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OHIO LEGISLATIVE SERVICE COMMISSION

Wendy Zhan, Director

Office of Research
and Drafting

Legislative Budget
Office

R-133-2126

To: Lauren Reid, Policy Advisor
House Majority Caucus

From: Joe McDaniels, Division Chief/Attorney *Jm*

Date: October 2, 2019

Subject: State survey of Department of Health licenses

You recently requested a state-by-state comparison of licensure requirements in Ohio, Illinois, Indiana, and Pennsylvania for the 19 occupations regulated by the Ohio Department of Health. Specifically, you asked for an indication of whether a license is required and, if so, a description of the associated: (1) education and training requirements, (2) experience requirements, (3) exam requirements, (4) continuing education requirements, (5) initial licensure fees, (6) the duration of the license, and (7) renewal fees. The information you requested is summarized in the tables that follow. Please note that the “radiologic license” is broken up into four separate tables – x-ray machine operator, radiographer, radiation therapist, and nuclear medicine – so there are 22 tables for 19 licenses.

If you have further questions about any of the information presented in this memorandum, please contact me by telephone at (614) 466-0278, or by email at joe.mcdaniels@lsc.ohio.gov.

Table 1. Person-in-charge Certification (previously known as basic food handler certification for food service operations: level one)								
State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ¹	Yes	Person-in-charge certification covering principles of food safety course of study approved by the Director of Health	N/A	Yes (verbal or written exercise; passing score not required for written exercise)	N/A	Varies (a public or private entity that is an approved course provider may establish and charge a fee)	N/A	N/A
Illinois ²	Yes (falls under food handlers)	Training in basic safe food handling principles (for restaurant food handlers, training must be American National Standards Institute accredited; for nonrestaurant, training must be Department of Health approved)	N/A	Yes	Employees must receive training every 3 years	No set fee but there must be at least 1 commercial training available that costs no more than \$15	3 years for restaurant food handlers and for food handlers employed in nursing homes, licensed day care homes or facilities, schools, hospitals, and long-term care facilities; no expiration for nonrestaurant food handlers	N/A

¹ R.C. 3717.09 and 3717.45(B)(3), Ohio Administrative Code 3701-21-2.1(C)(3), 3701-21-25, and 3701-21-25 Appendix A, *Person in Charge Certification Courses of Study*, http://codes.ohio.gov/pdf/oh/admin/2019/3701-21-25_ph_ff_n_app1_20190321_1354.pdf, and Ohio Department of Health, *Food Safety Certification*, <https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/food-safety-program/food-safety-certification/>.

² 410 ILCS 625/3.05 and 3.06, 77 Ill. Admin. Code 750.210 and 750.230, and Illinois Department of Public Health, *Food Handler Training*, <http://www.dph.illinois.gov/topics-services/food-safety/food-handler-training>.

Table 1. Person-in-charge Certification (previously known as basic food handler certification for food service operations: level one)								
State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Indiana ³	Yes (falls under certified food handler)	No	N/A	Yes	N/A	Varies (fee is set by the private certification provider)	5 years	N/A
Pennsylvania ⁴	Yes (falls under food employee certification)	No	N/A	Yes	N/A	Varies (fee is set by the private certification provider)	Lasts for the interval prescribed by the accredited certification program	N/A

Table 2. Two Manager Certification in Food Protection (previously known as food protection manager certification for food service operations: level two)								
State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ⁵	Yes	Manager certification in food protection course of study approved by the Director of Health	N/A	Yes	N/A	Varies (a public or private entity that is an approved course provider may establish and charge a fee)	N/A	N/A

³ IC 16-42-5.2-7, 410 IAC 7-22-1 to 19, and Indiana State Department of Health, *Food Protection Manager Certification*, <https://www.in.gov/isdh/21059.htm>.

⁴ 3 Pa.C.S. 6501-6505 and Pennsylvania Department of Agriculture, *Food Employee Certification*, https://www.agriculture.pa.gov/consumer_protection/FoodSafety/Retail%20Food/Pages/Food-Employee-Certification-.aspx.

⁵ R.C. 3717.09 and 3717.45(B)(3), Ohio Administrative Code 3701-21-2.1(C)(3) and 3701-21-25, and Ohio Department of Health, *Food Safety Certification, Manager Certification (Level Two)*, <https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/food-safety-program/food-safety-certification/>.

Table 2. Two Manager Certification in Food Protection (previously known as food protection manager certification for food service operations: level two)								
State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Illinois ⁶	Yes (falls under food service sanitation manager certificate)	8 hours of training approved by the Illinois Department of Health	N/A	Yes	N/A	N/A	5 years	N/A
Indiana ⁷	Yes (same as certified food handler)	No	N/A	Yes	N/A	Varies (fee is set by the private certification provider)	5 years	N/A
Pennsylvania ⁸	Yes (same as food employee certification)	No	N/A	Yes	N/A	Varies (fee is set by the private certification provider)	Lasts for the interval prescribed by the accredited certification program	N/A

⁶ 410 ILCS 625/3 and Illinois Department of Public Health, *Certified Food Protection Manager (CFPM)/Food Service Sanitation Manager (FSSMC)*, <http://www.dph.illinois.gov/topics-services/food-safety/fssmc>.

⁷ IC 16-42-5.2-7, 410 IAC 7-22-1 to 19, and Indiana State Department of Health, *Food Protection Manager Certification*, <https://www.in.gov/isdh/21059.htm>.

⁸ 3 Pa.C.S. 6501-6505 and Pennsylvania Department of Agriculture, *Food Employee Certification*, https://www.agriculture.pa.gov/consumer_protection/FoodSafety/Retail%20Food/Pages/Food-Employee-Certification-.aspx.

Table 3. Radon Tester								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ⁹	Yes	16 hour radon measurement training course approved by the Director of Health	N/A	Yes	16 hours of continuing education approved by the Director	\$400	2 years	\$400
Illinois ¹⁰	Yes (falls under both radon measurement professional license and radon measurement technician license)	U.S. Environmental Protection Agency (USEPA) Radon Measurement Operators Course or an equivalent program approved by the Illinois Emergency Management Agency (IEMA)	Optional for professional license Not required for technician license	Yes for both types (\$125 fee)	For both types, 6 credits of continuing education approved by the IEMA	\$625 for professional license; \$375 for technician license	1 year for both types	\$500 for professional license; \$250 for technician license
Indiana ¹¹	Yes (falls under primary and secondary radon tester certification)	EPA National Radon Measurement Proficiency Program or an equivalent program approved by the State Health Commissioner	N/A	Yes	6 hours of continuing education approved by the Commissioner	\$100	2 years	\$100

⁹ R.C. 3723.06 and Ohio Administrative Code 3701-69-03, 3701-69-06, 3701-69-07, and 3701-69-10.

¹⁰ 32 Ill. Adm. Code 422.60, 422.80, and 422.100.

¹¹ 410 IAC 5.1-1-23, 5.1-1-24, and 5.1-1-27; and Indiana State Department of Health, Lead & Health Homes Division, *Steps to become Licensed in Indiana for Radon Testing or Mitigation*, available at https://www.in.gov/isdh/files/Steps_to_become_Licensed_in_Indiana_for_Radon_Testing_or_Mitigation.pdf.

Table 3. Radon Tester

State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Pennsylvania ¹²	Yes	Course on radon approved by the Department of Environmental Protection (DEP)	N/A	Yes	16 credit hours of continuing education approved by DEP	\$525 for individual; \$150 for employee of a firm	2 years	\$525 for individual; \$150 for employee of a firm

Table 4. Radon Mitigation Specialist

State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ¹³	Yes	20 hour radon measurement and mitigation training course approved by the Director of Health or the Director's authorized representative	N/A	Yes	16 hours of continuing education approved by the Director	\$600	2 years	\$600

¹² 25 Pa. Code 240.102 and 240.306; 25 Pa. Code Part I, Subpt D, Ch 240, Appendix A; and Pennsylvania Department of Environmental Protection, Radon Division, *Becoming Certified to Perform Services*, <https://www.dep.pa.gov/Business/RadiationProtection/RadonDivision/Certification/Pages/ServiceCertification.aspx>.

¹³ R.C. 3723.06 and Ohio Administrative Code 3701-69-04, 3701-69-06, 3701-69-08, and 3701-69-10.

Table 4. Radon Mitigation Specialist								
State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Illinois ¹⁴	Yes (falls under both radon mitigation professional license and radon mitigation technician licenses)	U.S. Environmental Protection Agency (USEPA) Radon Mitigation Course or an equivalent program approved by the Illinois Emergency Management Agency (IEMA) for professional license USEPA Radon Mitigation Operators Course or an equivalent program approved by the Agency for technician license	Optional for professional license Not required for technician license	Yes for both types (\$125 fee)	For both types, 6 credits of continuing education approved by the IEMA	\$625 for professional license; \$375 for technician license	1 year for both types	\$500 for professional license; \$250 for technician license
Indiana ¹⁵	Yes (falls under radon mitigator certificate)	EPA National Radon Contractor Proficiency Program or an equivalent program approved by the State Health Commissioner	N/A	Yes	6 contact hours of continuing education approved by the Commissioner	\$100	2 years	\$100

¹⁴ 32 Ill. Adm. Code 422.60, 422.80, and 422.100.

¹⁵ 410 IAC 5.1-1-26 and 5.1-1-27; Indiana State Department of Health, Lead & Health Homes Division, *Steps to become Licensed in Indiana for Radon Testing or Mitigation*, available at https://www.in.gov/isdh/files/Steps_to_become_Licensed_in_Indiana_for_Radon_Testing_or_Mitigation.pdf.

Table 4. Radon Mitigation Specialist

State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Pennsylvania ¹⁶	Yes (falls under mitigation certification)	Course on radon mitigation approved by the Department of Environmental Protection (DEP)	1 year experience in mitigation system installation; or 3 years of experience in related field	Yes	16 credit hours of continuing education approved by DEP	\$450	2 years	\$450

Table 5. Radon Mitigation Contractor

State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ¹⁷	Yes	N/A	N/A	N/A	N/A	\$800	2 years	\$800
Illinois ¹⁸	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A

¹⁶ 25 Pa. Code 240.112 and 240.306; 25 Pa. Code Part I, Subpt D, Ch 240, Appendix A; and Pennsylvania Department of Environmental Protection, Radon Division, *Becoming Certified to Perform Services*, <https://www.dep.pa.gov/Business/RadiationProtection/RadonDivision/Certification/Pages/ServiceCertification.aspx>.

¹⁷ R.C. 3723.06 and Ohio Administrative Code 3701-69-05.

¹⁸ 32 Ill. Adm. Code 422.40.

Table 5. Radon Mitigation Contractor								
State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Indiana ¹⁹	No (mitigation contractors must be certified mitigators or must employ a certified mitigator)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pennsylvania ²⁰	Yes (falls under radon mitigation firm certification)	N/A	N/A	N/A	N/A	\$1,050	2 years	\$1,050

Table 6. Epinephrine Auto-injector								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ²¹	No	Must complete anaphylaxis training before authorization and every 2 years thereafter	N/A	N/A	N/A	N/A	N/A	N/A

¹⁹ 410 IAC 5.1-1-26.

²⁰ 25 Pa. Code 240.112; 25 Pa. Code Part I, Subpt D, Ch 240, Appendix A; and Pennsylvania Department of Environmental Protection, Radon Division, *Becoming Certified to Perform Services*, <https://www.dep.pa.gov/Business/RadiationProtection/RadonDivision/Certification/Pages/ServiceCertification.aspx>.

²¹ R.C. 3728.03 and 3728.04.

Table 6. Epinephrine Auto-injector								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Illinois ²²	No	Must complete anaphylaxis training before authorization and every 2 years thereafter	N/A	N/A	N/A	N/A	N/A	N/A
Indiana ²³	No	Must complete anaphylaxis training before authorization	N/A	N/A	N/A	N/A	N/A	N/A
Pennsylvania ²⁴	No	Must complete anaphylaxis training before authorization	N/A	N/A	N/A	N/A	N/A	N/A

Table 7. Lead Inspector								
State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ²⁵	Yes	24 training hours based on the Occupational Safety and Health Administration lead program ²⁶	No	Yes (\$70 fee)	8 hour refresher training course every 2 years	\$250	2 years	\$250

²² 410 ILCS 27/10.

²³ Burns Ind. Code Ann. 16-41-43-4.

²⁴ 35 Pa.C.S. 5503.

²⁵ R.C. 3742.03, 3742.05, and 3742.08; Ohio Administrative Code (O.A.C.) 3701-32-04 and 3701-82-01.

²⁶ However, if an individual is an industrial hygienist or a sanitarian, the individual is exempt from the required training (if approved by the Director of Health). O.A.C. 3701-32-04.

Table 7. Lead Inspector								
State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Illinois ²⁷	Yes	24 hour course	No	Yes (\$50 fee)	8 hour refresher training course every 3 years	\$100	1 year	\$100
Indiana ²⁸	Yes	24 hour course by an approved training course provider (minimum of 8 hours of hands-on training). 2 hour rules awareness course within 12 months prior to license application if the course instruction is not Indiana-approved. High school diploma or GED.	No	Yes (all exams given by a third party; no fee listed)	8 hour refresher training course every 3 years	\$150	3 years	\$150
Pennsylvania ²⁹	Yes	Trained by an accredited training program (federal or state) based on U.S. Environmental Protection Agency (USEPA) certification course requirements in 40 Code of Federal Regulations (CFR) Part 745	No	Yes (USEPA third party exam; \$51.10 fee)	8 hour refresher training course every 3 or 5 years ³⁰	\$200	1 year	\$200 ³¹

²⁷ 77 Ill. Adm. Code 845.105, 845.125, and 845.135.

²⁸ 410 Ind. Admin. Code 32-2-3 through 32-2-5; 32-2-9; 32-3-3 and 32-3-4.

²⁹ 34 Pa. Code 203. Department of Labor & Industry. "Lead-Based Paint Occupation Accreditation and Certification Regulations." <https://www.dli.pa.gov/laws-regs/regulations/Pages/Lead-Based-Paint-Occupation-.aspx#203.8>. Accessed on September 30, 2019.

³⁰ Every 3 years if the individual completed a training course with a test and hands-on assessment; every 5 years if the individual completed a training course with a proficiency test. 40 CFR 745.226(e).

³¹ How the fees are paid on renewal seems to have a pro-rated schedule based on whether a person renews with more than 6 months remaining or less than 6 months remaining on the person's current license. See <https://www.dli.pa.gov/Individuals/Labor-Management-Relations/bois/fee-schedules/Pages/Lead.aspx>.

Table 8. Lead Abatement Contractor

State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ³²	Yes	24 training hours based on the Occupational Safety and Health Administration lead program ³³	At least 1 year of experience as a lead abatement worker; or At least 2 years of experience in asbestos, lead abatement, radon or other environmental remediation or building construction.	Yes (\$70 fee)	8 hour refresher training course every 2 years	\$500	2 years	\$500
Illinois ³⁴	Yes	None, but must employ a lead abatement supervisor (see below)	No	No	No	\$500	1 year	\$500
Indiana ³⁵	Yes	32 hour course for lead-based paint abatement supervisors (minimum of 8 hours of hands-on training), 12 months prior to license application	At least 1 year of experience as a licensed lead-based paint abatement worker; or At least 2 years of experience in a related field, including lead, asbestos, environmental remediation, or work in the construction trades.	Yes (all exams given by a third party; no fee listed)	No specific hours required, but there is a reference to a contractor being required to complete a refresher training course	\$150	3 years	\$150

³² R.C. 3742.03, 3742.05, and 3742.08; Ohio Administrative Code (O.A.C.) 3701-32-04 and 3701-82-01.

³³ However, if an individual is an industrial hygienist or a sanitarian, the individual is exempt from the required training (if approved by the Director of Health). O.A.C. 3701-32-04.

³⁴ 77 Ill. Adm. Code 845.130.

³⁵ 410 Ind. Admin. Code 32-2-3 through 32-2-5; 32-2-9; 32-3-3 and 32-3-4.

Table 8. Lead Abatement Contractor

State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Pennsylvania ³⁶	Yes	No, but each contractor must have a certified Lead Abatement Supervisor	No	No	No	\$500	1 year	\$500

Table 9. Lead Risk Assessor

State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ³⁷	Yes	24 training hours based on the Occupational Safety and Health Administration lead program. Certified, licensed, or registered as an industrial hygienist, engineer, architect, or possess certification in a related field. Bachelor's degree or associate's degree from an accredited college or university or a high	If applicant has a bachelor's degree or an associate's degree from an accredited college or university, then the applicant needs at least 2 years of experience in lead, asbestos, other environmental remediation work, or building construction. If applicant has a high school diploma or equivalent, then the applicant needs at least 3 years of experience in lead, asbestos, other	Yes (\$70 fee)	8 hour refresher training course every 2 years	\$250	2 years	\$250

³⁶ 34 Pa. Code 203. Department of Labor & Industry. "Lead-Based Paint Occupation Accreditation and Certification Regulations." <https://www.dli.pa.gov/laws-regs/regulations/Pages/Lead-Based-Paint-Occupation-.aspx#203.8>. Accessed on September 30, 2019.

³⁷ R.C. 3742.03, 3742.05, and 3742.08; Ohio Administrative Code (O.A.C.) 3701-32-04 and 3701-82-01.

Table 9. Lead Risk Assessor								
State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
		school diploma or equivalent (but see experience requirement). ³⁸	environmental remediation or building construction.					
Illinois ³⁹	Yes	16 hour course. Licensure as an industrial hygienist, professional engineer, architect or environmental health practitioner; or A bachelor's degree in engineering, or an environmental or health field; or Any bachelor's degree, associate's degree, or a high school diploma or equivalent (but see experience requirements).	If the applicant has a bachelor's degree in an unrelated field, then the applicant needs at least 1 year of experience in a related field (e.g., lead, asbestos, or environmental remediation work, or construction). If the applicant has an associate's degree in an unrelated field, then the applicant needs at least 2 years of experience in a related field (e.g., lead, asbestos, or environmental remediation work, or construction). If the applicant has a high school diploma (or equivalent), then the applicant needs at least 3 years of experience in a related field (e.g., lead, asbestos, or environmental remediation work, or construction).	Yes (\$50 fee)	8 hour Department of Public Health approved refresher training course every 3 years	\$100	1 year	\$100

³⁸ However, if an individual is an industrial hygienist or a sanitarian, the individual is exempt from the required training (if approved by the Director of Health). O.A.C. 3701-32-04.

³⁹ 77 Ill. Adm. Code 845.105, 845.125, and 845.135.

Table 9. Lead Risk Assessor

State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Indiana ⁴⁰	Yes	<p>16 hour course instruction by an approved training course provider (minimum of 4 hours of hands-on training).</p> <p>Plus, 24 hour course instruction for lead-based paint inspectors.</p> <p>2 hour rules awareness course within 12 months prior to license application if the course instruction is not Indiana-approved.</p> <p>Bachelor's degree, associate's degree, or high school diploma or GED.</p>	<p>If applicant has a bachelor's degree, minimum experience of 1 year.</p> <p>If applicant has an associate's degree, minimum experience of 2 years.</p> <p>If applicant has a high school diploma or GED, minimum experience of 3 years.</p> <p>For experience, must be in a related field, including lead, asbestos, environmental remediation work, or construction.</p>	Yes (all exams given by a third party; no fee listed)	8 hour refresher training course every 3 years (Inspector Refresher Course and the Risk Assessor Refresher Course or a Combination-Course)	\$150	3 years	\$150

⁴⁰ 410 Ind. Admin. Code 32-2-3 through 32-2-5; 32-2-9; 32-3-3 and 32-3-4.

Table 9. Lead Risk Assessor

State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Pennsylvania ⁴¹	Yes	<p>Trained by an accredited training program (federal or state) based on U.S. Environmental Protection Agency (USEPA) certification course requirements in 40 Code of Federal Regulations (CFR) Part 745.</p> <p>Licensure as an industrial hygienist, professional engineer, architect or environmental health practitioner; or</p> <p>Any bachelor's degree, associate's degree, or a high school diploma or equivalent (but see experience requirements).</p>	<p>If applicant has a bachelor's degree, minimum experience of 1 year in a related field.</p> <p>If applicant has an associate's degree, minimum experience of 2 years in a related field.</p> <p>If applicant has a high school diploma or equivalent, minimum experience of 3 years in a related field.</p>	Yes (USEPA third party exam; \$51.10 fee)	8 hour refresher training course every 3 or 5 years ⁴²	\$200	1 year	\$200 ⁴³

⁴¹ 34 Pa. Code 203. Department of Labor & Industry. "Lead-Based Paint Occupation Accreditation and Certification Regulations." <https://www.dli.pa.gov/laws-regs/regulations/Pages/Lead-Based-Paint-Occupation-.aspx#203.8>. Accessed on September 30, 2019.

⁴² Every 3 years if the individual completed a training course with a test and hands-on assessment; every 5 years if the individual completed a training course with a proficiency test. 40 CFR 745.226(e).

⁴³ How the fees are paid on renewal seems to have a pro-rated schedule based on whether a person renews with more than 6 months remaining or less than 6 months remaining on the person's current license. See <https://www.dli.pa.gov/Individuals/Labor-Management-Relations/bois/fee-schedules/Pages/Lead.aspx>.

Table 10. Lead Abatement Project Designer								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ⁴⁴	Yes	24 training hours based on the Occupational Safety and Health Administration lead program ⁴⁵	If applicant has a bachelor's degree in engineering, architecture, or a related profession, minimum of 1 year experience in building construction and design or a related field; or Minimum of 4 years' experience in building construction and design or a related field.	Yes (\$70 fee)	8 hour refresher training course every 2 years	\$500	2 years	\$500
Illinois (called Lead Abatement Supervisor) ⁴⁶	Yes	32 hour course	1 year of experience as a licensed lead abatement worker; or 2 years of experience in a related field (e.g., lead, asbestos or environmental remediation work) or in the building trades.	Yes (\$50 fee)	8 hour Department of Public Health approved refresher training course every 3 years	\$100	1 year	\$100

⁴⁴ R.C. 3742.03, 3742.05, and 3742.08; Ohio Administrative Code (O.A.C.) 3701-32-04 and 3701-82-01.

⁴⁵ However, if an individual is an industrial hygienist or a sanitarian, the individual is exempt from the required training (if approved by the Director of Health). O.A.C. 3701-32-04.

⁴⁶ 77 Ill. Adm. Code 845.105, 845.125, and 845.135.

Table 10. Lead Abatement Project Designer								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Indiana ⁴⁷	Yes	<p>8 hour course instruction by an approved training course provider.</p> <p>Plus, the 32 hour course instruction for lead-based paint abatement supervisors (minimum of 8 hours of hands-on training).</p> <p>2 hour rules awareness course within 12 months prior to license application if the course instruction is not Indiana-approved.</p>	<p>If applicant has a bachelor's degree in engineering, architecture, or a related experience, then minimum of 1 year experience in building construction design or a related field; or</p> <p>Minimum of 4 years' experience in building construction design or a related field.</p>	Yes (all exams given by a third party; no fee listed)	4 hour refresher training course every 3 years (Supervisor Refresher Course and the Project Designer Refresher Course)	\$150	3 years	\$150

⁴⁷ 410 Ind. Admin. Code 32-2-3 through 32-2-5; 32-2-9; 32-3-3 and 32-3-4.

Table 10. Lead Abatement Project Designer								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Pennsylvania ⁴⁸	Yes	Trained by an accredited training program (federal or state) based on U.S. Environmental Protection Agency (USEPA) certification course requirements in 40 Code of Federal Regulations (CFR) Part 745	If applicant has a bachelor's degree in engineering, architecture, or a related profession, minimum of 1 year experience in building construction and design or a related field; or Minimum of 4 years' experience in building construction and design or a related field.	Yes (USEPA third party exam; \$51.10 fee)	8 hour refresher training course every 3 or 5 years ⁴⁹	\$200	1 year	\$200 ⁵⁰

⁴⁸ 34 Pa. Code 203. Department of Labor & Industry. "Lead-Based Paint Occupation Accreditation and Certification Regulations." <https://www.dli.pa.gov/laws-regs/regulations/Pages/Lead-Based-Paint-Occupation-.aspx#203.8>. Accessed on September 30, 2019.

⁴⁹ Every 3 years if the individual completed a training course with a test and hands-on assessment; every 5 years if the individual completed a training course with a proficiency test. 40 CFR 745.226(e).

⁵⁰ How the fees are paid on renewal seems to have a pro-rated schedule based on whether a person renews with more than 6 months remaining or less than 6 months remaining on the person's current license. See <https://www.dli.pa.gov/Individuals/Labor-Management-Relations/bois/fee-schedules/Pages/Lead.aspx>.

Table 11. Lead Abatement Worker								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ⁵¹	Yes	24 training hours based on the Occupational Safety and Health Administration lead program ⁵²	No	Yes (\$70 fee)	8 hour refresher training course every 2 years	\$50	2 years	\$50
Illinois ⁵³	Yes	24 hour course	No	No	8 hour Department of Public Health approved refresher training course every 3 years	\$50	1 year	\$50
Indiana ⁵⁴	Yes	16 hour course instruction by an approved training course provider (minimum of 8 hours of hands-on training). 2 hour rules awareness course within 12 months prior to license application if the course instruction is not Indiana-approved.	No	Yes (all exams given by a third party; no fee listed)	8 hour refresher training course every 3 years	\$150	3 years	\$150

⁵¹ R.C. 3742.03, 3742.05, and 3742.08; Ohio Administrative Code (O.A.C.) 3701-32-04 and 3701-82-01.

⁵² However, if an individual is an industrial hygienist or a sanitarian, the individual is exempt from the required training (if approved by the Director of Health). O.A.C. 3701-32-04.

⁵³ 77 Ill. Adm. Code 845.105, 845.125, and 845.135.

⁵⁴ 410 Ind. Admin. Code 32-2-3 through 32-2-5; 32-2-9; 32-3-3 and 32-3-4.

Table 11. Lead Abatement Worker								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Pennsylvania ⁵⁵	Yes	Trained by an accredited training program (federal or state) based on U.S. Environmental Protection Agency (USEPA) certification course requirements in 40 Code of Federal Regulations (CFR) Part 745	No	Yes (USEPA third party exam; \$51.10 fee)	8 hour refresher training course every 3 or 5 years ⁵⁶	\$50	1 year	\$50 ⁵⁷

Table 12. Clearance Technician License								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ⁵⁸	Yes	6 training hours based on the Occupational Safety and Health Administration lead program ⁵⁹	No	Yes (\$70 fee)	2 hour refresher training course or 2.4 training hours every 4 years	\$250	2 years	\$250

⁵⁵ 34 Pa. Code 203. Department of Labor & Industry. "Lead-Based Paint Occupation Accreditation and Certification Regulations." <https://www.dli.pa.gov/laws-regs/regulations/Pages/Lead-Based-Paint-Occupation-.aspx#203.8>. Accessed on September 30, 2019.

⁵⁶ Every 3 years if the individual completed a training course with a test and hands-on assessment; every 5 years if the individual completed a training course with a proficiency test. 40 CFR 745.226(e).

⁵⁷ How the fees are paid on renewal seems to have a pro-rated schedule based on whether a person renews with more than 6 months remaining or less than 6 months remaining on the person's current license. See <https://www.dli.pa.gov/Individuals/Labor-Management-Relations/bois/fee-schedules/Pages/Lead.aspx>.

⁵⁸ R.C. 3742.03, 3742.05, and 3742.08; Ohio Administrative Code (O.A.C.) 3701-32-04 and 3701-82-01.

⁵⁹ However, if an individual is an industrial hygienist or a sanitarian, the individual is exempt from the required training (if approved by the Director of Health). O.A.C. 3701-32-04.

Table 12. Clearance Technician License								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Illinois	N/A – no equivalent state license	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indiana ⁶⁰	Yes	5 hour course instruction by an approved training course provider. 2 hour rules awareness course within 12 months prior to license application if the course instruction is not Indiana-approved.	No	Yes (all exams given by a third party; no fee listed)	No specific hours required, but there is a reference to a contractor being required to complete a refresher training course	\$150	3 years	\$150
Pennsylvania	N/A – no equivalent state license	N/A	N/A	N/A	N/A	N/A	N/A	N/A

⁶⁰ 410 Ind. Admin. Code 32-2-3 through 32-2-5; 32-2-9; 32-3-3 and 32-3-4.

Table 13. Radiation Expert Certification – Therapeutic Radiation – Generating Equipment

State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ⁶¹	Yes	Certification by 1 of 3 specified national boards or a master's or doctorate degree in select fields	If applicant has a master's or doctorate, completion of either a clinical residency or 1 year of training and 1 year of experience	Yes (private certification requires)	15 hours every 2 years (1 certification), 20 hours every 2 years (2 certifications), 25 hours every 2 years (3 certifications)	\$100	2 years	\$100
Illinois ⁶²	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indiana ⁶³	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pennsylvania ⁶⁴	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A

⁶¹ Ohio Administrative Code 3701:1-66-03.

⁶² While Illinois does not license radiation experts for therapeutic radiation-generating equipment, Illinois regulations require all facilities to appoint a Radiation Safety Officer to be in charge of implementing a facility's radiation protection program. An authorized Radiation Safety Officer must be privately certified and meet specified education, training, and experience requirements. See Illinois Administrative Code 335.1040, 335.9010, and 335.9150.

⁶³ While Indiana does not license radiation experts for therapeutic radiation-generating equipment, Indiana regulations require all facilities operating x-ray equipment to be surveyed by a diagnostic imaging physicist, radiation oncology physicist, health physicist, or x-ray machine operator who has been certified by a private credentialing organization or meets specified education, training, and experience requirements and has been approved by the Physicist Review Committee. 410 Indiana Administrative Code 5-6.1-118(c), (l).

⁶⁴ While Pennsylvania does not license radiation experts for therapeutic radiation-generating equipment, Pennsylvania regulations require that surveys be conducted by a qualified expert. A qualified expert is an individual with the knowledge, experience, and training to measure ionizing radiation, to evaluate safety techniques, and to advise regarding radiation protection needs; see 25 Pa. Code 215.2, 221.73.

Table 14. Radiation Expert Certification – Diagnostic Radiation – Generating Equipment								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ⁶⁵	Yes	Certification by 1 of 2 specified national boards or a master's or doctorate degree in select fields	If applicant has a master's or doctorate, completion of either a clinical residency or 1 year of training and 1 year of experience	Yes (private certification requires)	15 hours every 2 years (1 certification), 20 hours every 2 years (2 certifications), 25 hours every 2 years (3 certifications)	\$100	2 years	\$100
Illinois ⁶⁶	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indiana ⁶⁷	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pennsylvania ⁶⁸	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A

⁶⁵ Ohio Administrative Code 3701:1-66-03.

⁶⁶ While Illinois does not license radiation experts for diagnostic radiation-generating equipment, Illinois regulations require all facilities to appoint a Radiation Safety Officer to be in charge of implementing a facility's radiation protection program. An authorized Radiation Safety Officer must be privately certified and meet specified education, training, and experience requirements. See Illinois Administrative Code 335.1040, 335.9010, and 335.9150.

⁶⁷ While Indiana does not license radiation experts for diagnostic radiation-generating equipment, Indiana regulations require all facilities operating x-ray equipment to be surveyed by a diagnostic imaging physicist, radiation oncology physicist, health physicist, or x-ray machine operator who has been certified by a private credentialing organization or meets specified education, training, and experience requirements and has been approved by the Physicist Review Committee. 410 Indiana Administrative Code 5-6.1-118(c), (l).

⁶⁸ While Pennsylvania does not license radiation experts for diagnostic radiation-generating equipment, Pennsylvania regulations require that surveys be conducted by a qualified expert. A qualified expert is an individual with the knowledge, experience, and training to measure ionizing radiation, to evaluate safety techniques, and to advise regarding radiation protection needs; see 25 Pa. Code 215.2, 221.73.

Table 15. Radiation Expert Certification – Mammography Radiation – Generating Equipment								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ⁶⁹	Yes	Certification by 1 of 2 specified national boards or a master's degree in a physical science with specified coursework	If applicant has master's degree, experience of conducting surveys of at least 10 mammography x-ray units	Yes (private certification requires)	15 hours every 2 years (1 certification), 20 hours every 2 years (2 certifications), 25 hours every 2 years (3 certifications)	\$100	2 years	\$100
Illinois ⁷⁰	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indiana ⁷¹	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pennsylvania ⁷²	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A

⁶⁹ Ohio Administrative Code 3701:1-66-03.

⁷⁰ While these states do not license radiation experts for mammography facilities, federal law requires that such surveys be performed by a medical physicist licensed or approved by the state or certified by one of two national boards; see 21 Code of Federal Regulations 900.12(a)(3).

⁷¹ *Id.*

⁷² *Id.*

Table 16. Radioactive material handler ⁷³								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio								
Illinois								
Indiana								
Pennsylvania								

Table 17. X-ray Machine Operator ⁷⁴								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ⁷⁵	Yes	Must complete an educational program approved by the Ohio Department of Health	No	Yes	12 credits every 2 years	\$65	2 years	\$45
Illinois	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

⁷³ Ohio law defines a “handler” as a facility that receives, possesses, uses, stores, transfers, installs, services, or disposes of sources of radiation (R.C. 3748.01(I) and (J)). Because the license requirement applies to a facility and not an individual, data will not be collected for this category.

⁷⁴ This occupation does not appear to be licensed under Illinois, Indiana, or Pennsylvania law; because of the limited nature of Ohio’s license, it is likely that individuals performing these functions in those states must be licensed under a different category, such as radiography. See for example, 410 IAC 5.2-3-1.

⁷⁵ R.C. Chapter 4773 and Ohio Administrative Code 3701-72.

Table 17. X-ray Machine Operator⁷⁴

State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Indiana	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pennsylvania	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 18. Radiographer

State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ⁷⁶	Yes	Must complete an educational program approved by the Ohio Department of Health	No	Yes	24 credits every 2 years	\$65	2 years	\$45
Illinois ⁷⁷	Yes (referred to as accreditation)	Associate's degree and completion of an American Registry of Radiologic Technologists-approved education program in radiography (prerequisite to private credentialing exam)	No	Yes	24 credits every 2 years	\$120	2 years	\$120
Indiana ⁷⁸	Yes (radiologic technologist)	Associate's degree and completion of an American Registry of Radiologic Technologists-approved education program in radiography (private certification requires)	No	Yes	24 credits every 2 years (private certification requires)	\$60	2 years	\$60

⁷⁶ R.C. Chapter 4773 and Ohio Administrative Code 3701-72.

⁷⁷ 32 Ill. Adm. Code 401.

⁷⁸ Burns Ind. Code Ann. 16-41-35 and 410 IAC 5.2.

Table 18. Radiographer

State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Pennsylvania ⁷⁹	Yes (radiologic technologist)	Associate's degree and completion of an American Registry of Radiologic Technologists-approved education program in radiography	No	Yes (\$25 fee)	No	No	N/A	No

Table 19. Radiation Therapist

State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ⁸⁰	Yes	Must complete an educational program approved by the Ohio Department of Health	No	Yes	24 credits every 2 years	\$65	2 years	\$45
Illinois ⁸¹	Yes (referred to as accreditation)	Associate's degree and completion of an American Registry of Radiologic Technologists-approved education program in radiation therapy (prerequisite to private credentialing exam)	No	Yes	24 credits every 2 years	\$120	2 years	\$120

⁷⁹ 49 Pa. Code 18.201 *et seq.*

⁸⁰ R.C. Chapter 4773 and Ohio Administrative Code 3701-72.

⁸¹ 32 Ill. Adm. Code 401.

Table 19. Radiation Therapist

State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Indiana ⁸²	Yes	Associate's degree and completion of an American Registry of Radiologic Technologists-approved education program in radiation therapy (private certification requires)	No	Yes	24 credits every 2 years (private certification requires)	\$60	2 years	\$60
Pennsylvania ⁸³	Yes (radiation therapy technology)	Associate's degree and completion of an American Registry of Radiologic Technologists-approved education program in radiation therapy	No	Yes (\$25 fee)	No	No	N/A	No

Table 20. Nuclear Medicine Technologist

State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ⁸⁴	Yes	Must complete an educational program approved by the Ohio Department of Health	No	Yes	24 credits every 2 years	\$65	2 years	\$45

⁸²Burns Ind. Code Ann. 16-41-35 and 410 IAC 5.2-7-1.

⁸³ 49 Pa. Code 18.201 *et seq.*

⁸⁴ R.C. Chapter 4773 and Ohio Administrative Code 3701-72.

Table 20. Nuclear Medicine Technologist								
State	License required?	Education or Training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Illinois ⁸⁵	Yes (referred to as accreditation)	Yes (required as prerequisite to exam but varies based on the organization conducting the exam)	No	Yes	24 credits every 2 years	\$120	2 years	\$120
Indiana ⁸⁶	Yes	Associate's degree and completion of an American Registry of Radiologic Technologists-approved education program in nuclear medicine technology (private certification requires)	No	Yes	24 credits every 2 years (private certification requires)	\$60	2 years	\$60
Pennsylvania ⁸⁷	Yes	Associate's degree and completion of an American Registry of Radiologic Technologists-approved education program in nuclear medicine technology	No	Yes (\$25 fee)	No	No	N/A	No

⁸⁵ 32 Ill. Adm. Code 401.

⁸⁶ Burns Ind. Code Ann. 16-41-35 and 410 IAC 5.2.

⁸⁷ 49 Pa. Code 18.201 *et seq.*

Table 21. Sanitarian Registration

State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ⁸⁸	Yes	Bachelor's degree or higher (1) in environmental health science or (2) with a minimum number of science and math courses applicable to environmental health science	1 or 2 years of full-time employment as a sanitarian, depending on education	Yes (\$165 fee if administered by the State Board of Sanitarian Registration or \$265 fee if taken online)	18 hours of Board-approved courses annually	\$160 (\$80 if advancing from a registered sanitarian-in-training)	1 year	\$90 (an additional \$75 fee applies if renewing late)
Illinois ⁸⁹	Yes (falls under environmental health practitioner license)	Bachelor's degree or higher (1) in environmental health science or (2) with a minimum number of basic science courses	None if the person holds a degree in environmental health science; 12 months of full-time experience if the person holds a Bachelor's degree in other than environmental health science	Yes (national licensing exam)	20 hours every 2 years (licensees who are age 70 or older and have held a license for at least 4 years are exempt)	\$100	2 years	\$75/year
Indiana ⁹⁰	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pennsylvania	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A

⁸⁸ R.C. 4736.08, 4736.09, 4736.11, and 4736.12, Ohio Administrative Code 4736-8-01, 4736-9-01, and 4736-11-03, and Ohio Department of Health, *Sanitarian Registration Fees and Forms* (July 31, 2018), <https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/sanitarian-registration/sanitarian-registration-fees-forms/>.

⁸⁹ 225 ILCS 37/20, 37/26, 37/27, and 37/28, 68 Ill. Adm. Code 1247.20, 1247.30, 1247.50, 1247.70, 1247.75, and 1247.100, and Illinois Department of Financial and Professional Regulation, *Environmental Health Practitioner Instruction Sheet* (October 23, 2018), <https://www.idfpr.com/Renewals/apply/forms/ehp.pdf>.

⁹⁰ Indiana had previously licensed environmental health specialists (former IC 25-32). The law was repealed on July 1, 2010 (section 102 of SEA 356, <http://archive.iga.in.gov/2010/bills/SE/SE0356.1.html>).

Table 22. Sanitarian-in-training Registration								
State	License required?	Education or training	Experience	Exam	Continuing education	Initial licensure fee	License duration	Renewal fee
Ohio ⁹¹	Yes	Bachelor's degree or higher (1) in environmental health science or (2) with a minimum number of science and math courses applicable to environmental health science	N/A	No (the State Board of Sanitarian Registration has the authority to require an exam but it does not appear to have done so)	18 hours of Board-approved courses annually	\$80	1 year (may practice a maximum of 5 years)	\$90 (an additional \$75 fee applies if renewing late)
Illinois ⁹²	Yes (environmental health practitioner in training license)	Bachelor's degree or higher (1) in environmental health science or (2) with a minimum number of basic science courses	N/A	N/A	N/A	\$50	3 years (may practice a maximum of 6 years)	\$35
Indiana ⁹³	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pennsylvania	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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⁹¹ R.C. 4736.08, 4736.10, 4736.11, 4736.12, and 4736.15, and Ohio Administrative Code 4736-8-01, 4736-9-01, 4736-10-01, 4736-11-01, 4736-11-03, 4736-12-01, and 4736-15-03, and Ohio Department of Health, *Sanitarian Registration Fees and Forms* (July 31, 2018), <https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/sanitarian-registration/sanitarian-registration-fees-forms/>.

⁹² 225 ILCS 37/20, 37/22, and 37/28, 68 Ill. Adm. Code 1247.25, 1247.75, and 1247.100, and Illinois Department of Financial and Professional Regulation, *Environmental Health Practitioner in Training Instruction Sheet* (October 23, 2018), <https://www.idfpr.com/Renewals/apply/forms/ehp-in-training.pdf>.

⁹³ Indiana had previously licensed environmental health specialists (former IC 25-32). The law was repealed on July 1, 2010 (section 102 of SEA 356, <http://archive.iga.in.gov/2010/bills/SE/SE0356.1.html>).