

Morse Industrial Corporation Operable Unit #3

Ithaca South Hill

Proposed Remedial Action Plan

June 17, 2010

Presented by the New York State Department of Environmental Conservation
in cooperation with
New York State Department of Health

NYS Department of Environmental Conservation



Agenda

- Introduction
- Site History
- Remedial Investigation/Alternatives Analysis
- Proposed Remedy
- Questions



Citizen Participation

- Complete copies of site documents and related material are placed at the document repositories:
 - Tompkins County Public Library
 - NYSDEC Region 7 – Syracuse Office
 - www.dec.ny.gov/chemical/8669.html
- 30-day Public Comment Period established (June 7, 2010 - July 9, 2010)
- Public meeting is held June 17, 2010



Citizen Participation (continued)

Next Steps

- Comments will be reviewed by the NYSDEC and a responsiveness summary will be prepared.
- The proposed remedy may be modified due to comments received from the public.
- A Record of Decision (ROD) is issued by the NYSDEC which describes the remedy selected and why it was chosen.



What is an Operable Unit?

- An operable unit represents a portion of the site remedy that for **technical or administrative** reasons can be addressed separately to eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination.



Site Location

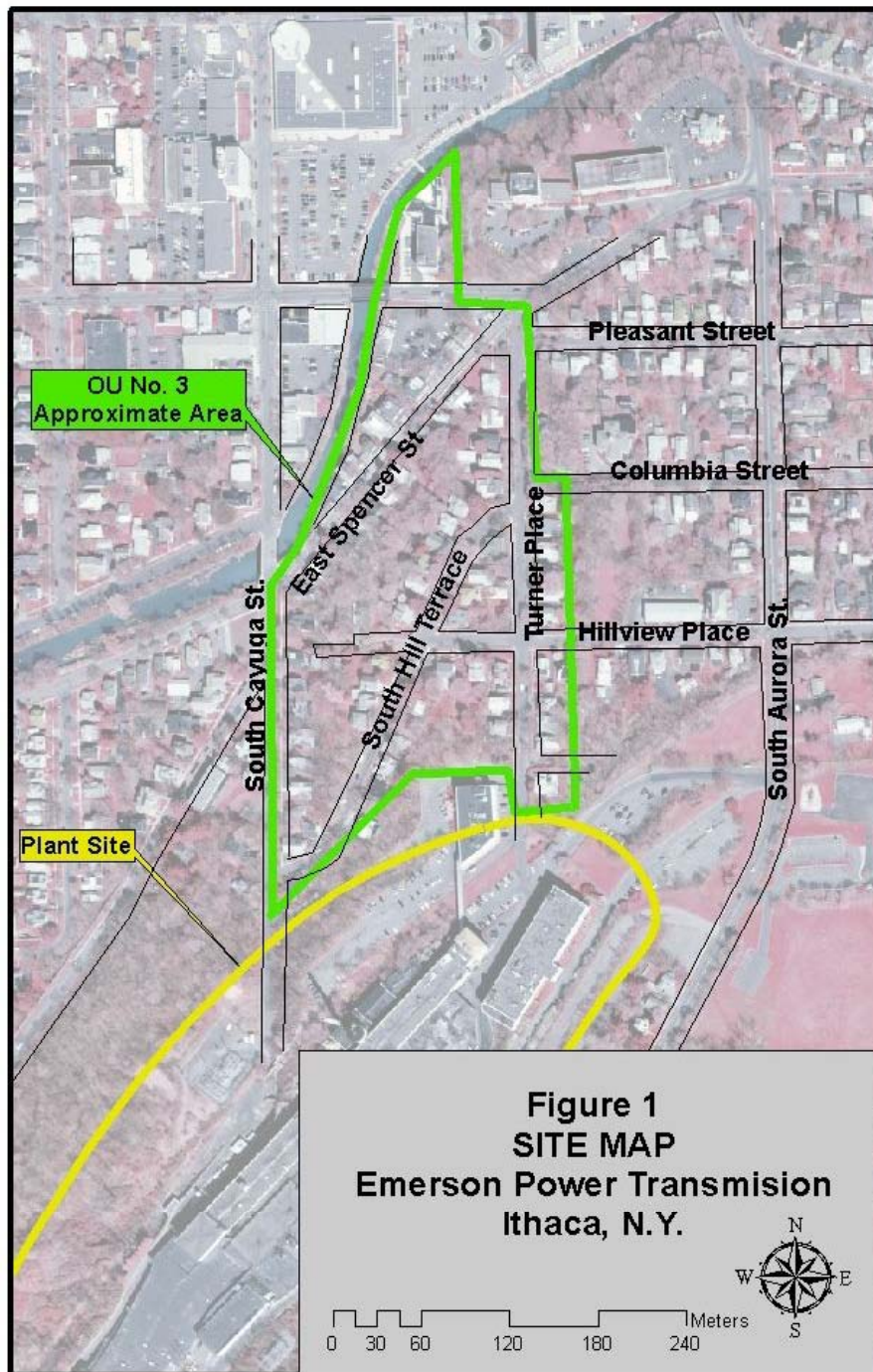




Figure 2
OU No. 3
Emerson Power Transmission
Ithaca, N.Y.



Operational/Disposal History

- On-site manufacturing of power transmission equipment.
- Trichloroethene (TCE) and other solvents had been used as for parts cleaning and degreasing.
- Releases of these solvents into a leaky sanitary sewer system resulted in TCE entering the environment.



OU3 Site Investigation History

- May 1991 – NYSDOH completed Indoor air sampling of 10 private residences.
- June 2004 - Vadose zone monitoring completed.
- Fall 2004 - March 2007 - Soil vapor intrusion assessments of private residences and public structures (Phases I through V).
- August 2007 - Soil vapor and manhole vapor sampling along sewer lines.
- October 2007 - Geophysical survey to determine the lateral extent of subsurface conductive features.
- July 2008 - Vent stack, sewer manhole, and ambient air sampling.
- July 2008 - Supplemental investigation of sanitary sewers.

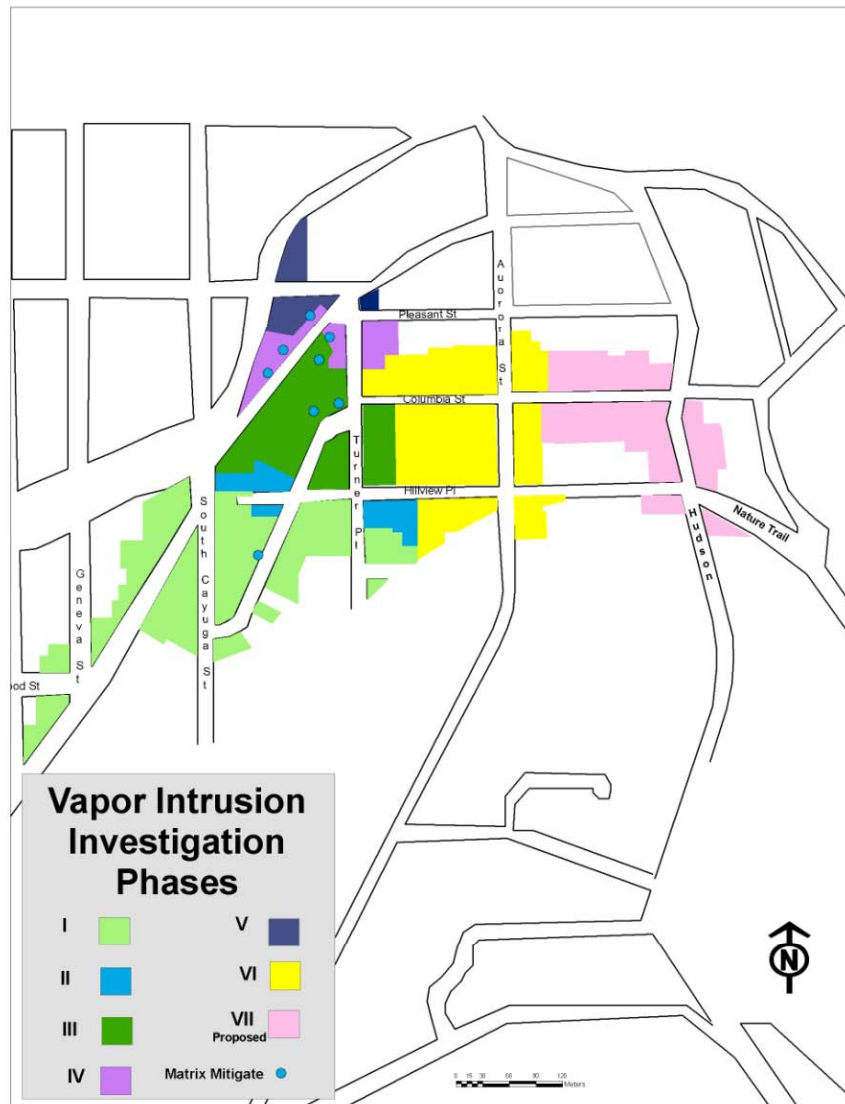


OU3 Interim Remedial Measure (IRM)

- February 2005 – Initiation of Installation of sub-slab depressurization systems (i.e., vapor mitigation systems) on private residences.
- As of mid-May 2010:
 - 50 mitigation systems (9 matrix, 41 voluntary) had been installed by EPT;
 - 9 are pending installation; and
 - 7 retain outstanding offers from EPT.
- 40 No Further Action



South Hill Vapor Intrusion Study Area



Legend

- Conceptualized Historic Sewer Discharge
- Vapor Migration Path

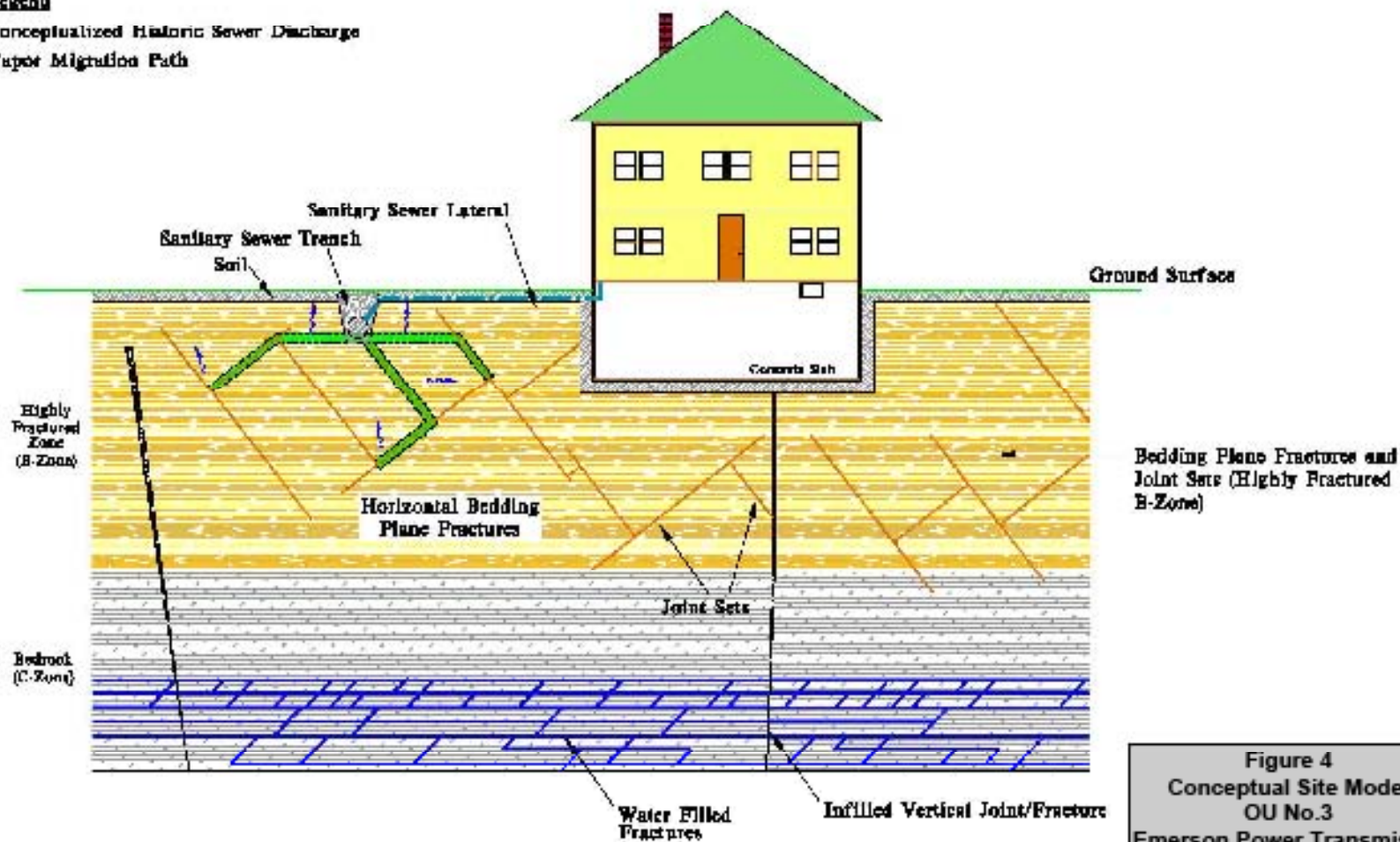


Figure 4
Conceptual Site Model
OU No.3
Emerson Power Transmission
Ithaca, N.Y.

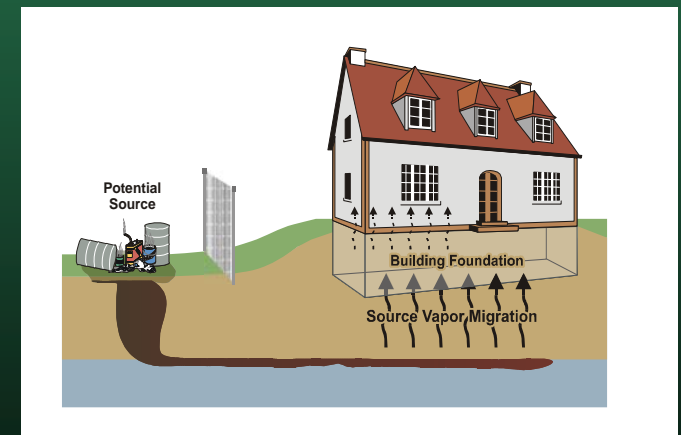
Human Exposure Pathway:

- An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site.



Potential Routes of Exposure

- Direct Contact (touch)
- Ingestion (eat, drink)
- Inhalation (breathe)
 - *Soil Vapor*
 - *Soil Vapor Intrusion (SVI)*



Site-Specific Complete Human Exposure Pathways:

- NONE
 - No one drinks the groundwater.
 - Surface soils are not contaminated.
 - Operation of sub-slab depressurization systems (SSDSs) mitigates the potential for SVI to impact indoor air quality.



Alternatives Analysis

- The goal of this analysis is to select a remedy that would restore the site to pre-disposal conditions to the extent practical.
- At a minimum the chosen remedy shall eliminate or mitigate all significant threats to public health and the environment.

NOTE: see “South Hill Sanitary Sewer Network Alternatives Analysis Report”, Sept. 2009



Remedial Action Objective

- Mitigate impacts to public health from existing, or the potential for, soil vapor intrusion into the indoor air of buildings near a site.



Remedial Alternatives

- **Alternative 1: No Further Action**
- **Alternative 2: No Further Action with Site Management (\$536,000)**
- **Alternative 3: East Spencer Street Sewer Line Focused Excavation and Venting (1,143,200)**
- **Alternative 4: Soil Vapor Extraction on Sewer Lines (4,147,000)**
- **Alternative 5: Blanket Mitigation (2,999,650)**



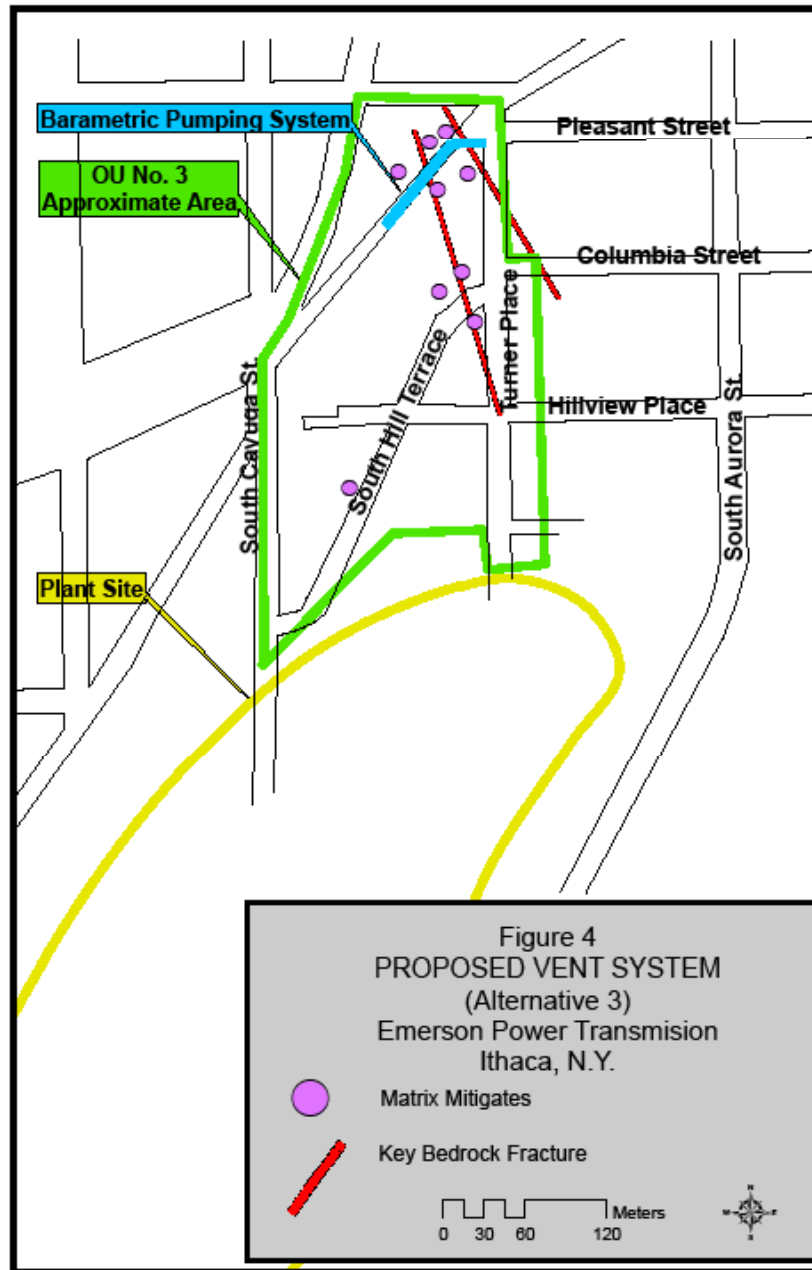
Alternative Evaluation Criteria

- Protection of Human Health and Environment
- Compliance with SCGs
- Short-term Effectiveness
- Long-term Effectiveness
- Reduction of Toxicity, Mobility, or Volume
- Implementability
- Cost Effectiveness



Proposed Remedy

- Remedial Design Program
- The removal and replacement of approximately 300 feet of sanitary sewer line (and removal of associated overburden and bedding material, if present) along East Spencer Street beginning at its intersection with Turner Place (Figure)
- Installation of a slotted or perforated pipe within the bedding material to passively vent soil vapor that enters the sewer trench using a wind turbine or barometric pressure-actuated device.
- Continued operation, maintenance, and monitoring of the previously installed vapor mitigation systems and the venting system.
- A provision for SVI evaluation/mitigation into any buildings developed, significantly changed, or that become occupied on the site.
- Capital Cost = \$596,000; Annual Cost = 44,100

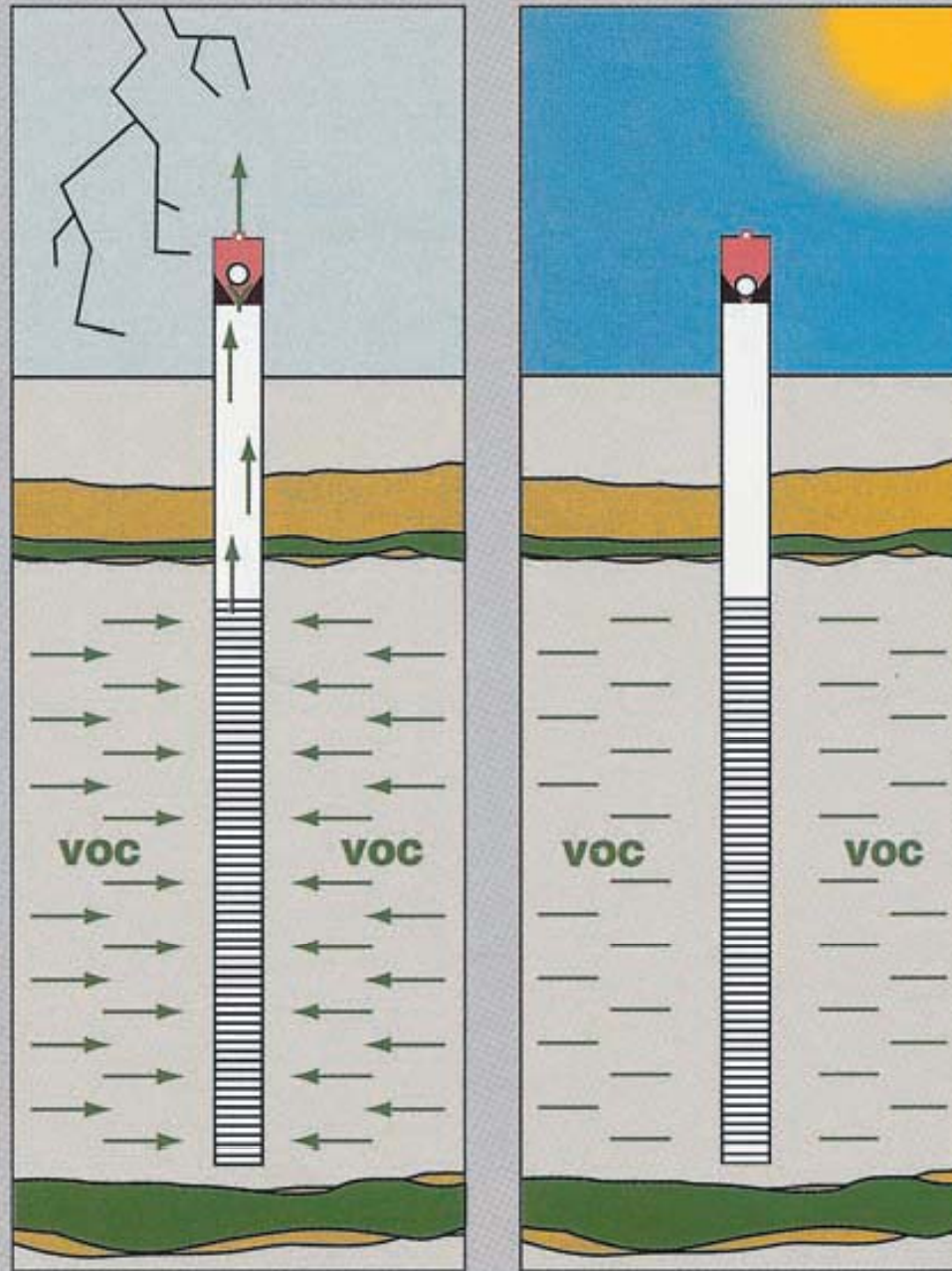








Barometric Pressure- Actuated Venting System



Next Steps

- Record Of Decision (ROD)
 - Description of the Final Decision on the Remedy
 - Responsiveness Summary
 - Administrative Record



Implementing the Clean-up

- Detailed Design of the Remedy
- Remedial Action (Implementation)



Written PRAP Comments

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Deadline is July 9, 2010



QUESTIONS?

