U.S. Department of the Interior
Bureau of Indian Education

TOXIC SUBSTANCES CONTROL ACT(TSCA)

OBJECTIVE

To gain an understanding of how to properly manage toxic substances in accordance with the Toxic Substances Control Act (TSCA).

MEETING TIPS FOR ONLINE TRAINING

- 1). Place yourself on “Mute” to prevent background noise.
- 2). Use the “Chat with all” feature to ask questions.
  - Note: All participants will be able to see your comments or questions.
- 3). Every participant will receive a certificate of completion.

BIE BRANCH OF ENVIRONMENTAL MANAGEMENT (BIE BEM) WHO WE ARE…

Albuquerque Office

John Clymo, Program Manager, Supervisory Environmental Protection Specialist
Candace DeSantis, Lead Environmental Protection Specialist
Karlisa Benally, Environmental Protection Specialist
Priscilla Avila, Environmental Protection Specialist
Henryetta Price, Environmental Protection Specialist
Rochelle Mariano, Program Support Assistant

Bloomington Office

Russell Brigham, Environmental Protection Specialist

Gallup Office

Karmen Billey- Badonie, Environmental Protection Specialist

AGENDA

- Asbestos
- Lead Base Paint
- Polychlorinated Biphenyls (PCBs)
- Radon

https://ghginstitute.org/2021/06/08/egrid-tool-for-estimating-electric-emissions-fared-well-through-climate-denying-administration/

BACKGROUND

The Toxic Substances Control Act (TSCA) is a pivotal environmental statute enacted by the United States Congress in 1976. Its primary aim is to regulate the manufacture, distribution, use, and disposal of chemicals to protect human health and the environment. Under TSCA, the U.S. Environmental Protection Agency (U.S. EPA) has the authority to assess and manage the risks posed by chemical substances, including conducting testing, collecting data, evaluating risks, and imposing regulatory controls. TSCA underwent significant amendments in 2016 with the passage of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, which aimed to strengthen chemical regulation and enhance safety standards.

Applicable Regulatory Citations

- 15 U.S.C. §§ 2601-2692 (Toxic Substances Control Act)
- 40 CFR Part 700-766 (Code of Federal Regulations - Toxic Substances Control Act Regulations)

ASBESTOS- BACKGROUND AND KEY DEFINITIONS

Asbestos is a naturally occurring mineral that has been used for centuries due to its remarkable properties, including heat resistance, strength, and insulating capabilities.

BIE Branch of Environmental Management provides a 2-hour AHERA Asbestos Awareness and Designated Person training session that goes into detail on the requirements.

https://www.huntonnickelreportblog.com/2021/02/advocacy-groups-and-plaintiffs-experts-launch-two-challenges-to-epas-asbestos-risk-evaluation-are-epa-settlements-possible/

RENOVATION AND DEMOLITION

Renovation activities involve making significant changes to a building's structure or systems, which may include alterations, additions, or upgrades to existing facilities.

- When planning renovations in buildings constructed before the 1980s, it's crucial to consider the potential presence of asbestos-containing materials (ACM), as they were commonly used in various construction materials during that period.
- Renovation projects must comply with regulations governing the handling, removal, and disposal of asbestos to ensure the safety of workers and occupants.
- Refer to your location’s asbestos management plan and coordinate with your AHERA Designated Person during the project planning phase and prior to initiating any renovation activities.

RENOVATION AND DEMOLITION

Demolition refers to the complete or partial destruction of a building or structure. Demolition activities can pose significant risks of asbestos exposure if proper precautions are not taken.

- Before demolition, a thorough asbestos inspection or survey must be conducted to identify ACM within the structure. This survey helps determine the extent of asbestos-containing materials and develop an appropriate management plan.

- Demolition projects involving structures built before the 1980s require careful planning and coordination to ensure compliance with asbestos regulations and minimize health risks to workers and the surrounding community.

https://www.asbestos.com/exposure/handling-disposing-asbestos/

RECORDS

Proper records management is essential for demonstrating compliance with asbestos regulations, ensuring the effectiveness of management strategies, and protecting the health and safety of building occupants and workers.

Schools are required to develop, maintain, and update asbestos management plans and to keep a copy at each individual school. These plans are required to document the recommended asbestos response actions, the location of the asbestos within the school, and any action taken to repair and remove the material.

INSPECTION/REINSPECTION AND ASSESSMENTS

https://asbestoschool.us/product/asbestos-worker-annual-refresher/

Effective inspection, reinspection, and assessment procedures are essential for identifying and managing asbestos-containing materials (ACM) in buildings, ensuring regulatory compliance, and protecting the health and safety of occupants and workers.

https://www.napolilaw.com/en/article/will-one-exposure-to-asbestos-cause-cancer/

RESPONSE ACTIVITIES

Response activities are crucial for mitigating risks associated with asbestos exposure, ensuring worker and occupant safety, and maintaining regulatory compliance throughout the management of asbestos-containing materials (ACM).

- Isolate the area and post signs to prevent entry
- Shut down HVAC that services the affected area
- Notify Supervisor, Designated Person and/or Local Education Agency(LEA) and Contact BIE Branch of Safety Management

MANAGEMENT PLANS

A well-developed asbestos management plan is essential for proactively addressing asbestos-related risks, ensuring regulatory compliance, and safeguarding building occupants' and workers' health and safety.

- Many schools constructed before the 1980s contain asbestos-containing materials (ACMs).
- ACMs may pose risks if damaged, deteriorated, or disturbed during maintenance, renovations, or demolition.

WARNING LABELS

https://www.creativesafetysupply.com/wall-sign/asbestos-fibers-cancer-lung-disease-hazard-ansi/

Warning labels play a critical role in identifying asbestos-containing materials (ACM) and communicating hazards to protect the health and safety of individuals working with or around asbestos-containing materials.

https://www.bradyid.com/signs/danger-contains-asbestos-fibers-sign-cps-12052?part-number=85451

https://www.seton.com/chemical-ghs-signs-asbestos-l8555.html

TRAINING

Comprehensive asbestos training programs are essential for equipping personnel with the knowledge, skills, and awareness necessary to manage asbestos-containing materials safely and effectively, protect human health and the environment, and ensure regulatory compliance.

- ❑AHERA Asbestos Awareness and Designated Person Training (Class offered by BIE BEM for BIE and School Leaders)

LEAD-BASED PAINT - BACKGROUND

Lead-based paint was commonly used in residential, commercial, and industrial buildings until it was banned for residential use in 1978 due to health concerns associated with lead exposure.

Lead-based paint may still be present in older buildings, posing health risks, particularly to children, pregnant women, and workers involved in renovation, repair, or demolition activities.

https://www.kcur.org/news/2022-07-25/goods-with-lead-are-easy-to-find-at-antique-shops-discount-stores-theyre-also-toxic

Wikimedia Commons/Thester11

LEAD-BASED PAINT - KEY DEFINITIONS

Lead-based paint is defined as paint or other surface coatings containing lead equal to or exceeding 1.0 milligrams per square centimeter (mg/cm^2) or 0.5% by weight. Lead-based paint can pose significant health risks, particularly to children and pregnant women, if ingested or inhaled as dust or fumes. The term "lead-based paint" encompasses various types of paint and coatings used in residential, commercial, and industrial settings, including interior and exterior surfaces, such as walls, ceilings, trim, doors, and windows.

LEAD-BASED PAINT - KEY DEFINITIONS

Lead hazard refers to any condition or circumstance that may result in exposure to lead, posing a risk to human health, particularly to children and pregnant women. Lead hazards can arise from various sources, including lead-based paint, lead-contaminated dust, lead-contaminated soil, and lead-containing water pipes or plumbing fixtures. Exposure to lead hazards can occur through ingestion, inhalation, or dermal contact with lead-containing substances or surfaces. Lead hazards are of particular concern in environments where lead-based paint is deteriorating, leading to the generation of lead dust or paint chips.

LEAD-BASED PAINT - KEY DEFINITIONS

Risk assessment refers to the systematic process of evaluating potential hazards, exposures, and associated risks to human health and the environment. In the context of lead-based paint and other hazardous substances, risk assessment involves identifying and characterizing sources of exposure, estimating exposure levels, and evaluating the likelihood and severity of adverse health effects.

LEAD-BASED PAINT - KEY DEFINITIONS

Lead abatement refers to the process of reducing or eliminating lead hazards in the environment to protect human health, particularly from exposure to lead-based paint and other sources of lead contamination. Lead abatement involves various strategies and techniques aimed at safely removing or containing lead hazards to reduce exposure risks.

RRP RULE AND SCHOOL APPLICABILITY

The Renovation, Repair, and Painting (RRP) Rule is essential for protecting children and adults from lead exposure hazards during renovation, repair, and painting activities in schools built before 1978. By following lead-safe work practices and regulatory requirements, schools can create safer and healthier learning environments for students and staff.

- ❑ Information on the EPA's RRP Rule, which aims to prevent lead exposure during renovation, repair, and painting activities in pre-1978 housing and child-occupied facilities, can be found on the EPA website located on the resources slide.

https://www.politifact.com/factchecks/2023/apr/13/facebook-posts/lead-paint-was-banned-protect-kids-not-expose-them/

MANAGEMENT ISSUES

Management issues require a proactive and comprehensive approach to lead-based paint management in schools, including risk assessment, worker training, compliance with regulations, communication with stakeholders, and allocation of resources to protect the health and safety of students, staff, and visitors.

- The most common lead hazards in schools are lead-based paint, lead dust, and contaminated soil. Other lead sources are older plumbing fixtures, vinyl mini-blinds, painted toys, and furniture using lead-based paint.

https://stock.adobe.com/images/texture-of-rusty-two-color-reddish-and-green-old-shabby-oxidized-metal-iron-with-bulbted-peeling-and-green-paint-and-patterns-background/203115114

https://www.jendcosafety.com/danger-lead-based-paint-7x10-ps-vinyl/

https://www.cdc.gov/nceh/lead/prevention/sources/paint.htm

POLYCHLORINATED BIPHENYLS - BACKGROUND

Polychlorinated biphenyls (PCBs) are a group of synthetic organic chemicals that were widely used in various industrial and commercial applications, including electrical equipment, hydraulic fluids, and insulation materials until their production was banned in the United States in 1979 due to environmental and health concerns.

PCBs are persistent organic pollutants (POPs) that can persist in the environment for long periods, bioaccumulate in the food chain, and pose serious health risks to humans and wildlife.

https://esslabshop.com/blogs/news/advancing-pcb-analysis

POLYCHLORINATED BIPHENYLS - KEY DEFINITIONS

PCB Congeners: A PCB congener is any single, unique well-defined chemical compound in the PCB category. The name of a congener specifies the total number of chlorine substituents, and the position of each chlorine. For example: 4,4'-Dichlorobiphenyl is a congener comprising the biphenyl structure with two chlorine substituents - one on each of the #4 carbons of the two rings. In 1980, a numbering system was developed which assigned a sequential number to each of the 209 PCB congeners.

POLYCHLORINATED BIPHENYLS - KEY DEFINITIONS

PCB Homologs: Homologs are subcategories of PCB congeners that have equal numbers of chlorine substituents. For example, the tetrachlorobiphenyls are all PCB congeners with exactly 4 chlorine substituents that can be in any arrangement.

POLYCHLORINATED BIPHENYLS - KEY DEFINITIONS

PCB Mixtures and Trade Names: PCBs were manufactured as a mixture of individual PCB congeners. These mixtures were created by adding progressively more chlorine to batches of biphenyl until a certain target percentage of chlorine by weight was achieved. Commercial mixtures with higher percentages of chlorine contained higher proportions of the more heavily chlorinated congeners, but all congeners could be expected to be present at some level in all mixtures. While PCBs were manufactured and sold under many names, the most common was the Aroclor series.

You can find these trade names on the EPA Website located on the Reference slides.

POLYCHLORINATED BIPHENYLS - KEY DEFINITIONS

Aroclor: Aroclor is a PCB mixture produced from approximately 1930 to 1979. It is one of the most commonly known trade names for PCB mixtures. There are many types of Aroclors and each has a distinguishing suffix number that indicates the degree of chlorination.

PCB TRANSFORMERS

PCBs are synthetic chemicals that are used as coolants and lubricants in electrical equipment because they are good insulators and don't burn easily.

The U.S. Environmental Protection Agency (USEPA) banned the use of PCBs in 1979, but many products made before 1979 still contain them.

A PCB transformer is defined as a transformer that contains 500 parts per million (ppm) or more of polychlorinated biphenyls (PCBs).

RECORDS FOR PCBS

Facilities that have one or more PCB Transformers, or 50 or more PCB Large, High-, or Low-Voltage Capacitors, must develop and maintain annual records and a written annual document log of the disposition of PCBs and PCB items.

The written annual document log must be prepared by July 1 of each calendar year, covering the previous year.

Facilities disposing of PCB transformers are required to maintain manifests and certificates of disposal for three years.

PCB TRANSFORMERS

PCB transformers are required to be properly serviced and inspections must be performed once every 3 months for all in-service PCB transformers.

If the transformer is found to be leaking, it must be repaired or replaced to eliminate the source of the leak.

PCB SPILLS

PCB spills pose immediate risks to human health and the environment and require prompt containment, cleanup, and remediation to prevent further contamination and exposure. Here's an overview of considerations for managing PCB spills.

PCB DISPOSAL

Disposal of PCBs (Polychlorinated Biphenyls) and PCB-containing materials requires adherence to strict regulations and guidelines to protect human health and the environment.

https://www.compliancesigns.com/pd/caution-contains-pcbs-polychlorinated-roll-label-ldre-18196-ylw

PCB DISPOSAL

- Identification and Assessment: Conduct thorough surveys and inspections to identify and assess PCB-containing materials within school buildings, including caulking, paints, light ballasts, and electrical equipment.

- Removal and Abatement: Employ qualified and licensed professionals to safely remove or abate PCB-containing materials using approved methods and equipment to minimize exposure risks.

- Packaging and Labeling: Properly package and label PCB-containing materials for transportation and disposal, following regulatory requirements to prevent leaks, spills, and exposure during handling and transport.

PCB TRANSPORTATION

Transporting PCBs (Polychlorinated Biphenyls) requires adherence to strict regulations and guidelines to ensure safety and compliance with environmental and public health standards.

- When PCB-containing materials are identified and need to be removed or disposed of in schools, transportation becomes a critical aspect of the process. PCB transportation involves the safe and compliant movement of PCB-containing materials from the school premises to approved disposal facilities.

- PCB transportation for schools requires careful planning, adherence to regulations, and collaboration with licensed transporters to ensure the safe and compliant removal and disposal of PCB-containing materials, thus protecting the health and well-being of students, staff, and the environment.

PCB DISPOSAL

PCB liquids containing concentrations > 500 ppm must be disposed of in a U.S. EPA-approved PCB incinerator.

PCB capacitors must be disposed of in either a solid waste landfill (nonleaking PCB Small Capacitor only) or an approved incinerator.

For each shipment of manifested PCB Waste that a disposal facility accepts, the owner or operator of the disposal facility must prepare a certificate of disposal.

PCB DISPOSAL

- Disposal Options: Dispose of PCB-containing materials at approved disposal facilities capable of handling hazardous waste in accordance with TSCA regulations. Options may include high-temperature incineration, chemical treatment, or landfill disposal at permitted facilities.

- Transportation: Arrange for the safe and compliant transportation of PCB-containing materials from the school premises to the designated disposal facility, utilizing licensed transporters and completing necessary documentation, such as transportation manifests.

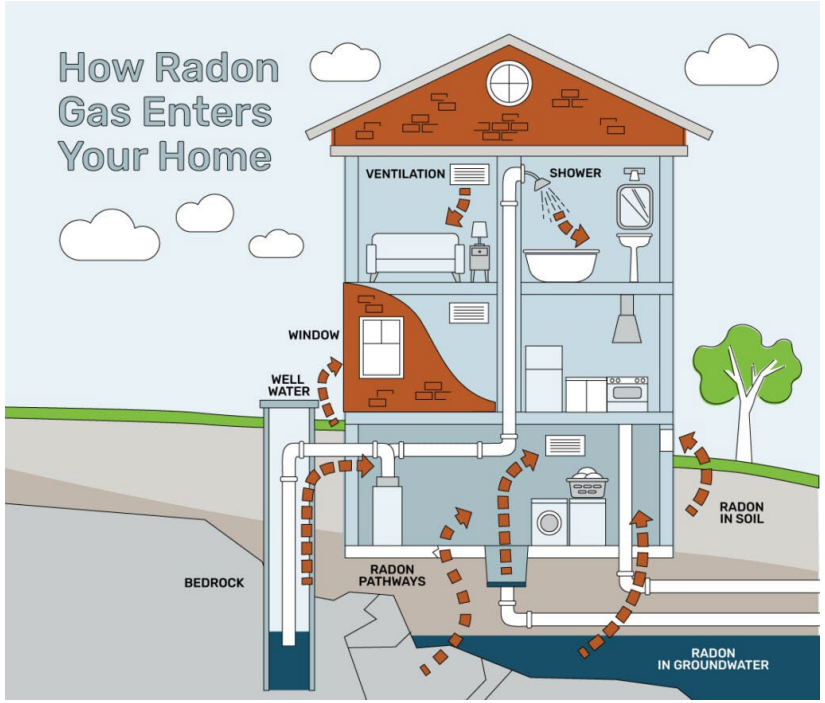
- Record-Keeping: Maintain accurate records of PCB disposal activities, including documentation of material identification, removal procedures, transportation manifests, and disposal receipts, to demonstrate compliance with regulations and facilitate tracking and accountability.

RECORDS FOR PCBS

Comprehensive recordkeeping practices are essential for maintaining accountability, demonstrating regulatory compliance, and ensuring effective management of PCB hazards throughout their lifecycle, from identification and assessment to disposal and cleanup.

RADON

Radon is a radioactive, colorless, odorless, and tasteless gas that is naturally released from the decay of uranium, thorium, and radium in rocks, soil, and water. It's usually found at low levels outdoors but can build up to dangerous levels in areas with poor ventilation, such as underground mines, homes, and schools.



https://www.protectenvironmental.com/radon-and-the-symptoms-of-radon-gas-poisoning/

MANAGEMENT ISSUES

The U.S. EPA runs a radon program that provides information to the general public on what radon is, how it affects public health, how to test for radon, and how to lower high radon levels.

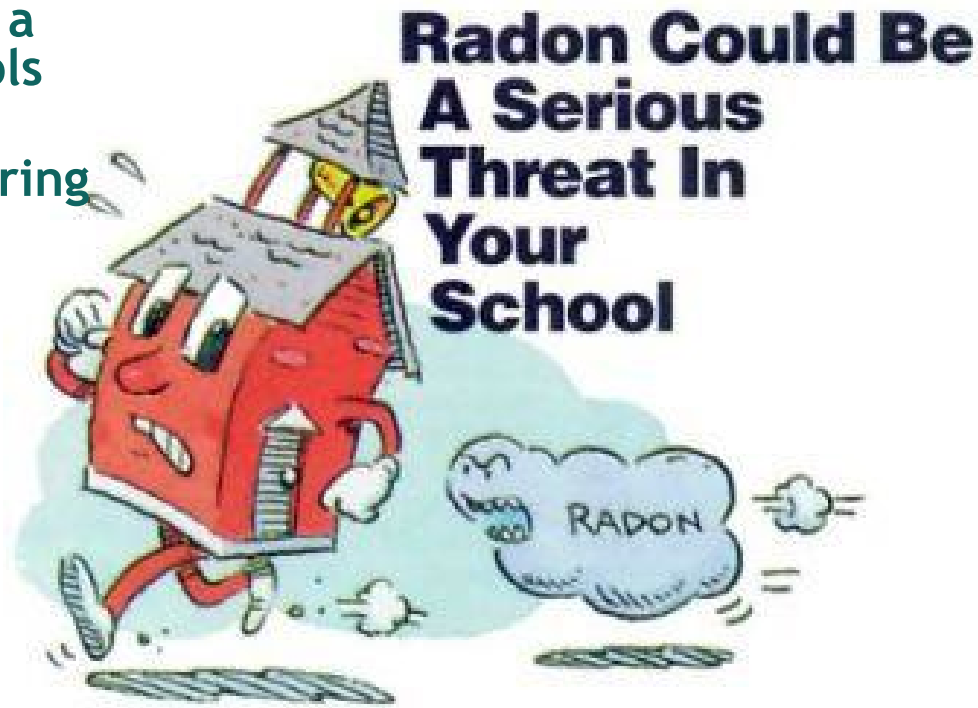
The U.S. EPA recommends that radon mitigation measures be taken if radon tests show that radon levels are equal to or greater than 4.0 pCi/L.

- A nationwide survey of radon levels in schools estimates that nearly one in five has at least one school room with a short-term radon level above the action level of 4 pCi/L (picoCuries per liter) - the level at which EPA recommends that schools take action to reduce the level.
- EPA estimates that more than 70,000 schoolrooms in use today have high short-term radon levels.

MANAGEMENT ISSUES

Mitigation measures for lowering high radon levels include increasing the rate at which air is exchanged in the lower floors and basement and using radon-resistant building materials for the basement walls.

- You can't see, taste, or smell radon. In fact, the only way to discover if high levels of radon are present is through testing.
- BIE Branch of Environmental Management is awarding a contract to provide radon mitigation designs for schools with elevated levels of radon
- BIE BEM is also developing a contract to provide recurring monitoring to all BIE funded schools



https://radonsystems4u.com/radon_in_schools.html

CONCLUSION

SUMMARY OF RESPONSIBILITIES UNDER TSCA

- Maintaining records required by EPA under TSCA
- Submitting reports, notices, or other information required by EPA under TSCA
- Permitting access to, or copying of, records required under TSCA
- Permitting entry or inspection of facilities required under TSCA
- Marking and labeling of certain polychlorinated biphenyls (PCBs) and PCB-containing equipment
- Properly storing, packaging, importing, and disposing of PCBs and PCB-containing equipment

SUMMARY OF RESPONSIBILITIES UNDER TSCA

- Preparing and maintaining annual document logs for facilities managing over 45 kilograms or 99.4 pounds of PCBs, one or more PCB transformers, or 50 or more PCB large high- or low- voltage capacitors
- Preparing and maintaining PCB disposal manifests, certificates of destruction, and exception reports
- Complying with minimum training standards for personnel engaged in asbestos abatement activities as established in EPA's Model Accreditation Plan
- Conducting lead-based paint abatement activities in most pre-1978 housing and "child-occupied facilities", such as child-care facilities and pre-schools, with properly trained and certified contractors in conformance with documented methodologies appropriate to lead-based paint activities

SUMMARY OF RESPONSIBILITIES UNDER TSCA

- Conducting renovation, repair and painting (RRP) activities at pre-1978 housing/pre-1978 child-occupied facilities using certified firms with personnel trained by EPA-approved training providers and using lead-safe work practices
- Measuring radon levels within buildings and mitigating unsafe exposure
- Providing disclosure at time of sale or lease of residential properties built before 1978
- Provide a lead hazard information pamphlet to the occupier of federally owned property prior to renovation
- Complying with minimum training standards for personnel engaged in asbestos abatement activities as established in EPA's Model Accreditation Plan

SUMMARY OF RESPONSIBILITIES UNDER TSCA

- Implementing the Asbestos Hazard Emergency Response Act (AHERA) requirements in schools
- Ensuring that K-12 schools owned/operated by U.S. Government meet AHERA compliance requirements (e.g., K-12 schools owned/operated by Bureau of Indian Affairs/Bureau of Indian Education/DOI)
- Conducting inventory and assessment of asbestos-containing material at facilities subject to AHERA, and
- Properly handling, storing, transporting, and disposing of asbestos-containing materials (Clean Air Act also mandates proper management of asbestos-containing materials under 40 C.F.R. 61.140 (40 C.F.R. 61, Subpart M), National Emission Standards for Hazardous Air Pollutants – Asbestos).

RESOURCES

Chemical Data Reporting Under the Toxic Substances Control Act
https://www.epa.gov/chemical-data-reporting

Chemicals under the Toxic Substances Control Act
https://www.epa.gov/chemicals-under-tsca

Occupational Safety and Health Administration (OSHA): www.osha.gov

Lead: https://www.osha.gov/lead

RESOURCES

Agency for Toxic Substances and Disease Registry (ATSDR): www.atsdr.cdc.gov

National Institute for Occupational Safety and Health (NIOSH):www.cdc.gov/niosh

Summary of the Toxic Substances Control Act https://www.epa.gov/laws-regulations/summary-toxic-substances-control-act

Learn about Polychlorinated Biphenyls

https://www.epa.gov/pcbs/learn-about-polychlorinated-biphenyls#:~:text=PCBs%20belong%20to%20a%20broad,yellow%20or%20black%20waxy%20solids.

RESOURCES

Lead Renovation, Repair and Painting Program

https://www.epa.gov/lead/lead-renovation-repair-and-painting-program

Lead Speak - A Brief Glossary

https://www.hud.gov/sites/documents/20264_LEADSPEAK.PDF

Toxic Substances Control Act (TSCA) and Federal Facilities

https://www.epa.gov/enforcement/toxic-substances-control-act-tsca-and-federal-facilities#Federal%20Facility%20Responsibilities%20Under%20the%20TSCA%20include

RESOURCES

Radon Publications, Webinars, and Videos

https://www.epa.gov/radon/radon-publications-webinars-and-videos

Radon: https://www.epa.gov/radon

Find a Radon Test Kit or Measurement and Mitigation Professional

https://www.epa.gov/radon/find-radon-test-kit-or-measurement-and-mitigation-professional

QUESTIONS?

BIE BEM PROGRAM CONTACTS

Harold John Clymo

Program Manager, Supervisory Environmental Protection Specialist

Albuquerque Office

Harold.Clymo@bie.edu

Candace DeSantis

Lead Environmental Protection Specialist
Contracting Officer's Representative

Albuquerque Office

Candace.Desantis@bie.edu


Mvto
HiyHiy
LemLmts
Wado
Wopila
DaWaEh
Miigwech
Wawaenon
Pinangigi
Wimblahoho
Quyana
Baasee
Ahéhee
AnaaBasee
HiriweTudahe
Pilamiya
Nya:Weh Aho
Tansi
Thank You