

## Navigating Voluntary Cleanups in a World of Evolving Science



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**By Caleb J. Holmes | [October 27, 2022](#) | [The Legal Intelligencer](#)**

Pennsylvania's Land Recycling and Environmental Remediation Standards Act (Land Recycling Act) of 1995, or Act 2, established Pennsylvania's program for the voluntary cleanup of contaminated sites. Act 2 requires the Environmental Quality Board (established to, among other things, formulate, adopt and promulgate rules and regulations) to establish uniform statewide health-based standards so that any voluntary cleanup conducted under the act eliminates any substantial present or probable risk to human health and the environment.

Although those standards were originally promulgated in 1997 and codified in Chapter 250, Act 2 recognizes that standards must be updated over time as more and better science became available. In 2011, the Environmental Quality Board amended Chapter 250 to add 25 Pa. Code 250.11, which provides that the Pennsylvania Department of Environmental Protection will review scientific

information relating to constituents of concern as that information becomes available and propose changes to the Environmental Quality Board no more than 36 months after the most recently promulgated MSCs are established.

MSCs (medium-specific concentrations) are developed based on health-based standards adopted by the Federal government, Federal health advisory levels, and other sources. As scientific understanding evolves, those standards are adjusted—upwards and downwards, based on the review required by Section 250.11. That constantly changing science—and the obligation to update statewide health standards—can both benefit remediating parties and introduce new complications.

Act 2 was developed to encourage the voluntary cleanup and reuse of contaminated sites. A remediating party will receive closure for identified constituent of concerns that it demonstrates to PADEP are at levels that do not pose an unacceptable risk to human health and the environment. So while a party may achieve closure for a site, if no MSC has been established then closure for that constituent is unavailable.

Two recent examples illustrate the barriers toward closure—and uncertainties that Act 2 is meant to eliminate—that remediating parties face. It should not come as a surprise to anyone reading this that emerging contaminants like per- and polyfluoroalkyl substances (PFAS) have introduced uncertainty into the voluntary cleanup process. Until recently, a party remediating a site at which PFAS was a potential contaminant was left without recourse for obtaining closure for any PFAS compound. In November 2021, Pennsylvania adopted MSCs for PFOA, PFOS and PFBS in groundwater and soil while the process to adopt a MCL in drinking water continues. Although the implications of the adoptions of MSCs can be confusing in some contexts, remediating parties now may obtain closure under Act 2 for those constituents.

But sometimes science evolves quickly and remediations progress slowly. Will a party remediating with these recently adopted MSCs be facing new MSCs before a project achieves closure? There is a mishmash of PFAS regulations across states, and federal regulations head toward being finalized. Can a remediating party feel comfortable proceeding with a remedial action based on the current MSCs when new science may suggest different values?

The board addressed that in answer to comments on the adoption of 25 Pa. Code 250.11 in 2011. The board explained that it was “sufficient to state that any revised standards will become effective upon publication in the Pennsylvania Bulletin.” As the board further explains, “the entire rulemaking process, from the time the initial draft rules are first publicly available, through the proposal of the rules and the official comment period, until the final rules are promulgated, typically takes over two years. This provides licensed professionals working on remediating projects sufficient notice of likely changes.” The takeaway message, in the context of emerging contaminants that are the recipients of substantial scientific study, is to remain aware of the developing science and keep a close eye on the Pennsylvania Bulletin.

The Environmental Quality Board is not only focused on emerging contaminants, though, and Section 250.11 has also been used to take into account the experience of PADEP and remediating parties have had in remediating sites around the commonwealth. One such example is a proposed update to the MSC for vanadium. The current MSC is based on a toxicity value that has led to cleanup standards that are similar to—and sometimes below—naturally occurring vanadium levels in

soil. Those standards have created challenges both for remediation and for obtaining clean fill in those remediation and redevelopment projects.

Under these new MSCs, based on updated toxicity values, remediating parties should be able achieve closure without having to address naturally occurring vanadium in soil.

Act 2 is designed to give certainty to remediating parties, through cleanup standards, standardized reviews and time limits and liability relief to both current and future owners of properties, allowing the beneficial reuse of contaminated properties. Remediating parties can feel comfortable that they will obtain liability relief for contamination identified in the investigation and remedial process. As this article demonstrates, though, parties remediating under Act 2 should remain attuned to developing science on contaminants and don't forget to look at the Pennsylvania Bulletin!

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