

The (Not-So-Certain) Future Of EPA's Vapor Intrusion Rule

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A new federal rule from the Obama administration requiring consideration of vapor intrusion in ranking hazardous sites nationally has been halted — but, it's not the only one. Amid the flurry of executive activity during President Donald Trump's first weeks in office, one of the White House's first moves was for Chief of Staff Reince Priebus to issue a memorandum, on the day of Trump's inauguration, instructing all executive departments and agencies to freeze new or pending regulations (the "freeze memo").

The action is a fairly standard move by a new administration taking over from the other party; indeed, the Obama administration issued a similar memorandum upon the president taking office in 2009. On Jan. 24, 2017, the White House issued another memorandum titled "Implementation of Regulatory Freeze," which provides guidance to departments and agencies on implementing the freeze memo. Together, the memoranda impact federal regulations developed under the Obama administration that have yet to become effective.

Impact on EPA's Vapor Intrusion Regulation

One environmental regulation falling within the net of the freeze memo is the U.S. Environmental Protection Agency's final rule adding a subsurface intrusion (Ssl) component to the hazard ranking system (HRS), which is the principal mechanism the EPA uses to evaluate sites for placement on the national priorities list (NPL) (the Ssl rule). The NPL is a list of national priorities among the known or threatened releases of hazardous substances, pollutants or contaminants throughout the United States. Sites on the NPL are priorities for further investigation to determine if further response actions are warranted. The subsurface intrusion component (this addition) enables the EPA to directly consider human exposure to hazardous substances, pollutants or contaminants that enter regularly occupied structures, such as homes and work buildings, through Ssl in assessing a site's relative risk. The rule thus enables sites with Ssl contamination to be evaluated for placement on the NPL, which was not the case prior to this rule, thereby allowing the number of listed sites to vastly increase.

The EPA's final rule was published in the Federal Register on Jan. 9, 2017, but was not to be effective until Feb. 8, 2017. See "Addition of a Subsurface Intrusion Component to the Hazard Ranking System," 82 Fed. Reg. 2760 (Jan. 9, 2017). For regulations that already had been published in the Federal Register but had not yet taken effect, agency staff are instructed to: postpone for 60 days the effective dates of such regulations for the purpose of further review; consider proposing a rule for notice and comment to



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postpone the effective date beyond 60 days where appropriate; and, where comment is taken, to also seek comment on the regulation itself, “including about questions of fact, law and policy that the agency should recognize as it considers whether the regulation raises any substantial concerns.”

Accordingly, the effective date is now “frozen” for at least 60 days from the date of the Freeze Memo (until March 21) and the rule is subject to further review, and even potentially further public comment. If the EPA, under direction of the new administration, determines the rule raises a “substantial question of fact, law or policy,” then the issue may be subject to “additional rulemaking” or “other further actions.” In other words, the future of the rule and its potential impact on contaminated sites across the country currently are in doubt.

What is Subsurface Intrusion?

Subsurface intrusion is the migration of hazardous substances, pollutants and contaminants from the unsaturated zone and/or surficial groundwater into overlying structures such as homes and buildings. While SSI can take multiple forms, the most common form is vapor intrusion. When hazardous substances, pollutants or contaminants, such as dry cleaning solvents and industrial degreasers, are spilled on the ground or otherwise migrate to the subsurface, they can move in the subsurface environment and eventually enter buildings as a gas or vapor, or even as a liquid in some cases. Vapor intrusion is of particular concern because concentrations of vapors can migrate into indoor air to a point where the health of residents or workers in those buildings could be at risk. Intrusion of contaminants in a nonvapor state may also be a pathway of concern because of the potential for human exposure to the liquids, the resulting precipitates or associated vapors.

One contaminant of major concern for SSI is trichloroethylene, or TCE, a widely used industrial chemical frequently found at hazardous waste sites as a contaminant in soil and groundwater. Scientific evidence indicates TCE may pose a potential cancer and noncancer human health hazard at elevated levels. In December 2016, the EPA announced its proposed ban of TCE under the newly amended Toxic Substances Control Act, a law passed in 1976 that regulates the introduction of new or already existing chemicals. EPA’s proposed rule would ban TCE for use in dry cleaning and aerosol spray degreasers for both commercial and consumer use by prohibiting its manufacture, processing and distribution. A second proposed rule released in January 2017, would ban the use of TCE in vapor degreasing.

In a May 2010 report (GAO-10-380, May 2010), the U.S. Government Accountability Office (GAO) concluded that if vapor intrusion sites are not assessed and, if needed, listed on the NPL, there is the potential that contaminated sites with unacceptable human exposure will not be acted upon. Many sites on the NPL that have SSI problems were placed on the NPL by evaluation of pathways other than a SSI mechanism. There are other contaminated sites that did not qualify for placement on the NPL under the current HRS that excludes the SSI pathway. These sites may qualify for placement on the NPL if the threat from subsurface intrusion is included in the HRS. The EPA states its rule adding a SSI component to the HRS is designed to enable the EPA to identify situations in which individuals are exposed or potentially exposed to vapor or other contaminant intrusion in dwellings, work places, or other structures or enclosures. However, many stakeholders are opposed to the HRS addition, stating there are other mechanisms, such as state hazardous waste programs, to deal with these sites.

What is the Hazard Ranking System?

The HRS is a scoring system used to assess the relative risk associated with actual or potential releases of hazardous substances from a site based on the information that can be collected in a preliminary

assessment and site inspection. It is a crucial part of the EPA's program for determining which sites are a priority for further remedial investigation and possible cleanup under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, also known as Superfund.

The EPA's authority to modify the HRS is in Section 105(a)(8)(A) of CERCLA, which required the EPA to establish criteria for determining priorities among releases or threatened releases of hazardous substances based upon relative risk or danger to public health or welfare or the environment. The 1986 Superfund Amendments and Reauthorization Act (SARA) amendments to CERCLA added Section 105(c)(1), requiring the EPA to amend the HRS to assure "to the maximum extent feasible, that the hazard ranking system accurately assesses the relative degree of risk to human health and the environment posed by sites and facilities subject to review." In addition, CERCLA Section 115 authorizes the EPA to promulgate any regulations necessary to carry out the provisions of CERCLA.

When the HRS was last revised in 1990, to include the evaluation of four pathways — groundwater, surfacewater, soil exposure and air — to ensure a complete assessment of the relative risk that a site may pose to the public, the technology to detect and evaluate Ssl threats was not sufficiently developed. Perhaps due to the limited investigation techniques, the Ssl pathway was also not recognized as an important exposure pathway. However, current analytical method and investigative techniques allow for the Ssl pathway to be evaluated in a more comprehensive manner. Based on the increased recognition of the importance of this pathway, the EPA passed its rule adding Ssl as a component to the HRS. The EPA states the final rule ensures the HRS does not omit a known pathway of human exposure to contamination due to Ssl of released hazardous substances and provides a mechanism for assessing Ssl threats and identifying sites for placement on the NPL. Furthermore, these sites are now eligible for Superfund-financed remedial actions.

What are the Potential Impacts of the "Freeze Memo" on this New Ssl Rule?

As noted above, the EPA's rule adding Ssl to the HRS is currently postponed for at least 60 days, until March 21. For sites currently under review by the EPA for inclusion on the HRS, the evaluation will only focus on exposures related to direct contact (i.e., ingestion and dermal contact) with chemicals in groundwater and soil, as well as those released to ambient air. As part of the rule adding Ssl to the HRS, the EPA identified 1,073 sites currently listed in the EPA's Superfund enterprise management system that have the potential to have a vapor intrusion issue. If the Ssl addition to the HRS is not enacted or is delayed for an extended period of time, it is unclear if any of these sites would score high enough to become a listed Superfund site. For those sites currently in the Superfund program, there will be no effects from the delay to the HRS Ssl regulation. These sites have already been scored and listed under CERCLA. Sites that were listed prior to the Ssl regulation must continue to evaluate the vapor intrusion pathway and even consider it as part of the five-year review process (Supplement to the Comprehensive Five-Year Review Guidance, OSWER Directive 9200.2-84).

Although vapor intrusion is an important exposure pathway at hazardous waste sites, the EPA HRS Ssl regulation did have the potential to falsely identify and add sites to the HRS based on vapor intrusion. Due to the limited amount of data generally available for the HRS scoring as well as the need to be consistent with the 1990 HRS scoring structure, the Ssl addition is likely to lead to both false negatives and false positives when evaluating sites. In particular, concerns have been raised that the Ssl addition to the HRS may not (1) effectively account for source strength; (2) appropriately use building size to evaluate the pathway; (3) evaluate the pathway consistent with the EPA's 2015 vapor intrusion guidance; and (4) account for biodegradation in the subsurface. The delay in the HRS Ssl regulation may allow for these critical issues to again be raised.

What to Expect Going Forward

The regulatory freeze was Trump's first step in his effort to maintain his campaign promises to reduce regulatory burdens for domestic manufacturers, particularly in the environmental context. Moreover, in an affirmative posture, Trump also signed an executive order on Jan. 24, 2017, to expedite environmental reviews and approvals for high-priority infrastructure projects. To that end, the order states "it is the policy of the executive branch to streamline and expedite, in a manner consistent with law, environmental reviews and approvals for all infrastructure projects, especially those that are high-priority for the nation, such as improving the U.S. electric grid and telecommunications systems and repairing and upgrading critical port facilities, airports, pipelines, bridges and highways."

This executive order is in line with other executive directives signed by Trump on Jan. 24, 2017, such as the "Presidential Memorandum Streamlining Permitting and Reducing Regulatory Burdens for Domestic Manufacturing." These directives collectively are designed to expand manufacturing in the United States, reduce regulatory burdens on domestic manufacturing, expedite reviews and approval, ensure usage of materials and equipment produced in the United States, create American jobs, and otherwise allow projects that "would serve the national interest" to proceed as efficiently as possible.

In addition to executive action, Congress appears intent on targeting late environmental rules from the Obama administration, such as the Bureau of Land Management's new land-planning rule and the U.S. Department of the Interior's rule aimed at minimizing coal mining's harm to surface water and groundwater. Indeed, currently there are several pending bills curtailing the federal government's ability to regulate environmental issues — even one that seeks to eliminate the EPA in its entirety effective Dec. 31, 2018 — and giving states and municipalities more power to regulate environmental concerns.

Given the Trump administration's policy on regulatory burdens and Congress' posture against federal environmental regulatory power, stakeholders should expect for the EPA's new Ssl rule to receive additional scrutiny. Indeed, prior objections to the Ssl rule that state hazardous waste programs are more appropriate for dealing with vapor intrusion and other Ssl are likely to gain traction if the Ssl rule undergoes another rulemaking process. In that case, one should expect the listing of less Superfund sites and more local and regional decision-making when it comes to sites impacted by Ssl.

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