

# Investigation of State Approaches to Assessing Indoor

## Contaminated Dust

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U.S. Environmental Protection Agency



## **Section 1: Introduction**

The objective of this project was to collect information on evaluating the risk to residents and workers from contaminated dust from inside of a building. The hope of collecting this information was that it could potentially be used to update the Superfund program's default parameters for human health risk assessment when it comes to ingesting contaminated dust inside of a building. The United States Environmental Protection Agency (EPA) developed the Building Preliminary Remediation Goals (BPRG) calculator for estimating human health risk from the ingestion of radioactively contaminated dust indoors. The BPRG calculator may be found here: <https://epa-bprg.ornl.gov/>. The development of this calculator was based on the risk assessment for the cleanup of chemically contaminated dust after the World Trade Center incident, which may be found here: [https://epa-bprg.ornl.gov/documents/copc\\_benchmark.pdf](https://epa-bprg.ornl.gov/documents/copc_benchmark.pdf). For dose assessment, when a dose-based standard is determined to be an Applicable or Relevant and Appropriate Requirement (ARAR) at a CERCLA site, EPA has also developed the Building Dose Compliance Concentrations (BDCC) calculator that has consistent parameters with the BDCC calculator and may be found here: <https://epa-bdcc.ornl.gov/>.

Information was collected on the default models and guidance in place for assessing contaminated, both chemically and radioactivity, dust indoors from different departments across the 50 states. These models could include assessing risk from dust contaminated with radiation, chemicals, PCBs, pesticides, methamphetamine, or other contaminants. Additionally, any information the departments could provide on sampling and survey methods was included. Most communication with state departments was mostly done through email, with a few phone and video calls as well. The information provided by each state is provided in the sections below along with contact information for the respondents.

## **Section 2: Approach for Assessing Indoor Radioactively Contaminated Dust by State**

Across the United States, approaches to radioactive dust cleanup vary by state, with some states utilizing specific federal or state guidelines, while others rely on collaboration with federal agencies. States like Alaska and Indiana, which are non-agreement states, have their radioactive materials regulated by the Nuclear Regulatory Commission (NRC). Many states, including Arkansas, California, Idaho, Illinois, Louisiana, Michigan, Ohio, and Pennsylvania, use RESRAD-BUILD software to assess and manage radioactive contamination. Colorado and Iowa follow NUREG-1757 and MARSSIM guidance for decommissioning and radiological surveys. Connecticut employs NRC reg guide 1.86 initially and may progress to using RESRAD-BUILD as needed, while Delaware coordinates risk assessments between state offices and uses MARSSIM and RESRAD-BUILD. Some states like Massachusetts and Minnesota contract out cleanup work, and others like Texas have a comprehensive approach using multiple software and guidelines, including EPA Protective Action Guides (PAGs) and RESRAD. Additionally, states like New York use RESRAD or PRG calculators, and South Carolina uses the EPA Regional Screening Level Calculator for exposure assessments. Given the wide variety of models and guidelines used across the country, the following table has been compiled to provide what each specific state uses or would use in the event of a cleanup involving radioactivity contaminated dust. Departments that handle, or were expected to be involved in, the cleanup activities for radioactive dust from all 50 states were contacted. This was usually through email, but also involved phone calls. Contact information was found on organization websites. We received no reply from 20 states. Due to this, the information provided is not comprehensive, but provides a decent overview on what measures are in place across the country in regard to radioactive dust indoors. Contact information is provided for a representative from each state that responded to

our query. States highlighted **yellow** did not provide a response while states that are highlighted **blue** responded but either did not have anything specific in place or it was unclear if any guidance was in place.

**Table 1: Radioactive Dust Models and Guidance by State**

State	Guidance/Model	Cleanup Specifics	Contact
<b>Alabama</b>			
<b>Alaska</b>	Non-agreement state; NRC guidance		Irene Casares-irene.casares@alaska.gov - Alaska Department of Health
<b>Arizona</b>			
<b>Arkansas</b>	RESRAD-Build		
<b>California</b>	RESRAD-Build		John Fassell - john.fassell@cdph.ca.gov - California Department of Public Health
<b>Colorado</b>			
<b>Connecticut</b>	NRC reg guide 1.86 and RESRAD-Build	Would start with NRC reg guide 1.86 and potentially move on to RESRAD BUILD if needed	Michael Firsick - michael.firsick@ct.gov - Connecticut Department of Energy & Environmental Protection

State	Guidance/Model	Cleanup Specifics	Contact
<b>Delaware</b>	10 CFR § 20.1402, MARSSIM, and RESRAD-BUILD	The risk assessment would be a coordinated effort between the Office of Radiation Control and DNREC (Hazmat). The standard would be 10 CFR § 20.1402 Radiological criteria for unrestricted use. The EPA Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) provides detailed guidance on how to demonstrate that a site is in compliance with a radiation dose- or risk-based regulation. The RESRAD-BUILD code is approved by NRC for use to evaluate contaminated buildings involved in decommissioning and license termination. Also, the clean-up would be done through approved vendors and clearance sampling.	Robert Brinsfield - robert.brinsfield@delaware.gov - Delaware Department of Health and Social Services
<b>Florida</b>			
<b>Georgia</b>			
<b>Hawaii</b>	MARSSIM		Geoffrey Lau - geoffrey.lau@doh.hawaii.gov - State of Hawaii Department of Health
<b>Idaho</b>	RESRAD-Build	If it were an emergency response to a release, we would have the Civil Support Team or Department of Energy RAP Team 6 respond for initial assessment and characterization.	Austin Landry - austin.landry@deq.idaho.gov - Idaho Department of Environmental Quality

State	Guidance/Model	Cleanup Specifics	Contact
Illinois	RESRAD-Build	RESRAD-BUILD and other RESRAD suite programs for validating remediation goals, with potential use of models within the RAMP gateway for validating sampling plans and characterizing doses from remediation.	Adnan-Khayyat - adnan.khayyat@illinois.gov - Illinois Emergency Management Agency and Office of Homeland Security
Indiana	Non-agreement state, NRC		
Iowa	MARSSIM	MARSSIM and this would be our first resource for guidance to determine an area's radiological status and provide necessary data to support license determination (i.e. release criteria 25 mrem/yr). Additionally, we could reach out to other regulators (NRC, Agreement State) for additional consultation if needed.	Stuart Jordan - stuart.jordan@idph.iowa.gov - Iowa Department of Health and Human Services
Kansas			
Kentucky			
Louisiana	RESRAD-Build	Would also refer to any applicable documents, look at half-life of the isotope, and any other critical information.	James Pate - james.pateiii@la.gov - Louisiana Department of Environmental Quality
Maine			
Maryland			
Massachusetts	No specific models or guidance in place	This type of work would be contracted out	John Priest-jack.priest@mass.gov - Massachusetts Department of

State	Guidance/Model	Cleanup Specifics	Contact
			Health
<b>Michigan</b>	RESRAD Build and MARSSIM		T.R. Wentworth II - wentwortht@michigan.gov - Michigan Department of Environment, Great Lakes, and Energy
<b>Minnesota</b>	NUREG 1757 Volume 1, 2, and 3, MARSSIM, and MARSAME	Actual remediation would be performed by a third party, or other state resource capable of dealing with hazardous (specifically radioactive) material.	Tyler Kruse - tyler.kruse@state.mn.us - Minnesota Department of Health
<b>Mississippi</b>	Subchapter 4, 10 CFR Part 20, Appendix B of the Mississippi State Department of Health Regulations for Control of Radiation	<a href="https://www.nrc.gov/reading-rm/doc-collections/cfr/part020/part020-appb.html">https://www.nrc.gov/reading-rm/doc-collections/cfr/part020/part020-appb.html</a>	Jeffrey Algee - jeffrey.algee@msdh.ms.gov - Mississippi State Department of Health
<b>Missouri</b>			
<b>Montana</b>			
<b>Nebraska</b>	No regulations, guidance, or risk assessment methodologies for radiological contamination in dust that are specific to Nebraska		Doug Gillespie - Doug.Gillespie@nebraska.gov and LeAnna Norquest - LeAnna.Norquest@nebraska.gov - Nebraska Department of Health and Human

State	Guidance/Model	Cleanup Specifics	Contact
			Services
<b>Nevada</b>			
<b>New Hampshire</b>	He-P 4001-4097	State specific guidance - <a href="https://www.dhhs.nh.gov/programs-services/environmental-health-and-you/radiological-health">https://www.dhhs.nh.gov/programs-services/environmental-health-and-you/radiological-health</a>	David Scalise - David.M.Scalise@dhhs.nh.gov - NH Department of Health and Human Services
<b>New Jersey</b>	Decontamination and Decommissioning (DandD) and RESRAD- Build		James McCullough - James.McCullough@dep.nj.gov - New Jersey Department of Environmental Protection
<b>New Mexico</b>			
<b>New York</b>	RESRAD-Build or PRG calculators		Cynthia A. Costello - cynthia.costello@health.ny.gov - NYS Department of Health
<b>North Carolina</b>			
<b>North Dakota</b>			
<b>Ohio</b>	RESRAD-Build		Shannon Dettmer - Shannon.Dettmer@odh.ohio.gov - Ohio Department of Health



State	Guidance/Model	Cleanup Specifics	Contact
Oklahoma			
Oregon	NRC		David Howe - David.m.howe@oha.oregon.gov - Oregon Health Authority
Pennsylvania	RESRAD-Build		Bryan Werner - brwerner@pa.gov - PA Department of Environmental Protection
Rhode Island	FDA DILs	Specifically, about ingestion.	Alexander Hamm - alexander.hamm@health.ri.gov - State of Rhode Island Department of Health
South Carolina	EPA Regional Screening Level Calculator	<a href="https://www.epa.gov/risk/regional-screening-levels-rsls-users-guide#resident">https://www.epa.gov/risk/regional-screening-levels-rsls-users-guide#resident</a>	Ray Holberger - holberr@dhec.sc.gov - South Carolina Department of Health and Environmental Control
South Dakota			

State	Guidance/Model	Cleanup Specifics	Contact
<b>Tennessee</b>	Tennessee State Regulations for Protection Against Radiation 0400-20-05-.161	The Tennessee Division of Radiological Health does not have guidance specific to dust. Our methodology for evaluating the risk from radioactively contaminated dust (particulates) that could be ingested/inhaled would be to utilize the calculational methods and tables found in Tennessee State Regulations for Protection Against Radiation 0400-20-05-.161. <a href="https://www.tn.gov/environment/program-areas/rh-radiological-health1.html">https://www.tn.gov/environment/program-areas/rh-radiological-health1.html</a>	Ryan Crifield - ryan.crihfield@tn.gov and Jerry Bingaman - Jerry.bingaman@tn.gov - Department of Environment and Conservation
<b>Texas</b>	10CFR20 and RESRAD-Build	Main Guidance for assessment of Doses for Radiological emergencies is EPA Protective Action Guides (PAGs), EPA-400/R-17/001. For consequence management the State Response team typically use the Program Turbo FRMAC which incorporates EPA PAGs. For "dust" Type radiological release we use HotSpot which is a Gaussian Plume model software specifically for radiological isotopes. For Power plants we use a site-specific Modeling software that is proprietary to South Texas Project (STP) and RASCAL, which is a software NRC developed which has two modeling systems. For a real nuclear/radiological event we would have access to Interagency Modeling and Atmospheric Assessment Center (IMAAC) which has a supercomputer at Lawrence Livermore National Lab (LLNL) that has live time inputs for weather and release data. Most of software that has been discussed is available or discussed at NRC RAMP website. For routine assessment like for release of a licensed site for unrestricted use, we typically use limits set by title 10 of the Federal code of regulations section 20	Ruben Cortez - ruben.cortez@dshs.texas.gov - Texas Department of State Health Services

State	Guidance/Model	Cleanup Specifics	Contact
		<p>(10CFR20). The State of Texas is an Agreement State, meaning that the State has an agreement with NRC to control radioactive materials in the state. Texas Radiation Control Regulations are in Title 25 Texas Administrative Code (TAC) section 289. Release for unrestricted use is in 25TAC §289.202. We typically use modeling software like Visual Sample Plan (VSP) and RESRAD to determine the release levels meet the regulated doses</p>	
<b>Vermont</b>	Responded, but no models or guidance in place		Sarah Owen - <a href="mailto:sarah.c.owen@vermont.gov">sarah.c.owen@vermont.gov</a> - Vermont Department of Health
<b>Virginia</b>			
<b>Washington</b>			
<b>West Virginia</b>	No models or guidance specifically related to radiological dust contamination		

State	Guidance/Model	Cleanup Specifics	Contact
<b>Wisconsin</b>			
<b>Wyoming</b>	EPA Protective Action Guides (PAG)	Wyoming's Uranium Recovery Program does not have it's own guidance on these items. We do use any applicable Nuclear Regulatory Commission Guidance	Brandi O'Brandi - Brandi.O'Brien@wyo.gov - Wyoming Department of Environmental Quality

### **Section 3: Indoor Chemically Contaminated Dust Regulation by State**

Similarly, regulations and guidance in place for chemically contaminated dust also varies by state. Some states currently utilize federal guidance while others have developed their own or borrowed from other states. Relevant departments from all 50 states were contacted regarding what guidance and models they have in place. These departments were asked what models or guidance they would use for cleanup in a situation where there would be chemically contaminated dust indoors. There were several states that responded, but they did not have any models in place. Many departments used the EPA guidelines for assessing lead indoors and some states were able to point to guidelines they had for clandestine meth lab cleanup. Additionally, one state, Washington, provided Polychlorinated biphenyls (PCB) guidance documents. Unfortunately, 31 states did not reply to our request. The findings listed below are not comprehensive and additional info has been added as a supplement to the department responses. States highlighted **yellow** did not provide a response while states that are highlighted **blue** responded but wither did not have anything specific in place or it was unclear if any guidance was in place.

NAAHQ list of meth lab cleanup guidelines by state: <https://naahq.org/sites/default/files/naa-documents/government-affairs/protected/business-management-operations/property-operations/State-by-State-Meth-Lab-Cleanup-Regulations.pdf>

US EPA Residential Sampling for Lead - Protocols for Dust and Soil Sampling - [20012quz.pdf](#) ([epa.gov](http://epa.gov))

World Trade Center incident benchmarks –

[https://epa-bprg.ornl.gov/documents/copc\\_benchmark.pdf](https://epa-bprg.ornl.gov/documents/copc_benchmark.pdf).

Department of Defense's (DOD) Center for Health Promotion and Preventative Medicine (CHPPM) 2009 Technical Guide "Health Risk Assessment Methods and Screening Levels for Evaluating Office Worker Exposures to Contaminants on Indoor Surfaces Using Surface Wipe Data."

**Table 2: Chemical Dust Models and Guidance by State**

State	Guidance/Model	Cleanup Specifics	Contact
Alabama	N/A		
Alaska	N/A		
Arizona	N/A		
Arkansas	N/A		
California	Human and Ecological Risk Office (HERO), Human Health Risk Assessment (HHRA) for 2018 & 2020 Note Number 8 "Recommendations for Evaluating Polychlorinated Biphenyls (PCBs) at Contaminated Sites in California" <a href="https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/01/HERO-HHRA-Note-8-June-2020-A.pdf">https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/01/HERO-HHRA-Note-8-June-2020-A.pdf</a>  Office of Environmental Health Hazard		N/A found during previous search by sponsor.

State	Guidance/Model	Cleanup Specifics	Contact
	Assessment (OEHHA) Environmental Protection Agency 2009 Guidance "Assessment of Children's Exposure to Surface Methamphetamine Residues in Former Clandestine Methamphetamine Labs, and Identification of a Risk-Based Cleanup Standard for Surface Methamphetamine Contamination" <a href="https://oehha.ca.gov/media/downloads/crn/exposureanalysis022709.pdf">https://oehha.ca.gov/media/downloads/crn/exposureanalysis022709.pdf</a>		
<b>Colorado</b>	N/A		
<b>Connecticut</b>	N/A		
<b>Delaware</b>	N/A		
<b>Florida</b>	N/A		

State	Guidance/Model	Cleanup Specifics	Contact
Georgia	Combination of different guidance documents	<p>Before making any assessment of hazardous waste cleanup levels it must first be determined if a waste is a hazardous waste. For hazardous waste determinations, the Haz Waste ID and Characteristics EPA guidance document lays out the basics for making a hazardous waste determination. The waste (in this case a dust) may be determined to be a hazardous waste due to either being a listed hazardous waste (F, P, K, or U categories) or a characteristic hazardous waste (based on the characteristics of ignitability, corrosivity, reactivity, or toxicity). The guidance document references 40 CFR Part 261, Appendix I, for representative sampling methods. For obtaining a representative sample of a dust, sampling in accordance with ASTM Standard D2234-76 for fly-ash like materials may be the most appropriate method listed. However, this must be confirmed because fly ash may exist in many forms ranging from dust-like to glass-like material. Once a sample is collected, the following EPA website (<a href="https://www.epa.gov/hw-sw846">https://www.epa.gov/hw-sw846</a>) contains information on which of the SW-846 test methods should be used. Method 1311: Toxicity Characteristic Leaching Procedure (TCLP) is a commonly used method to obtain an extract which is further analyzed using an appropriate test method such as 8260C for VOCs. The sample would be considered a hazardous waste and must be managed</p>	<p>Robert Kalch - robert.kalch2 @dnr.ga.gov - Georgia Environment al Protection Division</p>



State	Guidance/Model	Cleanup Specifics	Contact
		<p>and disposed of as a hazardous waste, if the concentration(s) are equal to, or greater than, current authorized regulatory limits. If all regulated constituents were less than the appropriate regulatory limits the dust would be handled as a solid waste instead.</p>	
<b>Hawaii</b>			
<b>Idaho</b>	N/A		

<b>State</b>	<b>Guidance/Model</b>	<b>Cleanup Specifics</b>	<b>Contact</b>
<b>Illinois</b>	N/A		
<b>Indiana</b>	N/A		
<b>Iowa</b>	N/A		
<b>Kansas</b>	Answered, but no specific models or guidance in place		
<b>Kentucky</b>	N/A		
<b>Louisiana</b>	N/A		
<b>Maine</b>	N/A		
<b>Maryland</b>	N/A		

State	Guidance/Model	Cleanup Specifics	Contact
<p><b>Massachusetts</b></p>	<p>Technical update on this topic  <a href="https://www.mass.gov/doc/technical-update-characterization-of-risks-due-to-inhalation-of-particulates-by-construction/download">https://www.mass.gov/doc/technical-update-characterization-of-risks-due-to-inhalation-of-particulates-by-construction/download</a></p> <p>This paper cited in that report may also be helpful:  <a href="https://www.mass.gov/doc/real-time-air-monitoring-at-construction-and-remediation-sites-to-estimate-risks-of-0/download">https://www.mass.gov/doc/real-time-air-monitoring-at-construction-and-remediation-sites-to-estimate-risks-of-0/download</a></p> <p>Licensed Site Professional Association produced a newsletter addressing some of the issues relating to dust exposures you may find interesting:  <a href="https://www.lspa.org/index.php?option=com_dailyplanetblog&amp;view=entry&amp;category=blog&amp;id=371:resources-for-evaluating-the-dust-inhalation-pathway-and-impacts-for-residents">https://www.lspa.org/index.php?option=com_dailyplanetblog&amp;view=entry&amp;category=blog&amp;id=371:resources-for-evaluating-the-dust-inhalation-pathway-and-impacts-for-residents</a></p>	<p>Massachusetts does not develop clean-up levels; however, we evaluate environmental exposures and risks to human health which we summarize in our public health assessment documents, through our cooperative agreement with the US Agency for Toxic Substances and Hazardous Waste Registry (ATSDR). When evaluating exposure to contaminated dust in the work that we do, we would follow ATSDR's Public Health Assessment Guidance Manual  <a href="https://www.atsdr.cdc.gov/pha-guidance/index.html">https://www.atsdr.cdc.gov/pha-guidance/index.html</a> and, utilizing ATSDR media specific screening values and exposure dose guidance for the specific pathway we are evaluating, e.g.  <a href="https://www.atsdr.cdc.gov/pha-guidance/resources/ATSDR-EDG-Soil-Sediment-Ingestion-508.pdf">https://www.atsdr.cdc.gov/pha-guidance/resources/ATSDR-EDG-Soil-Sediment-Ingestion-508.pdf</a> and  <a href="https://www.atsdr.cdc.gov/pha-guidance/resources/ATSDR-EDG-Inhalation-508.pdf">https://www.atsdr.cdc.gov/pha-guidance/resources/ATSDR-EDG-Inhalation-508.pdf</a>.</p>	<p>Greg Braun - <a href="mailto:greg.braun@mass.gov">greg.braun@mass.gov</a> - Massachusetts Dept of Env. Protection</p>
<p><b>Michigan</b></p>	<p><b>Lead</b> - Michigan Department of Health and Human Services (MDDHS) uses EPA</p>	<p>No guidance in place but would likely be done using EPA guidance for lead in dust sampling.</p>	

State	Guidance/Model	Cleanup Specifics	Contact
	guidance and cleanup levels for lead in indoor dust		
<b>Minnesota</b>	<p><b>Lead</b> - methods for dealing with leaded dust are based on HUD guidelines:  <a href="https://www.hud.gov/program_offices/healthy_homes/lbp/hudguidelines">https://www.hud.gov/program_offices/healthy_homes/lbp/hudguidelines</a>  Minnesota  Rules:<a href="https://www.health.state.mn.us/communities/environment/lead/rules/index.html">https://www.health.state.mn.us/communities/environment/lead/rules/index.html</a></p>	<p>Specifically for lead (Pb), methods for dealing with leaded dust are based on HUD guidelines:  <a href="https://www.hud.gov/program_offices/healthy_homes/lbp/hudguidelines">https://www.hud.gov/program_offices/healthy_homes/lbp/hudguidelines</a>  Minnesota  Rules:<a href="https://www.health.state.mn.us/communities/environment/lead/rules/index.html">https://www.health.state.mn.us/communities/environment/lead/rules/index.html</a>  Minnesota Rules define lead dust here:  <a href="https://www.revisor.mn.gov/rules/4761.2510/">https://www.revisor.mn.gov/rules/4761.2510/</a>  Removal of interior lead paint AND leaded dust:  <a href="https://www.revisor.mn.gov/rules/4761.2645/">https://www.revisor.mn.gov/rules/4761.2645/</a>  Sampling for lead dust for clearance is here:  <a href="https://www.revisor.mn.gov/rules/4761.2670/">https://www.revisor.mn.gov/rules/4761.2670/</a></p>	todd.schaefer@state.mn.us
<b>Mississippi</b>	N/A		
<b>Missouri</b>	N/A		
<b>Montana</b>	No specific models or guidance. <b>Meth lab</b> - California and Colorado guidelines	Not aware of specific risk assessment activities that Montana DEQ has done for asbestos or methamphetamine cleanup. We generally follow EPA guidance regarding asbestos. Meth cleanup value is based on information from California and Colorado.	dkirkpatrick@mt.gov - Montana Department of Environmental Quality
<b>Nebraska</b>	<b>Meth lab</b> - Title 178 Chapter 24, <b>Lead</b> - Title 178 Chapter 23	<a href="https://dhhs.ne.gov/Pages/Title-178.aspx">https://dhhs.ne.gov/Pages/Title-178.aspx</a>	Doug.Gillespie@nebraska.gov and LeAnna.Norq

State	Guidance/Model	Cleanup Specifics	Contact
			uest@nebraska.gov - Nebraska Department of Health and Human Services
<b>Nevada</b>	Answered, but no specific models or guidance in place		
<b>New Hampshire</b>	N/A		
<b>New Jersey</b>	Answered, but no specific models in place	CSRR currently does not have published guidance available for cleaning up chemical dust indoors, as our perimeter air monitoring guidance for sites undergoing remediation attempts to eliminate this from occurring in the first place. If such a situation were to occur, it would be handled on a site-specific basis and would likely include a joint effort between NJDEP and NJDOH.	Allan Motter - allan.motter@dep.nj.gov - New Jersey Department of Environmental Protection
<b>New Mexico</b>	N/A		
<b>New York</b>	<b>Lead</b> - Follows the U.S. Environmental Protection Agency protocols for sampling residential dust for case closure purposes.	Has not developed guidelines that are specific to contaminated indoor dust	btsa@health.ny.gov - Bureau of Toxic Substance Assessment
<b>North Carolina</b>	N/A		
<b>North Dakota</b>	N/A		

State	Guidance/Model	Cleanup Specifics	Contact
Ohio	EPA Regional Screening Levels	Does not directly evaluate the risk of exposure to contaminated indoor dust. However, when soil is contaminated due to a release to environmental media, it is assumed that indoor dust is partially comprised of contaminated soil. This assumption is inherently built into the assumptions used to evaluate exposure to contaminated soil (e.g., soil ingestion, inhalation of volatile and particulate emissions, and dermal contact). <a href="https://www.epa.gov/risk/regional-screening-levels-rsls-users-guide">https://www.epa.gov/risk/regional-screening-levels-rsls-users-guide</a>	Sarah Beal - sarah.beal@epa.ohio.gov - Ohio Environmental Protection Agency
Oklahoma	N/A		
Oregon	N/A		
Pennsylvania	N/A		
Rhode Island	N/A		
South Carolina	Lead - TSCA	TSCA rules for lead in dust, which is quantified using wipe samples, and asbestos, which is typically sampled by pumping air through cassette samplers.	Ray Holberger - holberr@dhec.sc.gov - South Carolina Department of Health and Environmental Control
South Dakota	Answered, but no specific models or guidance in place		
Tennessee	Lead - EPA guidance Meth lab - California guidance: <a href="https://oehha.ca.gov/risk-assessment/crnrr/develop">https://oehha.ca.gov/risk-assessment/crnrr/develop</a>	For both lead dust cleanups and clandestine meth lab cleanups literature values have been used for clearance values and wipes were the primary sampling method during	

State	Guidance/Model	Cleanup Specifics	Contact
	<a href="#">ment-reference-dose-rfd-methamphetamine-and-assessment-childrens</a>	characterization and confirmation sometimes supplemented with an XRF for lead cleanups. No site-specific exposure modeling has been conducted in either type of cleanup that we have been involved with	
<b>Texas</b>	N/A		
<b>Utah</b>	Utilizes New Mexico guidance: <a href="https://www.env.nm.gov/hazardous-waste/wp-content/uploads/sites/10/2022/11/NMED_SSG_VOL_I_Nov_2022.pdf">https://www.env.nm.gov/hazardous-waste/wp-content/uploads/sites/10/2022/11/NMED_SSG_VOL_I_Nov_2022.pdf</a>	Swipe samples and compare to surface swipe screening levels, based on the NMED guidance (Appendix E)	Paige Walton - pwalton@utah.gov - Utah Department of Environmental Quality
<b>Vermont</b>	Responded, but no models or guidance in place		Sarah Owen - sarah.c.owen@vermon.gov - Vermont Department of Health
<b>Virginia</b>	N/A	Doesn't model indoor dust exposures directly, we only consider it on a regular basis through the evaluation of contaminated site soils. RAGS soil evaluations and the lead models all consider indoor dust to a degree	Kyle Newman - Kyle.newman@deq.virginia.gov - Virginia Dept. of Environmental Quality
<b>Washington</b>	Answered, but no specific models in place. Provided documents on PCBs	Three documents where PCB dust was evaluated via ingestion, dermal, and inhalation. The Dallas Avenue document contains a dust collection SOP in Appendix D.	Lenford O'Garro - lenford.o'garro@doh.wa.gov - WA Department

State	Guidance/Model	Cleanup Specifics	Contact
		<p>Dallas Avenue Neighborhood PCB Seattle, King County May 16, 2006 (wa.gov)</p> <p>Rainier Commons, Seattle, PCBs Exposure, Health Consultation, 2013 (wa.gov)</p> <p>Letter Health Consultation, Alder Tower Polychlorinated Biphenyls (PCBs) Caulking, Seattle, 2011 (wa.gov)</p>	of Health
West Virginia	N/A		
Wisconsin	N/A		
Wyoming	N/A		