

Cost-Effectiveness Emphasized in Guidance From EPA on Addressing Vapor Intrusion



The Environmental Protection Agency's new vapor intrusion guidance improves upon the previous version because it emphasizes investigating "multiple lines of evidence" and its recommended mitigation measures are more cost-effective, the head of the agency office handling superfund issues told Bloomberg BNA June 12.

"This will create a really extensive investigation of whether vapor intrusion really exists," Mathy Stanislaus, EPA assistant administrator for solid waste and emergency response, said. Based on past lessons from the field, his office crafted methodologies for "how do you ensure scientifically that we can confirm or deny that it exists," he said.

The guidance, released June 11, recommends how best to assess and mitigate vapor intrusion from contaminated soil or groundwater seeping into overlying buildings (24 EDDG 41, 6/18/15).

It consists of two documents, one covering petroleum vapor leaking from underground storage tanks and another covering all other sites, to be used by the EPA, state agencies or grantees in the agency's brownfields program as they evaluate sites under the Comprehensive Environmental Response, Compensation, and Liability Act or Resource Conservation and Recovery Act.

Both documents are nonbinding and do not impose any new regulations—a point Stanislaus emphasized.

"I've been calling it a guide rather than a guidance," he said. "It does not set new policy, does not set new scientific levels."

Changes From Draft Guidance

Stanislaus also emphasized that the mitigation approaches found in the new documents will be cost-effective because they highlight the importance of early detection and avoiding long-term mitigation costs. He said the mitigation in the previous guidance have been modified to recommend the use of short-term, interim solutions, like increasing ventilation, while evaluating and developing permanent fixes, such as removing contaminated soil.

He also noted that the separate petroleum guidance was added "because petroleum behaves differently."

The EPA had been operating under draft guidance it developed in 2002. The effort to update that guidance has stretched out for years (23 EDDG 78, 10/16/14).

"This has been one of the top issues since I came into this job," Stanislaus said, adding that stakeholders regularly pressed the agency to create clear national guidance.

Updated to Reflect Science

Over those years, the science on how to assess vapor intrusion and awareness of its impacts has changed rapidly, a fact that necessitated the crafting of new guidance in the first place.

"I'm impressed they made a real effort to keep up with the moving target of the science. Every time they sent it out for review, there was new science, and they seem to have done a good job

of keeping up with that," Lenny Siegel, a vapor intrusion expert and executive director of the Center for Public Environmental Oversight, told Bloomberg BNA.

Siegel said flexibility was one of the main characteristics of the new guidance, particularly in how testing is performed. For example, the new guidance recommends starting testing either by sampling air indoors or at the external, sub-slab area.

This might be more a flexible testing approach than most states. "Some states rely on indoor air and others don't. EPA allows you to do it either way," Siegel said. He added that, at least at the sites at which he works, the EPA already is taking this approach. "This is nothing new," he said.

New Technical Information

Larry Schnapf, an environmental lawyer at Schnapf LLC, said that the non-petroleum guidance document has a lot of new technical information, particularly on how vapor intrusion risk increases when properties are served by sewer or septic systems. In an e-mail to Bloomberg BNA, he said the guidance showed "that the standard 100 foot critical search distance may not be applicable when properties are served by sewers or have utilities."

Schnapf also noted the guidance's illustration of the risks of vapor intrusion at mobile home parks.

Jurisdictional Questions Remain

Siegel and Schnapf both questioned what the guidance would mean for the jurisdictional issues between the EPA and Occupational Safety and Health Administration.

In the 2002 draft guidance, the two agencies agreed OSHA generally would take the lead addressing occupational exposures to vapor intrusion, but Schnapf noted that the new guidance "does not make as strong a statement as the 2002 version about the OSHA/EPA jurisdictional issue. It simply references that the agencies entered into a [memorandum of understanding]."

However, he and Siegel both noted that the new guidance says it applies to both residential and non-residential buildings, possibly raising a question of which agency will take the lead in which situations. The jurisdictional question has been an ongoing and controversial legal issue ([23 EDDG 57, 8/21/14](#))