

## **Current State of Cleanup Levels and Approaches for Petroleum-Contaminated Sites**

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**Background/Objectives.** Risk evaluations for petroleum release sites present complex and unique challenges to site managers, risk assessors, regulators and other stakeholders. Risk characterization based on total petroleum hydrocarbon (TPH) concentration measurements in different environmental media may be used for risk-based corrective actions at petroleum release sites. However, chemical compositions of petroleum hydrocarbon mixtures are complex and subject to change over time due to fate and transport processes. While methods to characterize risk for individual constituents are well accepted, methods to assess cumulative risk posed by the multitude of petroleum-related compounds typically included under the term “TPH” have yet to be widely accepted and employed. This is compounded by inconsistencies between published guidance for the risk-based assessment of TPH-related compounds and requirements for expensive laboratory tests that might not be available in many areas of the country. Better guidance is needed to help states develop consistent methodology for establishing risk-based cleanup levels and for establishing and approving methods for risk-based corrective action.

**Approach/Activities.** A state survey was conducted by the Interstate Technology and Regulatory Council (ITRC) TPH Risk Evaluation at Petroleum-Contaminated Sites Team. A total of 53 complete responses were recorded from 44 states (a few with multiple programs), Washington, DC, and Puerto Rico.

**Results/Lessons Learned.** The goal of the survey was to collect information on state agencies’ use of TPH data within their regulatory programs and to help develop the ITRC technical and regulatory (Tech Reg) guidance that describes best practices for evaluating TPH risk. This presentation will highlight the various approaches used by different states and programs, analysis of the survey results, and its implementation in the ITRC Tech Reg guidance.