(Lead Risk Assessor)

The estimated direct cost to an individual to obtain an initial license is \$1,223. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial assessor training (\$414); (iii) the average fee for initial inspector training (\$539); and (iv) the cost to take the license examination (\$190).

The estimated direct cost to renew a license is \$256. Direct costs are (i) the renewal fee (\$40); and (ii) the average fee for refresher planner training (\$216). A licensee is required to take refresher training every three years (36 months).

(Lead Project Designer)

The estimated direct cost to an individual to obtain an initial license is \$968. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial designer training (\$245); and (iii) the average fee for initial supervisor training (\$643).

The estimated direct cost to renew a license is \$282. Direct costs are (i) the renewal fee (\$40); and (ii) the average fee for refresher designer training (\$242). A licensee is required to take refresher training every three years (36 months).

(Lead Contractor)

The estimated direct cost to a firm to obtain an initial license is \$871. Direct costs are (i) the application fee (\$110); (ii) average fee to register a

	<p>corporation with the SCC (\$98); and (iii) the cost to obtain a contractor license from the Board for Contractors (\$663).</p> <p>Under the Board’s regulation, corporations and limited liability companies must be registered with the SCC. The average SCC registration fee is based on (i) a \$85 fee to register a stock corporation of up to 25,000 shares (\$50 charter fee + \$25 filing fee + \$10 name reservation fee); and (ii) a \$110 fee to register a limited liability company (\$100 formation fee + \$10 name reservation fee).</p> <p>Under the Board’s regulation, a lead contractor must also hold a valid license issued by the Board for Contractors with an lead abatement contracting specialty. The estimated cost for obtaining a contractor license is based on (i) the application fee for a Class A contractor license (\$385); (ii) the average cost of pre-license education (\$193); and (iii) the cost to take the Class A license examination (\$85).</p> <p>The estimated direct cost to a firm to renew a lead license is at least \$195 annually. As licensees are also regulants of the Board for Contractors, a licensee must renew its contractor license with that board every two years. Accordingly, the direct cost to renew a license will increase during years a licensee must also renew a contractor license. Direct costs are (i) the renewal fee (\$60); (ii) estimated fee to renew registration of a corporation with the SCC (\$135); and (iii) the cost to renew a contractor license from the Board for Contractors (\$240).</p> <p>Under the Board’s regulation, corporations and limited liability companies must be registered with the SCC. The estimated SCC annual filing fee is based on (i) a \$220 annual registration fee for a stock corporation of up to 25,000 shares; and (ii) a \$50 annual fee for a limited liability company.</p> <p>Under the licensure regulations of the Board for Contractors, a Class A contractor must pay a renewal fee of \$240 every two years.</p> <p>(Accredited Lead Training Program)</p> <p>The estimated direct cost to a firm to obtain an initial approval as a training program is \$825. The training program application fee is \$500 per day of training. The average length of a training program is 1.65³ days.</p> <p>The estimated direct cost to a firm to renew approval as a training program is \$75, which reflects the renewal fee.</p>
--	--

³ Length for initial training program: Worker – two (2) days; Supervisor – four (4) days; Inspector – three (3) days; Risk Assessor – two (2) days; Project Designer – one (1) day. Length for refresher training program: Worker – one (1) day; Supervisor – one (1) day; Inspector – one (1) day; Risk Assessor – one (1) day; Project Designer – one-half (.5) day; Project Monitor – one (1) day.

	<p>Licenses for individuals (worker, supervisor, inspector, risk assessor, and project designer), and contractors. Calculation of direct costs includes the direct costs for initial licensure (Year 0), and direct costs for renewal of a license every succeeding year.</p> <p>Training program approvals are valid for a period of 24 months.</p> <p>Calculation of direct costs does not include the late renewal fee that would be due if a licensee fails to renew a license within the timeframe required by the regulation.</p> <p>Box 2(b):</p> <p>(Lead Worker) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are hazardous materials removal workers (\$40,720).</p> <p>(Lead Supervisor) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are first line supervisors of construction trades and extraction workers (\$69,740).</p> <p>(Lead Inspector) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are construction and buildings inspectors (\$62,170).</p> <p>(Lead Risk Assessor) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are environmental engineers (\$100,240).</p> <p>(Lead Project Designer) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are environmental engineers (\$100,240).</p> <p>(Lead Contractor) This is the estimated value for the direct benefit of receiving the occupational license based on the national average annual pay for a construction company owner (\$72,195).</p> <p>(Accredited Lead Training Programs) The estimated direct benefit of receiving the training program approval is based on the national average annual pay for a private school owner (\$78,997).</p>
--	---

Impact on Local Partners

- (1) Describe the direct costs and benefits (as defined on page 1) for local partners in terms of real monetary costs and FTEs. Local partners include local or tribal governments, school divisions, or other local or regional authorities, boards, or commissions. If local partners are not affected, include a specific statement to that effect and a brief explanation of the rationale.
- (2) Quantitative Factors:
 - (a) Enter estimated dollar value of total (overall) direct costs described above.
 - (b) Enter estimated dollar value of total (overall) direct benefits described above.
- (3) Indirect Costs & Benefits: Describe any indirect benefits and costs (as defined on page 1) for local partners that are associated with all significant changes. If there are no indirect costs or benefits, include a specific statement to that effect.
- (4) Information Sources: describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why they are not.
- (5) Assistance: Identify the amount and source of assistance provided for compliance in both funding and training or other technical implementation assistance.
- (6) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Note: If any of the above information was included in Table 1, use the same information here.

Table 2: Impact on Local Partners

(1) Direct Costs & Benefits	No direct impact to local partners is anticipated as a result of the regulatory change. The licensure regulation does not impose direct costs on local government entities, and local government entities receive no direct benefits.
(2) Quantitative Factors	Estimated Dollar Amount
Direct Costs	(a) N/A
Direct Benefits	(b) N/A
(3) Indirect Costs & Benefits	There are no apparent indirect costs to local government entities resulting from the regulatory change. There are no apparent indirect benefits to local government entities resulting from the regulatory change.
(4) Information Sources	N/A

(5) Assistance	N/A
(6) Optional	N/A

Economic Impacts on Families

- (1) Describe the direct costs and benefits (as defined on page 1) to a typical family of three (average family size in Virginia according to the U. S. Census) arising from any proposed regulatory changes that would affect the costs of food, energy, housing, transportation, healthcare, and education. If families are not affected, include a specific statement to that effect and a brief explanation of the rationale.
- (2) Quantitative Factors:
 - (a) Enter estimated dollar value of direct costs.
 - (b) Enter estimated dollar value of direct benefits.
- (3) Indirect Costs & Benefits: Describe any indirect costs and benefits (as defined on page 1) to a typical family of three that are most likely to result from the proposed changes.
- (4) Information Sources: describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why not.
- (5) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Note: If any of the above information was included in Table 1, use the same information here.

Table 3: Impact on Families

(1) Direct Costs & Benefits	No direct impact to families is anticipated as a result of the regulatory change. The licensure regulation does not impose direct costs on families, and families receive no direct benefits.
(2) Quantitative Factors	Estimated Dollar Amount
Direct Costs	(a) N/A
Direct Benefits	(b) N/A
(3) Indirect Costs & Benefits	No indirect impact to families is anticipated as a result of the regulatory change.

(4) Information Sources	N/A
(5) Optional	N/A

Impacts on Small Businesses

- (1) Describe the direct costs and benefits (as defined on page 1) for small businesses. For purposes of this analysis, “small business” means the same as that term is defined in § 2.2-4007.1. If small businesses are not affected, include a specific statement to that effect and a brief explanation of the rationale.
- (2) Quantitative Factors:
 - (a) Enter estimated dollar value of direct costs.
 - (b) Enter estimated dollar value of direct benefits.
- (3) Indirect Costs & Benefits: Describe the indirect benefits and costs (as defined on page 1) for small businesses that are most likely to result from the proposed changes.
- (4) Alternatives: Add a qualitative discussion of any equally effective alternatives that would make the regulatory burden on small business more equitable compared to other affected business sectors, and how those alternatives were identified.
- (5) Information Sources: describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why not.
- (6) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Note: If any of the above information was included in Table 1, use the same information here.

Table 4: Impact on Small Businesses

(1) Direct Costs & Benefits	<p>Licenses for workers, supervisors, inspectors, risk assessors, and project designers are issued to individuals, and not to business entities.</p> <p>Licenses for contractors are issued to firms. Many of these firms may fall within the meaning of “small business” as defined in § 2.2-4007.1 of the Code of Virginia. Such entities would be directly impacted by the regulatory change.</p> <p>Training program approvals are issued to firms. Many of these firms may fall within the meaning of “small business” as defined in § 2.2-4007.1 of the Code of Virginia. Such entities would be directly impacted by the regulatory change.</p>
-----------------------------	--

	Licensed contractors and providers of approved training programs, would directly benefit from the regulatory action, as their annual license renewal fees will be reduced.
(2) Quantitative Factors	Estimated Dollar Amount
Direct Costs	(a) Please refer to Box 2(a) in Table 1a.
Direct Benefits	(b) Please refer to Box 2(b) in Table 1a.
(3) Indirect Costs & Benefits	Individuals who are licensed may be owners or employees of business entities that meet the definition of "small business" in § 2.2-4007.1 of the Code of Virginia. To the extent such business entities assume the costs for obtaining or maintaining a license, these entities would be indirectly affected.
(4) Alternatives	N/A
(5) Information Sources	N/A
(6) Optional	N/A

Changes to Number of Regulatory Requirements

For each individual VAC Chapter amended, repealed, or promulgated by this regulatory action, list (a) the initial requirement count, (b) the count of requirements that this regulatory package is adding, (c) the count of requirements that this regulatory package is reducing, (d) the net change in the number of requirements. This count should be based upon the text as written when this stage was presented for executive branch review. Five rows have been provided, add or delete rows as needed.

Table 5: Total Number of Requirements

Chapter number	Number of Requirements			
	Initial Count	Additions	Subtractions	Net Change
18VAC15-30	323	0	0	0

Office of Regulatory Management

Economic Review Form

Agency name	Virginia Board for Asbestos, Lead, and Home Inspectors
Virginia Administrative Code (VAC) Chapter citation(s)	18 VAC 15-20
VAC Chapter title(s)	Virginia Asbestos Licensing Regulations
Action title	2022 Asbestos and Lead Temporary Fee Reduction
Date this document prepared	December 16, 2022

Cost Benefit Analysis

Table 1a must be completed for all actions. Tables 1b and 1c must be completed for actions (or portions thereof) where the agency is exercising discretion, including those where some of the changes are mandated by state or federal law or regulation. Tables 1b and 1c are not needed if **all** changes are mandated, and the agency is not exercising any discretion. In that case, enter a statement to that effect.

- (8) Direct Costs & Benefits: Identify all specific, direct economic impacts (costs and/or benefits), anticipated to result from the regulatory change. (A direct impact is one that affects entities regulated by the agency and which directly results from the regulatory change itself, without any intervening steps or effects. For example, the direct impact of a regulatory fee change is the change in costs for these regulated entities.) When describing a particular economic impact, specify which new requirement or change in requirement creates the anticipated economic impact. Keep in mind that this is the proposed change versus the status quo. One bullet has been provided, add additional bullets as needed.
- (9) Quantitative Factors:
- (e) Enter estimated dollar value of total (overall) direct costs described above.
 - (f) Enter estimated dollar value of total (overall) direct benefits described above.
 - (g) Enter the present value of the direct costs based on the worksheet.
 - (h) Enter the present value of the direct benefits based on the worksheet.
- (10) Benefits-Costs Ratio: Calculate d divided by c OR enter it from the worksheet.
- (11) Net Benefit: Calculate d minus c OR enter it from the worksheet.
- (12) Indirect Costs & Benefits: Identify all specific, indirect economic impacts (costs and/or benefits), anticipated to result from the regulatory change. (An indirect impact is one that results from responses to the regulatory change, but which are not directly required by the regulation. Indirect impacts of a regulatory fee change on regulated entities could include a change in the prices they charge, changes in their operating procedures or employment levels, or decisions to enter or exit the regulated profession or market. Indirect impacts also include responses by other entities that have close economic ties to the regulated entities, such as suppliers or partners.) If there are no indirect costs or benefits, include a specific statement to that effect.

- (13) Information Sources: Describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why they are not.
- (14) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Table 1a: Costs and Benefits of the Proposed Changes (Primary Option)

<p>(1) Direct Costs & Benefits</p>	<ul style="list-style-type: none"> • Temporary reduction of fees for renewal of asbestos licenses and accredited asbestos training program approvals. <p>Direct Costs:</p> <ul style="list-style-type: none"> ○ Change reduces the cost of the renewal fee for asbestos worker, supervisor, inspector, management planner, project designer, and project monitor from \$45 to \$25. ○ Change reduces the cost of the renewal fee for asbestos analytical laboratory license from \$75 to \$40. ○ Change reduces the cost of the renewal fee for asbestos analytical laboratory branch office from \$55 to \$40. ○ Change reduces the cost of the renewal fee for an asbestos contractor license from \$70 to \$30. ○ Change reduces the cost of the renewal fee for an accredited asbestos training program approval from \$125 to \$40. <p>Other direct costs are unchanged.</p> <p>Direct Benefits: There is no additional direct benefit resulting from the change. Otherwise, the direct benefit is the occupational license or training program approval.</p> <ul style="list-style-type: none"> • Temporary reduction of fees for late renewal of asbestos licenses and accredited asbestos training program approvals. <p>Direct Costs:</p> <ul style="list-style-type: none"> ○ Change reduces the cost of the late renewal fee for asbestos worker, supervisor, inspector, management planner, project designer, and project monitor from \$80 to \$60. ○ Change reduces the cost of the late renewal fee for asbestos analytical laboratory license from \$110 to \$75. ○ Change reduces the cost of the late renewal fee for asbestos analytical laboratory branch office from \$90 to \$75. ○ Change reduces the cost of the renewal fee for an asbestos contractor license from \$105 to \$65. ○ Change reduces the cost of the renewal fee for an accredited asbestos training program approval from \$160 to \$75.
--	---

	Direct Benefits: There is no additional direct benefit resulting from the change. Otherwise, the direct benefit is the occupational license or training program approval.	
(2) Quantitative Factors	Estimated Dollar Amount	Present Value
Direct Costs	(a) \$2,210 (worker) \$2,495 (supervisor) \$1,950 (inspector) \$3,448 (planner) \$2,356 (designer) \$2,285 (monitor) \$3,316 (contractor) Undetermined (laboratory) \$1,275 (training program)	(c) \$1,988 (worker) \$2,255 (supervisor) \$1,759 (inspector) \$3,103 (planner) \$2,111 (designer) \$2,033 (monitor) \$2,986 (contractor) Undetermined (laboratory) \$1,253 (training program)
Direct Benefits	(b) \$407,200 (worker) \$697,400 (supervisor) \$621,700 (inspector) \$1,002,400 (planner) \$1,002,400 (designer) \$621,700 (monitor) \$721,950 (contractor) Undetermined (laboratory) \$789,970 (training program)	(d) \$357,770 (worker) \$612,743 (supervisor) \$546,232 (inspector) \$880,720 (planner) \$880,720 (designer) \$546,232 (monitor) \$634,313 (contractor) Undetermined (laboratory) \$694,076 (training program)
(3) Benefits-Costs Ratio	179.95 (worker) 271.77 (supervisor) 310.46 (inspector) 283.81 (planner) 417.25 (designer) 268.75 (monitor) 212.46 (contractor) Undetermined (laboratory) 553.79 (training program)	(4) Net Benefit \$355,782 (worker) \$610,489 (supervisor) \$544,473 (inspector) \$877,616 (planner) \$878,609 (designer) \$544,200 (monitor) \$631,328 (contractor) Undetermined (laboratory) \$692,823 (training program)
(5) Indirect Costs & Benefits	<p><u>Indirect Costs:</u> Indirect costs of the regulation are not anticipated to be impacted as a result of this regulatory change.</p> <p><u>Indirect Benefits:</u> The regulatory change will indirectly benefit DPOR because the Board will remain in compliance with the Callahan Act (§ 54.1-113 of the Code of Virginia). Those that utilize the services of asbestos licensees and accredited training programs may also indirectly benefit from the reduced costs assumed by regulants. Otherwise, indirect benefits of the regulation are not anticipated to be impacted as a result of this regulatory change.</p>	

(6) Information Sources	<p>Box 2(a):</p> <p>Initial licensure and license renewal of individual licenses. Average training cost for individual licensees is derived from training fees posted online by the following Board-approved training providers who provide initial and refresher training for all licensed disciplines:</p> <p>Applied Laboratory Services: https://stokesea.com/training-schedule/ (Accessed 12/1/22).</p> <p>France Environmental: https://www.franceenv.com/training-center/#asbestos-training (Accessed 12/1/22).</p> <p>The EI Group, Inc.: https://ei1.com/services/training/asbestos-courses/ (Accessed 12/1/22).</p> <p>Initial licensure and renewal of asbestos contractor licenses.</p> <ul style="list-style-type: none"> • SCC fees obtained from State Corporation Commission website: https://www.scc.virginia.gov/pages/Forms-and-Fees (Accessed 12/12/22). • Fees for licensure and examination by the Board for Contractors obtained from Board for Contractors website and 18VAC50-22: https://www.dpor.virginia.gov/Boards/Contractors https://law.lis.virginia.gov/admincode/title18/agency50/chapter22/ • Average training cost for contractor pre-license education is derived from training fees posted online by the following training providers approved by the Board for Contractors who provide pre-licensure education: <ul style="list-style-type: none"> ○ Contractor Training Center LLC: https://virginiaexamtraining.com/ ○ Brightpoint Community College: https://ccwatraining.org/ ○ Tidewater Community College: https://tcc.augusoft.net/ ○ Wytheville Community College: http://www.wcc.vccs.edu/workforce ○ Germanna Community College: https://www.germannna.edu/workforce/ ○ American Contractors Exam Services: https://www.examprep.org/ ○ Virginia Peninsula Community College: https://www.vpcc.edu/workforce

	<ul style="list-style-type: none"> ○ New River Community College: https://www.nr.edu/workforce/ ○ Across VA Contractor Education & Exam Prep: http://www.avaceducation.com/ <p>Initial licensure and renewal of asbestos analytical laboratory licenses.</p> <ul style="list-style-type: none"> ● SCC fees obtained from State Corporation Commission website: https://www.scc.virginia.gov/pages/Forms-and-Fees (Accessed 12/12/22). ● Fees for third-party accreditation obtained from the following: <ul style="list-style-type: none"> ○ NVLAP: https://www.nist.gov/nvlap/nvlap-fee-structure ○ BAPAT: https://www.aihapat.org/programs/bulk-asbestos-proficiency-analytical-testing-bapat-program ○ IHPAT: https://www.aihapat.org/programs/industrial-hygiene-proficiency-analytical-testing-ihpat-program ○ AIHA: https://www.aiharegistries.org/asbestos-analysts-registry/aar-forms-and-fees <p>Box 2(b):</p> <p>For individual licenses. May 2021 State Occupational Employment and Wage Estimates Virginia, United States Bureau of Labor Statistics (https://www.bls.gov/oes/current/oes_va.htm).</p> <p>For contractor licenses. ZipRecuriter website (https://www.ziprecruiter.com/Salaries/Construction-company-owner-Salary) (Accessed on 12/12/22).</p> <p>For accredited training programs. GlassDoor website https://www.glassdoor.com/Salaries/private-school-owner-salary-SRCH_KO0,20.htm (Accessed on 12/13/22).</p>
(7) Optional	<p>Box 2(a):</p> <p>(Asbestos Worker)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$563. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial worker training (\$483).</p> <p>The estimated direct cost to renew a license is \$183. Direct costs are (i) the renewal fee (\$25); and (ii) the average fee for refresher worker training (\$158).</p> <p>(Asbestos Supervisor)</p>

The estimated direct cost to an individual to obtain an initial license is \$713. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial supervisor training (\$633).

The estimated direct cost to renew a license is \$198. Direct costs are (i) the renewal fee (\$25); and (ii) the average fee for refresher supervisor training (\$173).

(Asbestos Inspector)

The estimated direct cost to an individual to obtain an initial license is \$537. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial inspector training (\$457).

The estimated direct cost to renew a license is \$157. Direct costs are (i) the renewal fee (\$25); and (ii) the average fee for refresher inspector training (\$132).

(Asbestos Management Planner)

The estimated direct cost to an individual to obtain an initial license is \$892. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial planner training (\$355), and (iii) the average fee for initial inspector training (\$457).

The estimated direct cost to renew a license is \$284. Direct costs are (i) the renewal fee (\$25); (ii) the average fee for refresher planner training (\$127); and (iii) the average fee for refresher inspector training (\$132).

(Asbestos Project Designer)

The estimated direct cost to an individual to obtain an initial license is \$538. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial designer training (\$458).

The estimated direct cost to renew a license is \$202. Direct costs are (i) the renewal fee (\$25); and (ii) the average fee for refresher designer training (\$177).

(Asbestos Project Monitor)

The estimated direct cost to an individual to obtain an initial license is \$413. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial monitor training (\$333).

The estimated direct cost to renew a license is \$208. Direct costs are (i) the renewal fee (\$25); and (ii) the average fee for refresher monitor training (\$183).

(Asbestos Contractor)

The estimated direct cost to a firm to obtain an initial license is \$871. Direct costs are (i) the application fee (\$110); (ii) average fee to register a corporation with the SCC (\$98); and (iii) the cost to obtain a contractor license from the Board for Contractors (\$663).

Under the Board's regulation, corporations and limited liability companies must be registered with the SCC. The average SCC registration fee is based on (i) a \$85 fee to register a stock corporation of up to 25,000 shares (\$50 charter fee + \$25 filing fee + \$10 name reservation fee); and (ii) a \$110 fee to register a limited liability company (\$100 formation fee + \$10 name reservation fee).

Under the Board's regulation, an asbestos contractor must also hold a valid license issued by the Board for Contractors with an asbestos contracting specialty. The estimated cost for obtaining a contractor license is based on (i) the application fee for a Class A contractor license (\$385); (ii) the average cost of pre-license education (\$193); and (iii) the cost to take the Class A license examination (\$85).

The estimated direct cost to a firm to renew an asbestos license is at least \$165 annually. As licensees are also regulants of the Board for Contractors, a licensee must renew its contractor license with that board every two years. Accordingly, the direct cost to renew a license will increase during years a licensee must also renew a contractor license. Direct costs are (i) the renewal fee (\$30); (ii) estimated fee to renew registration of a corporation with the SCC (\$135); and (iii) the cost to renew a contractor license from the Board for Contractors (\$240).

Under the Board's regulation, corporations and limited liability companies must be registered with the SCC. The estimated SCC annual filing fee is based on (i) a \$220 annual registration fee for a stock corporation of up to 25,000 shares; and (ii) a \$50 annual fee for a limited liability company.

Under the licensure regulations of the Board for Contractors, a Class A contractor must pay a renewal fee of \$240 every two years.

(Asbestos Analytical Laboratory)

The estimated direct costs to a firm to obtain an asbestos analytical laboratory license include (i) the application fee (\$120); (ii) average fee to

register a corporation with the SCC (\$98); and the cost to obtain third-party credentialing for the type of analysis the laboratory is seeking to perform.

SCC registration fees are outlined in the discussion of asbestos contractor direct costs above.

Under the Board's regulations, a laboratory can be licensed to perform three types of analysis: polarized light microscopy (PLM); phase contrast microscopy (PCM); and transmission electron microscopy (TEM). The qualifications for each type of analysis vary depending on the type of analysis the laboratory will perform, but for each type of analysis, the Board's regulations require the laboratory to be credentialed by a third-party credentialing organization.

For PLM: the laboratory may be accredited under the (i) National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute of Standards and Technology; (ii) Bulk Analysis Proficiency Analytical Testing Program (BAPAT) of AIHA Proficiency Analytical Testing Programs; or (iii) Industrial Hygiene Laboratory Accreditation Program (IHLAP) of AIHA Laboratory Accreditation Programs.

For PCM: the laboratory may be accredited under the (i) IHLAP; or (ii) Industrial Hygiene Proficiency Analytical Testing Program (IHPAT) of AIHA Proficiency Analytical Testing Programs; or must have all of its analysts rated by the Asbestos Analysts Registry (AAR) of the AIHA Registry Programs. In addition, all analysts at the laboratory must have completed National Institute for Occupational Safety and Health (NIOSH) course 582 or an equivalent.

For TEM: the laboratory must be accredited under NVLAP.

The costs for accrediting by these organizations varies. Accrediting generally requires an application fee and subsequent fees for the accrediting organization to perform an assessment of the laboratory.

According to the published fee schedule for NVLAP, the base administrative fee is \$5,225. However, onsite assessment fees range from \$5,040 to \$22,500.

According to the published fee schedule for AIHA, IHPAT accreditation for asbestos is estimated at \$2,164; and BAPAT accreditation is estimated at \$2,823. Estimated fees are based on the average fee calculated from the published fee schedule.

According to the published fee schedule for AAR, the fee for initial registration is estimated at \$2,080; with an additional \$220 per analyst that

	<p>is to be registered, and an estimated testing fee of \$1,026 for every five analysts to be registered. Estimated testing fees are based on the average fee calculated from the published fee schedule.</p> <p>Under the Board’s regulation, laboratories with branch offices must register with the Board. Direct costs include the application fee (\$100). The branch office must also be credentialed as described above depending on the type of analysis the branch office laboratory will perform.</p> <p>The estimated direct costs to a firm to renew an asbestos analytical laboratory license include (i) the application fee (\$40); (ii) average fee to register a corporation with the SCC (\$135); and the cost to renew third-party credentialing for the type of analysis the laboratory is seeking to perform. SCC renewal fees are outlined in the discussion of asbestos contractor direct costs above. Accreditation renewal fees vary depending on the credentialing organization.</p> <p>Laboratories with branch offices must pay a renewal fee of \$40 for each branch office.</p> <p>(Accredited Asbestos Training Program)</p> <p>The estimated direct cost to a firm to obtain an initial approval as a training program is \$1,115. The training program application fee is \$500 per day of training. The average length of a training program is 2.23⁴ days.</p> <p>The estimated direct cost to a firm to renew approval as a training program is \$40, which reflects the renewal fee.</p> <p>Licenses for individuals (worker supervisor, inspector, management planner, project designer, and project monitor), contractors, and analytical laboratories are valid for a period of one year. Calculation of direct costs includes the direct costs for initial licensure (Year 0), and direct costs for renewal of a license every succeeding year.</p> <p>Training program approvals are valid for a period of 24 months.</p> <p>Calculation of direct costs does not include the late renewal fee that would be due if a licensee fails to renew a license within the timeframe required by the regulation.</p>
--	---

⁴ Length for initial training program: Worker – four (4) days; Supervisor – five (5) days; Inspector – three (3) days; Management Planner – two (2) days; Project Designer – three (3) days; Project Monitor Comprehensive – five (5) days; Project Monitor – two (2) days. Length for refresher training program: Worker – one (1) day; Supervisor – one (1) day; Inspector – one-half (.5) day; Management Planner – one-half (.5) day; Project Designer – one (1) day; Project Monitor – one (1) day.

	<p>Box 2(b):</p> <p>(Asbestos Worker) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are hazardous materials removal workers (\$40,720).</p> <p>(Asbestos Supervisor) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are first line supervisors of construction trades and extraction workers (\$69,740).</p> <p>(Asbestos Inspector) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are construction and buildings inspectors (\$62,170).</p> <p>(Asbestos Management Planner) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are environmental engineers (\$100,240).</p> <p>(Asbestos Project Designer) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are environmental engineers (\$100,240).</p> <p>(Asbestos Project Monitor) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are construction and buildings inspectors (\$62,170).</p> <p>(Asbestos Contractor) This is the estimated value for the direct benefit of receiving the occupational license based on the national average annual pay for a construction company owner (\$72,195).</p> <p>(Asbestos Analytical Laboratory) Information to determine an estimated direct benefit of the license was not readily obtainable.</p> <p>(Accredited Asbestos Training Programs) The estimated direct benefit of receiving the training program approval is based on the national average annual pay for a private school owner (\$78,997).</p>
--	---

Table 1b: Costs and Benefits under the Status Quo (No change to the regulation)

This table addresses current requirements and the implications of not making any changes. In other words, describe the costs and benefits of maintaining the current regulatory requirements as is.

<p>(1) Direct Costs & Benefits</p>	<ul style="list-style-type: none">● Direct costs and benefits of licensure based on current requirements. <p>Direct Costs:</p> <ul style="list-style-type: none">● Individual licenses (worker, supervisor, inspector, management planner, project designer, project monitor). <p>Direct costs for an initial individual license are (i) the application fee; and (ii) the cost of the initial training for the discipline. Direct costs for renewal of a license are (i) the application fee; and (ii) cost to complete refresher training.</p> <ul style="list-style-type: none">● Asbestos contractor licenses. <p>Direct costs for an initial license are (i) the application fee; (ii) SCC fees; and (iii) cost to obtain a contractor license from the Board for Contractors. Direct costs for renewal of a contractor license are (i) the application fee; (ii) SCC fees; and (iii) cost to obtain renewal of a contractor license from the Board for Contractors.</p> <ul style="list-style-type: none">● Asbestos analytical laboratory licenses. <p>The estimated direct costs to a firm to obtain an asbestos analytical laboratory license include (i) the application fee; (ii) SCC fees; and (iii) the cost to obtain third-party credentialing for the type of analysis the laboratory is seeking to perform.</p> <p>Laboratories with branch offices must register with the Board. Direct costs include the application fee. The branch office must also be credentialed as described above depending on the type of analysis the branch office laboratory will perform.</p> <p>The estimated direct costs to a firm to renew an asbestos analytical laboratory license include (i) the application fee; (ii) SCC fees; and (iii) the cost to renew third-party credentialing for the type of analysis the laboratory is seeking to perform.</p> <p>Laboratories with branch offices must pay a renewal fee for each branch office.</p> <ul style="list-style-type: none">● Accredited asbestos training program approval. <p>Direct cost for training providers to receive approval from the Board is the training program application approval fee. The direct cost to a firm to renew approval as a training program is the renewal fee.</p>
--	--

	Direct Benefits: The direct benefit is the occupational license or training program approval.	
(2) Quantitative Factors	Estimated Dollar Amount	Present Value
Direct Costs	(a) \$2,390 (worker) \$2,675 (supervisor) \$2,130 (inspector) \$3,628 (planner) \$2,536 (designer) \$2,465 (monitor) \$3,676 (contractor) Undetermined (laboratory) \$1,615 (training program)	(c) \$2,144 (worker) \$2,410 (supervisor) \$1,915 (inspector) \$3,259 (planner) \$2,267 (designer) \$2,188 (monitor) \$3,297 (contractor) Undetermined (laboratory) \$1,547 (training program)
Direct Benefits	(b) \$407,200 (worker) \$697,400 (supervisor) \$621,700 (inspector) \$1,002,400 (planner) \$1,002,400 (designer) \$621,700 (monitor) \$721,950 (contractor) Undetermined (laboratory) 789,970 (training program)	(d) \$357,770 (worker) \$612,743 (supervisor) \$546,232 (inspector) \$880,720 (planner) \$880,720 (designer) \$546,232 (monitor) \$634,313 (contractor) Undetermined (laboratory) \$694,076 (training program)
(3) Benefits-Costs Ratio	166.877498 (worker) 254.2110932 (supervisor) 285.2178049 (inspector) 270.244168 (planner) 388.5785444 (designer) 249.6226101 (monitor) 192.3871113 (contractor) Undetermined (laboratory) 448.5878605 (training program)	(4) Net Benefit \$355,626 (worker) \$610,333 (supervisor) \$544,317 (inspector) \$877,461 (planner) \$878,453 (designer) \$544,044 (monitor) \$631,016 (contractor) Undetermined (laboratory) \$692,529 (training program)
(5) Indirect Costs & Benefits	<u>Indirect Costs</u> Indirect costs include, as applicable: Individual licenses. <ul style="list-style-type: none"> • Time costs related to taking initial asbestos training. • Travel and incidental costs to complete required initial training. 	

- Administrative costs to complete the license application, including costs to obtain verification of education (if applicable) and obtain verification of experience (if applicable).
- Time costs to complete the license application and obtain supporting documentation.
- Time costs of third parties, such as those verifying experience or providing transcripts.
- Time costs to attend and complete required refresher training.
- Travel and incidental costs to complete required refresher training.
- Administrative costs to submit license renewal.
- Time costs to submit license renewal.

Contractor licenses.

- Time costs related to preparing for and taking Board for Contractors pre-license education.
- Time costs related to preparing for and taking Board for Contractors license examination.
- Travel and incidental costs to complete Board for Contractors pre-license education and license examination.
- Administrative costs to register firm with SCC.
- Time costs to register firm with SCC.
- Administrative costs to complete license application.
- Time costs to complete license application.
- Administrative costs to submit license renewal.
- Time costs to submit license renewal.
- Administrative costs to maintain SCC registration
- Time costs to maintain SCC registration.
- Administrative costs to comply with asbestos abatement standards, including notifications to building owners.
- Time costs to comply with asbestos abatement standards, including notification to building owners.

Analytical laboratory licenses.

- Time costs related to preparing for and obtaining third-party credentialing.
- Administrative costs related to preparing for and obtaining third-party credentialing.
- Administrative costs to register firm with SCC.
- Time costs to register firm with SCC.
- Administrative costs to complete license application.
- Time costs to complete license application.
- Administrative costs to submit license renewal.
- Time costs to submit license renewal.
- Administrative costs to maintain SCC registration
- Time costs to maintain SCC registration.

	<ul style="list-style-type: none"> • Administrative costs related to renewing/maintaining third-party credentialing. • Time costs related to renewing/maintaining third-party credentialing. <p>Accredited training programs.</p> <ul style="list-style-type: none"> • Time costs related to preparing training program documentation and materials. • Administrative costs related to preparing training program documentation and materials. • Time costs to develop examination. • Administrative costs to develop examination. • Costs to third-parties to develop examination (if used). • Administrative costs to complete training program approval application. • Time costs to complete training program approval application. • Administrative costs to submit training program renewal. • Time costs to submit training program renewal. • Administrative costs related to record-keeping requirements. • Time costs related to record-keeping requirements. • Administrative costs to provide the Board with notifications of training schedules and participant lists. • Time costs to provide the Board with notifications of training schedules and participant lists. • Administrative costs to maintain approval, including changes to curriculum, examination, materials, and instructors. • Time costs to maintain approval, including changes to curriculum, examination, materials, and instructors. <p><u>Indirect Benefits</u></p> <p>Indirect benefits include:</p> <ul style="list-style-type: none"> • The reduced risk of environmental damage caused by asbestos that is not properly remediated, and associated remediation costs. • The reduced risk of harm to public health resulting from exposure to disturbed asbestos-containing material that was not properly contained/remediated, and associated mitigation costs. • The reduced risk of diseases (e.g. asbestosis and mesothelioma) that are related to asbestos exposure, and associated costs that might be assumed by the public health system.
(6) Information Sources	Please refer to Box #6 of Table 1a.

<p>(7) Optional</p>	<p>Box 2(a):</p> <p>(Asbestos Worker)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$563. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial worker training (\$483).</p> <p>The estimated direct cost to renew a license is \$203. Direct costs are (i) the renewal fee (\$45); and (ii) the average fee for refresher worker training (\$158).</p> <p>(Asbestos Supervisor)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$713. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial supervisor training (\$633).</p> <p>The estimated direct cost to renew a license is \$218. Direct costs are (i) the renewal fee (\$45); and (ii) the average fee for refresher supervisor training (\$173).</p> <p>(Asbestos Inspector)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$537. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial inspector training (\$457).</p> <p>The estimated direct cost to renew a license is \$177. Direct costs are (i) the renewal fee (\$45); and (ii) the average fee for refresher inspector training (\$132).</p> <p>(Asbestos Management Planner)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$892. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial planner training (\$355); and (iii) the average fee for initial inspector training (\$457).</p> <p>The estimated direct cost to renew a license is \$304. Direct costs are (i) the renewal fee (\$45); (ii) the average fee for refresher planner training (\$127); and (iii) the average fee for refresher inspector training (\$132).</p> <p>(Asbestos Project Designer)</p>
---------------------	--

The estimated direct cost to an individual to obtain an initial license is \$538. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial designer training (\$458).

The estimated direct cost to renew a license is \$222. Direct costs are (i) the renewal fee (\$45); and (ii) the average fee for refresher designer training (\$177).

(Asbestos Project Monitor)

The estimated direct cost to an individual to obtain an initial license is \$413. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial monitor training (\$333).

The estimated direct cost to renew a license is \$228. Direct costs are (i) the renewal fee (\$45); and (ii) the average fee for refresher monitor training (\$183).

(Asbestos Contractor)

The estimated direct cost to a firm to obtain an initial license is \$871. Direct costs are (i) the application fee (\$110); (ii) average fee to register a corporation with the SCC (\$98); and (iii) the cost to obtain a contractor license from the Board for Contractors (\$663).

Under the Board's regulation, corporations and limited liability companies must be registered with the SCC. The average SCC registration fee is based on (i) a \$85 fee to register a stock corporation of up to 25,000 shares (\$50 charter fee + \$25 filing fee + \$10 name reservation fee); and (ii) a \$110 fee to register a limited liability company (\$100 formation fee + \$10 name reservation fee).

Under the Board's regulation, an asbestos contractor must also hold a valid license issued by the Board for Contractors with an asbestos contracting specialty. The estimated cost for obtaining a contractor license is based on (i) the application fee for a Class A contractor license (\$385); (ii) the average cost of pre-license education (\$193); and (iii) the cost to take the Class A license examination (\$85).

The estimated direct cost to a firm to renew an asbestos license is at least \$205 annually. As licensees are also regulants of the Board for Contractors, a licensee must renew its contractor license with that board every two years. Accordingly, the direct cost to renew a license will increase during years a licensee must also renew a contractor license. Direct costs are (i) the renewal fee (\$70); (ii) estimated fee to renew registration of a corporation

with the SCC (\$135); and (iii) the cost to renew a contractor license from the Board for Contractors (\$240).

Under the Board's regulation, corporations and limited liability companies must be registered with the SCC. The estimated SCC annual filing fee is an average based on (i) a \$220 annual registration fee for a stock corporation of up to 25,000 shares; and (ii) a \$50 annual fee for a limited liability company.

Under the licensure regulations of the Board for Contractors, a Class A contractor must pay a renewal fee of \$240 every two years.

(Asbestos Analytical Laboratory)

The estimated direct costs to a firm to obtain an asbestos analytical laboratory license include (i) the application fee (\$120); (ii) average fee to register a corporation with the SCC (\$98); and the cost to obtain third-party credentialing for the type of analysis the laboratory is seeking to perform. SCC registration fees are outlined in the discussion of asbestos contractor direct costs above.

Under the Board's regulations, a laboratory can be licensed to perform three types of analysis: polarized light microscopy (PLM); phase contrast microscopy (PCM); and transmission electron microscopy (TEM). The qualifications for each type of analysis vary depending on the type of analysis the laboratory will perform, but for each type of analysis, the Board's regulations require the laboratory to be credentialed by a third-party credentialing organization.

For PLM: the laboratory may be accredited under the (i) National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute of Standards and Technology; (ii) Bulk Analysis Proficiency Analytical Testing Program (BAPAT) of AIHA Proficiency Analytical Testing Programs; or (iii) Industrial Hygiene Laboratory Accreditation Program (IHLAP) of AIHA Laboratory Accreditation Programs.

For PCM: the laboratory may be accredited under the (i) IHLAP; or (ii) Industrial Hygiene Proficiency Analytical Testing Program (IHPAT) of AIHA Proficiency Analytical Testing Programs; or must have all of its analysts rated by the Asbestos Analysts Registry (AAR) of the AIHA Registry Programs. In addition, all analysts at the laboratory must have completed National Institute for Occupational Safety and Health (NIOSH) course 582 or an equivalent.

For TEM: the laboratory must be accredited under NVLAP.

	<p>The costs for accrediting by these organizations varies. Accrediting generally requires an application fee and subsequent fees for the accrediting organization to perform an assessment of the laboratory.</p> <p>According to the published fee schedule for NVLAP, the base administrative fee is \$5,225. However, onsite assessment fees range from \$5,040 to \$22,500.</p> <p>According to the published fee schedule for AIHA, IHPAT accreditation for asbestos is estimated at \$2,164; and BAPAT accreditation is estimated at \$2,823. Estimated fees are based on the average fee calculated from the published fee schedule.</p> <p>According to the published fee schedule for AAR, the fee for initial registration is estimated at \$2,080; with an additional \$220 per analyst that is to be registered, and an estimated testing fee of \$1,026 for every five analysts to be registered. Estimated testing fees are based on the average fee calculated from the published fee schedule.</p> <p>Under the Board’s regulation, laboratories with branch offices must register with the Board. Direct costs include the application fee (\$100). The branch office must also be credentialed as described above depending on the type of analysis the branch office laboratory will perform.</p> <p>The estimated direct costs to a firm to renew an asbestos analytical laboratory license include (i) the application fee (\$75); (ii) average fee to register a corporation with the SCC (\$135); and the cost to renew third-party credentialing for the type of analysis the laboratory is seeking to perform. SCC renewal fees are outlined in the discussion of asbestos contractor direct costs above. Accreditation renewal fees vary depending on the credentialing organization.</p> <p>Laboratories with branch offices must pay a renewal fee of \$55 for each branch office.</p> <p>(Accredited Asbestos Training Program)</p> <p>The estimated direct cost to a firm to obtain an initial approval as a training program is \$1,115. The training program application fee is \$500 per day of training. The average length of a training program is 2.23⁵ days.</p>
--	--

⁵ Length for initial training program: Worker – four (4) days; Supervisor – five (5) days; Inspector – three (3) days; Management Planner – two (2) days; Project Designer – three (3) days; Project Monitor Comprehensive – five (5) days; Project Monitor – two (2) days. Length for refresher training program: Worker – one (1) day; Supervisor – one (1) day; Inspector – one-half (.5) day; Management Planner – one-half (.5) day; Project Designer – one (1) day; Project Monitor – one (1) day.

<p>The estimated direct cost to a firm to renew approval as a training program is \$125, which reflects the renewal fee.</p> <p>Licenses for individuals (worker supervisor, inspector, management planner, project designer, and project monitor), contractors, and analytical laboratories are valid for a period of one year. Calculation of direct costs includes the direct costs for initial licensure (Year 0), and direct costs for renewal of a license every succeeding year.</p> <p>Training program approvals are valid for a period of 24 months.</p> <p>Calculation of direct costs does not include the late renewal fee that would be due if a licensee fails to renew a license within the timeframe required by the regulation.</p> <p>Box 2(b):</p> <p>(Asbestos Worker) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are hazardous materials removal workers (\$40,720).</p> <p>(Asbestos Supervisor) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are first line supervisors of construction trades and extraction workers (\$69,740).</p> <p>(Asbestos Inspector) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are construction and buildings inspectors (\$62,170).</p> <p>(Asbestos Management Planner) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are environmental engineers (\$100,240).</p> <p>(Asbestos Project Designer) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are environmental engineers (\$100,240).</p> <p>(Asbestos Project Monitor) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are construction and buildings inspectors (\$62,170).</p> <p>(Asbestos Contractor) This is the estimated value for the direct benefit of receiving the occupational license based on the national average annual pay for a construction company owner (\$72,195).</p>

	<p>(Asbestos Analytical Laboratory) Information to determine an estimated direct benefit of the license was not readily obtainable.</p> <p>(Accredited Asbestos Training Programs) The estimated direct benefit of receiving the training program approval is based on the national average annual pay for a private school owner (\$78,997).</p>
--	---

Table 1c: Costs and Benefits under an Alternative Approach

This table addresses an alternative approach to accomplishing the objectives with different requirements. These alternative approaches may include the use of reasonably available alternatives in lieu of regulation, or information disclosure requirements or performance standards instead of regulatory mandates.

<p>(1) Direct Costs & Benefits</p>	<ul style="list-style-type: none"> • An alternative approach would be to revert to the reduced renewal fee schedule that was applicable to licenses that expired after February 1, 2020, and before February 1, 2021. <p>Direct Costs:</p> <ul style="list-style-type: none"> ○ Alternative would reduce the cost of the renewal fee for asbestos worker, supervisor, inspector, management planner, project designer, and project monitor from \$45 to \$40. ○ Alternative would reduce the cost of the renewal fee for asbestos analytical laboratory license from \$75 to \$65. ○ Cost of the renewal fee for asbestos analytical laboratory branch office would be \$55. ○ Alternative would reduce the cost of the renewal fee for an asbestos contractor license from \$70 to \$60. ○ Alternative would reduce the cost of the renewal fee for an accredited asbestos training program approval from \$125 to \$75. <p>Other direct costs would be unchanged.</p> <p>Direct Benefits: There would be no additional direct benefit resulting from the change. Otherwise, the direct benefit is the occupational license or training program approval.</p> <p>The alternative approach described above, though beneficial to licensees and approved training program providers, would not be a viable approach as it would likely result in the Board being out of compliance with the Callahan Act.</p>
--	---

(2) Quantitative Factors	Estimated Dollar Amount	Present Value	
Direct Costs	(a) \$2,345 (worker) \$2,630 (supervisor) \$2,085 (inspector) \$3,583 (planner) \$2,941 (designer) \$2,420 (monitor) \$3,586 (contractor) Undetermined (laboratory) \$1,415 (training program)	(c) \$2,105 (worker) \$2,371 (supervisor) \$1,876 (inspector) \$3,220 (planner) \$2,228 (designer) \$2,149 (monitor) \$3,219 (contractor) Undetermined (laboratory) \$1,374 (training program)	
Direct Benefits	(b) \$407,200 (worker) \$697,400 (supervisor) \$621,700 (inspector) \$1,002,400 (planner) \$1,002,400 (designer) \$621,700 (monitor) \$721,950 (contractor) Undetermined (laboratory) \$789,970 (training program)	(d) \$357,770 (worker) \$612,743 (supervisor) \$546,232 (inspector) \$880,720 (planner) \$880,720 (designer) \$546,232 (monitor) \$634,313 (contractor) Undetermined (laboratory) \$694,076 (training program)	
(3) Benefits-Costs Ratio	169.96 (worker) 258.38 (supervisor) 291.14 (inspector) 273.51 (planner) 395.37 (designer) 254.14 (monitor) 197.04 (contractor) Undetermined (laboratory) 505.02 (training program)	(4) Net Benefit	\$355,665 (worker) \$610,372 (supervisor) \$544,356 (inspector) \$877,500 (planner) \$878,492 (designer) \$544,083 (monitor) \$631,094 (contractor) Undetermined (laboratory) \$692,702 (training program)
(5) Indirect Costs & Benefits	<p><u>Indirect Costs:</u> Indirect costs of the regulation are not anticipated to be impacted as a result of this possible alternative.</p> <p>However, there would be an indirect cost to DPOR because the Board would be out of compliance with the Callahan Act (§ 54.1-113 of the Code of Virginia).</p> <p><u>Indirect Benefits:</u> Those that utilize the services of asbestos licensees and accredited training programs may indirectly benefit from the reduced costs assumed by regulants. Otherwise, indirect benefits of the regulation are not anticipated to be impacted as a result of this possible alternative.</p>		

(6) Information Sources	Please refer to Box 6 of Table 1a.
(7) Optional	<p>Box 2(a):</p> <p>(Asbestos Worker)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$563. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial worker training (\$483).</p> <p>The estimated direct cost to renew a license is \$198. Direct costs are (i) the renewal fee (\$40); and (ii) the average fee for refresher worker training (\$158).</p> <p>(Asbestos Supervisor)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$713. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial supervisor training (\$633).</p> <p>The estimated direct cost to renew a license is \$213. Direct costs are (i) the renewal fee (\$40); and (ii) the average fee for refresher supervisor training (\$173).</p> <p>(Asbestos Inspector)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$537. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial inspector training (\$457).</p> <p>The estimated direct cost to renew a license is \$172. Direct costs are (i) the renewal fee (\$40); and (ii) the average fee for refresher inspector training (\$132).</p> <p>(Asbestos Management Planner)</p> <p>The estimated direct cost to an individual to obtain an initial license is \$892. Direct costs are (i) the application fee (\$80); (ii) the average fee for initial planner training (\$355); and (iii) the average fee for initial inspector training (\$457).</p> <p>The estimated direct cost to renew a license is \$299. Direct costs are (i) the renewal fee (\$40); (ii) the average fee for refresher planner training (\$127); and (iii) the average fee for refresher inspector training (\$132).</p>

(Asbestos Project Designer)

The estimated direct cost to an individual to obtain an initial license is \$538. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial designer training (\$458).

The estimated direct cost to renew a license is \$217. Direct costs are (i) the renewal fee (\$40); and (ii) the average fee for refresher designer training (\$177).

(Asbestos Project Monitor)

The estimated direct cost to an individual to obtain an initial license is \$413. Direct costs are (i) the application fee (\$80); and (ii) the average fee for initial monitor training (\$333).

The estimated direct cost to renew a license is \$223. Direct costs are (i) the renewal fee (\$40); and (ii) the average fee for refresher monitor training (\$183).

(Asbestos Contractor)

The estimated direct cost to a firm to obtain an initial license is \$871. Direct costs are (i) the application fee (\$110); (ii) average fee to register a corporation with the SCC (\$98); and (iii) the cost to obtain a contractor license from the Board for Contractors (\$663).

Under the Board's regulation, corporations and limited liability companies must be registered with the SCC. The average SCC registration fee is based on (i) a \$85 fee to register a stock corporation of up to 25,000 shares (\$50 charter fee + \$25 filing fee + \$10 name reservation fee); and (ii) a \$110 fee to register a limited liability company (\$100 formation fee + \$10 name reservation fee).

Under the Board's regulation, an asbestos contractor must also hold a valid license issued by the Board for Contractors with an asbestos contracting specialty. The estimated cost for obtaining a contractor license is based on (i) the application fee for a Class A contractor license (\$385); (ii) the average cost of pre-license education (\$193); and (iii) the cost to take the Class A license examination (\$85).

The estimated direct cost to a firm to renew an asbestos license is at least \$195 annually. As licensees are also regulants of the Board for Contractors, a licensee must renew its contractor license with that board every two years. Accordingly, the direct cost to renew a license will increase during years a licensee must also renew a contractor license. Direct costs are (i) the

renewal fee (\$60); (ii) estimated fee to renew registration of a corporation with the SCC (\$135); and (iii) the cost to renew a contractor license from the Board for Contractors (\$240).

Under the Board's regulation, corporations and limited liability companies must be registered with the SCC. The estimated SCC annual filing fee is based on (i) a \$220 annual registration fee for a stock corporation of up to 25,000 shares; and (ii) a \$50 annual fee for a limited liability company.

Under the licensure regulations of the Board for Contractors, a Class A contractor must pay a renewal fee of \$240 every two years.

(Asbestos Analytical Laboratory)

The estimated direct costs to a firm to obtain an asbestos analytical laboratory license include (i) the application fee (\$120); (ii) average fee to register a corporation with the SCC (\$98); and the cost to obtain third-party credentialing for the type of analysis the laboratory is seeking to perform.

Under the Board's regulations, a laboratory can be licensed to perform three types of analysis: polarized light microscopy (PLM); phase contrast microscopy (PCM); and transmission electron microscopy (TEM). The qualifications for each type of analysis vary depending on the type of analysis the laboratory will perform, but for each type of analysis, the Board's regulations require the laboratory to be credentialed by a third-party credentialing organization.

For PLM: the laboratory may be accredited under the (i) National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute of Standards and Technology; (ii) Bulk Analysis Proficiency Analytical Testing Program (BAPAT) of AIHA Proficiency Analytical Testing Programs; or (iii) Industrial Hygiene Laboratory Accreditation Program (IHLAP) of AIHA Laboratory Accreditation Programs.

For PCM: the laboratory may be accredited under the (i) IHLAP; or (ii) Industrial Hygiene Proficiency Analytical Testing Program (IHPAT) of AIHA Proficiency Analytical Testing Programs; or must have all of its analysts rated by the Asbestos Analysts Registry (AAR) of the AIHA Registry Programs. In addition, all analysts at the laboratory must have completed National Institute for Occupational Safety and Health (NIOSH) course 582 or an equivalent.

For TEM: the laboratory must be accredited under NVLAP.

	<p>The costs for accrediting by these organizations varies. Accrediting generally requires an application fee and subsequent fees for the accrediting organization to perform an assessment of the laboratory.</p> <p>According to the published fee schedule for NVLAP, the base administrative fee is \$5,225. However, onsite assessment fees range from \$5,040 to \$22,500.</p> <p>According to the published fee schedule for AIHA, IHPAT accreditation for asbestos is estimated at \$2,164; and BAPAT accreditation is estimated at \$2,823. Estimated fees are based on the average fee calculated from the published fee schedule.</p> <p>According to the published fee schedule for AAR, the fee for initial registration is estimated at \$2,080; with an additional \$220 per analyst that is to be registered, and an estimated testing fee of \$1,026 for every five analysts to be registered. Estimated testing fees are based on the average fee calculated from the published fee schedule.</p> <p>Under the Board’s regulation, laboratories with branch offices must register with the Board. Direct costs include the application fee (\$100). The branch office must also be credentialed as described above depending on the type of analysis the branch office laboratory will perform.</p> <p>The estimated direct costs to a firm to renew an asbestos analytical laboratory license include (i) the application fee (\$65); (ii) average fee to register a corporation with the SCC (\$135); and the cost to renew third-party credentialing for the type of analysis the laboratory is seeking to perform. SCC renewal fees are outlined in the discussion of asbestos contractor direct costs above. Accreditation renewal fees vary depending on the credentialing organization.</p> <p>Laboratories with branch offices must pay a renewal fee of \$55 for each branch office.</p> <p>(Accredited Asbestos Training Program)</p> <p>The estimated direct cost to a firm to obtain an initial approval as a training program is \$1,115. The training program application fee is \$500 per day of training. The average length of a training program is 2.23⁶ days.</p>
--	--

⁶ Length for initial training program: Worker – four (4) days; Supervisor – five (5) days; Inspector – three (3) days; Management Planner – two (2) days; Project Designer – three (3) days; Project Monitor Comprehensive – five (5) days; Project Monitor – two (2) days. Length for refresher training program: Worker – one (1) day; Supervisor – one (1) day; Inspector – one-half (.5) day; Management Planner – one-half (.5) day; Project Designer – one (1) day; Project Monitor – one (1) day.

<p>The estimated direct cost to a firm to renew approval as a training program is \$75, which reflects the renewal fee.</p> <p>Licenses for individuals (worker supervisor, inspector, management planner, project designer, and project monitor), contractors, and analytical laboratories are valid for a period of one year. Calculation of direct costs includes the direct costs for initial licensure (Year 0), and direct costs for renewal of a license every succeeding year.</p> <p>Training program approvals are valid for a period of 24 months.</p> <p>Calculation of direct costs does not include the late renewal fee that would be due if a licensee fails to renew a license within the timeframe required by the regulation.</p> <p>Box 2(b):</p> <p>(Asbestos Worker) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are hazardous materials removal workers (\$40,720).</p> <p>(Asbestos Supervisor) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are first line supervisors of construction trades and extraction workers (\$69,740).</p> <p>(Asbestos Inspector) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are construction and buildings inspectors (\$62,170).</p> <p>(Asbestos Management Planner) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are environmental engineers (\$100,240).</p> <p>(Asbestos Project Designer) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are environmental engineers (\$100,240).</p> <p>(Asbestos Project Monitor) This is the estimated value for the direct benefit of receiving the occupational license based on the mean annual wage in Virginia for those who are construction and buildings inspectors (\$62,170).</p> <p>(Asbestos Contractor) This is the estimated value for the direct benefit of receiving the occupational license based on the national average annual pay for a construction company owner (\$72,195).</p>
--

	<p>(Asbestos Analytical Laboratory) Information to determine an estimated direct benefit of the license was not readily obtainable.</p> <p>(Accredited Asbestos Training Programs) The estimated direct benefit of receiving the training program approval is based on the national average annual pay for a private school owner (\$78,997).</p>
--	---

Impact on Local Partners

- (7) Describe the direct costs and benefits (as defined on page 1) for local partners in terms of real monetary costs and FTEs. Local partners include local or tribal governments, school divisions, or other local or regional authorities, boards, or commissions. If local partners are not affected, include a specific statement to that effect and a brief explanation of the rationale.
- (8) Quantitative Factors:
 - (a) Enter estimated dollar value of total (overall) direct costs described above.
 - (b) Enter estimated dollar value of total (overall) direct benefits described above.
- (9) Indirect Costs & Benefits: Describe any indirect benefits and costs (as defined on page 1) for local partners that are associated with all significant changes. If there are no indirect costs or benefits, include a specific statement to that effect.
- (10) Information Sources: describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why they are not.
- (11) Assistance: Identify the amount and source of assistance provided for compliance in both funding and training or other technical implementation assistance.
- (12) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Note: If any of the above information was included in Table 1, use the same information here.

Table 2: Impact on Local Partners

(1) Direct Costs & Benefits	No direct impact to local partners is anticipated as a result of the regulatory change. The licensure regulation does not impose direct costs on local government entities, and local government entities receive no direct benefits.
(2) Quantitative Factors	Estimated Dollar Amount
Direct Costs	(a) N/A
Direct Benefits	(b) N/A

(3) Indirect Costs & Benefits	There are no apparent indirect costs to local government entities resulting from the regulatory change. There are no apparent indirect benefits to local government entities resulting from the regulatory change.
(4) Information Sources	N/A
(5) Assistance	N/A
(6) Optional	N/A

Economic Impacts on Families

- (6) Describe the direct costs and benefits (as defined on page 1) to a typical family of three (average family size in Virginia according to the U. S. Census) arising from any proposed regulatory changes that would affect the costs of food, energy, housing, transportation, healthcare, and education. If families are not affected, include a specific statement to that effect and a brief explanation of the rationale.
- (7) Quantitative Factors:
 - (a) Enter estimated dollar value of direct costs.
 - (b) Enter estimated dollar value of direct benefits.
- (8) Indirect Costs & Benefits: Describe any indirect costs and benefits (as defined on page 1) to a typical family of three that are most likely to result from the proposed changes.
- (9) Information Sources: describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why not.
- (10) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Note: If any of the above information was included in Table 1, use the same information here.

Table 3: Impact on Families

(1) Direct Costs & Benefits	No direct impact to families is anticipated as a result of the regulatory change. The licensure regulation does not impose direct costs on families, and families receive no direct benefits.
(2) Quantitative Factors	Estimated Dollar Amount

Direct Costs	(a) N/A
Direct Benefits	(b) N/A
(3) Indirect Costs & Benefits	No indirect impact to families is anticipated as a result of the regulatory change.
(4) Information Sources	N/A
(5) Optional	N/A

Impacts on Small Businesses

- (7) Describe the direct costs and benefits (as defined on page 1) for small businesses. For purposes of this analysis, “small business” means the same as that term is defined in § 2.2-4007.1. If small businesses are not affected, include a specific statement to that effect and a brief explanation of the rationale.
- (8) Quantitative Factors:
 - (a) Enter estimated dollar value of direct costs.
 - (b) Enter estimated dollar value of direct benefits.
- (9) Indirect Costs & Benefits: Describe the indirect benefits and costs (as defined on page 1) for small businesses that are most likely to result from the proposed changes.
- (10) Alternatives: Add a qualitative discussion of any equally effective alternatives that would make the regulatory burden on small business more equitable compared to other affected business sectors, and how those alternatives were identified.
- (11) Information Sources: describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why not.
- (12) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Note: If any of the above information was included in Table 1, use the same information here.

Table 4: Impact on Small Businesses

(1) Direct Costs & Benefits	Licenses for workers, supervisors, inspectors, management planners, project designers, and project monitors are issued to individuals, and not to business entities.
-----------------------------	--

	<p>Licenses for contractors and analytical laboratories are issued to firms. Many of these firms may fall within the meaning of “small business” as defined in § 2.2-4007.1 of the Code of Virginia. Such entities would be directly impacted by the regulatory change.</p> <p>Training program approvals are issued to firms. Many of these firms may fall within the meaning of “small business” as defined in § 2.2-4007.1 of the Code of Virginia. Such entities would be directly impacted by the regulatory change.</p> <p>Licensed contractors and analytical laboratories, and providers of approved training programs, would directly benefit from the regulatory action, as their annual license renewal fees will be reduced.</p>
(2) Quantitative Factors	Estimated Dollar Amount
Direct Costs	(a) Please refer to Box 2(a) in Table 1a.
Direct Benefits	(b) Please refer to Box 2(b) in Table 1a.
(3) Indirect Costs & Benefits	Individuals who are licensed may be owners or employees of business entities that meet the definition of "small business" in § 2.2-4007.1 of the Code of Virginia. To the extent such business entities assume the costs for obtaining or maintaining a license, these entities would be indirectly affected.
(4) Alternatives	N/A
(5) Information Sources	N/A
(6) Optional	N/A

Changes to Number of Regulatory Requirements

For each individual VAC Chapter amended, repealed, or promulgated by this regulatory action, list (a) the initial requirement count, (b) the count of requirements that this regulatory package is adding, (c) the count of requirements that this regulatory package is reducing, (d) the net change in the number of requirements. This count should be based upon the text as written when this

stage was presented for executive branch review. Five rows have been provided, add or delete rows as needed.

Table 5: Total Number of Requirements

	Number of Requirements			
Chapter number	Initial Count	Additions	Subtractions	Net Change
18VAC15-20	349	0	0	0