UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

OSWER 9200-2.72

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MEMORANDUM

SUBJECT: Operational and Functional Determination and the Transfer of Fund-lead Vapor Intrusion Mitigation Systems to the State

FROM: James E. Woolford, Director
Office of Superfund Remediation and Technology Innovation (OSRTI)

TO: Superfund National Policy Managers (Region I – X)
Office of Regional Counsel (Region I – X)

PURPOSE

The purpose of this memorandum is to transmit the final guidance entitled "Operational and Functional Determination and the Transfer of Fund-lead Vapor Intrusion Mitigation Systems to the State."[1]

This Directive presents the Office of Superfund Remediation and Technology Innovation's (OSRTI) guidance for making the operational and functional (O&F) determination for vapor intrusion (VI) mitigation systems which guides when these systems transfer to the State for operation and maintenance (O&M).

For purposes of this guidance, vapor intrusion is the migration of volatile chemicals from the subsurface into an overlying building. This guidance does not, however, address the evaluation of risk associated with the migration of those volatile chemicals from the subsurface into overlying buildings.

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[1] This guidance provides information to the public and to the regulated community on how EPA intends to exercise its discretion in implementing its regulations at contaminated sites. It is important to understand, however, that this document does not substitute for statutes EPA administers or their implementing regulations, nor is it a regulation itself. Thus, this document does not impose legally binding requirements on EPA, States, or the regulated community, and may not apply to a particular situation based upon the specific circumstances. Rather, the document suggests approaches that may be used at particular sites as appropriate, given site-specific circumstances. This guidance may be modified in the future.

BACKGROUND

If it is determined that the indoor air quality presents a risk to the building's occupants and a Fund-lead CERCLA remedial action is appropriate, the Remedial Project Manager can select a single remedy or combination of passive and active remedies to control vapor intrusion until the source of the vapors is eliminated.[2] Typically, upon completion of Fund-lead CERCLA remedial actions, EPA will, concurrently with the State, determine if the remedy is operational and functional.

Operational and Functional

The O&F determination for a Fund-lead CERCLA remedy typically occurs either one year after construction is complete, or when the remedy is determined concurrently by EPA and the state to be functioning properly and performing as designed. The completion date of the O&F determination is documented in a letter from EPA to the appropriate parties (in the case of a Fund-lead site, the State). For Fund-lead remedies, the operational and functional determination generally guides when the Region transfers the remedial action to a State for operation and maintenance.

Operation and Maintenance

For Fund-lead remedies, CERCLA§104(c) requires states to pay for or assure payment of all future O&M costs. Generally, prior to the start of a Fund-lead remedial action, the State provides its assurance in accordance with CERCLA § 104(c)(3)(A) to assume responsibility for O&M of the implemented remedial action(s) for the expected life of such action(s).

The planning for O&M should start in the early stages of the Superfund remedial design process. Early communication and preparation helps clarify the State's financial and performance responsibilities and aids in the transition of the remedy to O&M. A State's O&M responsibilities generally should be designed to ensure that the remedial action remains protective of human health and the environment; these responsibilities may include the repair and replacement of all damaged, worn and obsolete equipment and structures.[3]

IMPLEMENTATION

O&F Determination for Vapor Intrusion Mitigation Systems

Once the physical construction of all reasonably anticipated VI mitigation systems is complete, the State and EPA will normally conduct a joint inspection to determine if the VI

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[2] Examples of passive and active approaches are described in 1) ITRC (Interstate Technology & Regulatory Council), 2007, "*Vapor Intrusion Pathway: A Practical Guideline.*" VI-1, Washington, D.C.: Interstate Technology & Regulatory Council, Vapor Intrusion Team. www.itrcweb.org, and 2) "*Indoor Air Vapor Intrusion Mitigation Approaches,*" (EPA/600/R-08-115, October 2008)

[3] A more complete overview and description of the O&M planning and implementation process in Superfund can be found in OSWER Directive 9200.1-37FS *"Operation and Maintenance in the Superfund Program"* (EPA 540-F-01-004, May 2001).

mitigation systems are functioning properly and are performing as designed; this can occur even if final clean-up levels or other remedial action requirements have not yet been achieved. Typically, an O&F determination for VI mitigation systems would include a mechanical or maintenance inspection to evaluate system performance.

For long-term response actions (LTRA), any additional VI mitigation systems installed after the initial O&F determination is complete would typically be considered part of the ongoing LTRA and not subject to a new O&F determination.[4] The installation of any additional VI mitigation systems typically would not affect the ten-year LTRA timeframe to the extent installation of these systems is designed to ensure the ongoing effective and efficient operation of the remedy that has been selected in the ROD.

The Start of O&M for Vapor Intrusion Mitigation Systems

After the O&F determination has been made, the VI mitigation systems generally should transfer to the State immediately as part of its O&M responsibilities, unless the VI mitigation systems are a component of a LTRA remedy. Where the VI mitigation systems are considered part of the LTRA, EPA normally operates it for up to 10 years following the initial O&F determination.[5] If the cleanup levels or RAOs have not been achieved upon completion of the ten year LTRA period, the remedy and remedy components typically transition to the State for O&M.[6]

For questions regarding this policy, please contact David E. Cooper at 703-603-8763.

cc: Barry Breen, OSWER
OSRTI Managers
Brigid Lowery, Land Revitalization Staff
Debbie Dietrich, OEM
David Lloyd, OBCR
Matt Hale, OSW
Gail Cooper, FFRRO
Marcia Mulkey, OSRE
Dave Kling, FFEO
John Michaud, OGC
Joanne Marinelli, Superfund Lead Region Coordinator, US EPA Region 3
NARPM Co-Chairs

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[4] If the installation of additional VI systems results in a significant change to the remedial action being implemented, however, the Remedial Project Manager normally should prepare an explanation of significant differences (ESD); if the installation results in a fundamental change, the RPM normally should prepare a ROD amendment. OSWER Directive 9200.1-23P, *"A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents,"* (EPA 540-R-98-031, July 1999)

[5] Under the NCP, the ten-year period between the O&F determination and the start of O&M generally is a long-term response action (LTRA). See 40 CFR § 300.435(f)(3).

[6] See Web page http://www.epa.gov/superfund/cleanup/postconstruction/ltrafactsheet.pdf for OSWER Directive 9355.0-81FS, *"Transfer of Long-Term Response Actions (LTRA) to States,"* (July 2003).

OSRTI Documents Coordinator
Federal Facilities Leadership Council