IEC Case Study

Presented by:

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Site Background

- Operating dry cleaner in strip mall
- Confirmed release with soil and ground water impacts
- Site related contaminants of concern (COCS) – PCE and degradation compounds
- Remedial investigation initiated, but not completed
- Initial Receptor Evaluation completed
Initial Phase of VI Investigation

- Receptor Evaluation information
- Soil and ground water data
- Determination of structures to be included in VI sampling
- VI sampling – subslab (SS) with contingent indoor air (IA)
IEC Confirmed

- PCE above Rapid Action Levels (RALs) in several retail and at residence
- Operational considerations for active dry cleaner leasehold
- IEC regulatory/mandatory time frame (RTF/MTF) clock starts at confirmation of VI IEC
- Immediate notification to DEP Hotline and Case Manager (if any) — (IEC RTF)
Interim Response Actions – 14 Days

- Evaluate interim response actions – dry cleaner, retail leaseholds, residence

- Options – air purifier, seal cracks/obvious subsurface pathways, ventilation/HVAC mod.

- Implement interim response actions

- Submit IEC form, info & notifications within 14 days of VI IEC confirmation (IEC RTF)
Interim Response Actions – 14 Days

- Communicate with DEP IEC Case Manager

- Begin planning of engineered system response action (next IEC RTF)

- Begin planning of additional receptor/site characterization

- Protection of receptors is the primary concern
Subsequent Phase of VI Investigation – 60 Days

- Additional step out sampling based upon existing data (SS, IA, GW) within 60 days (IEC/Receptor Evaluation RTF)

- Continue with iterative process as needed based upon data & professional judgment

- Goal is to complete VI investigation & relevant components of remedial investigation ASAP
Subsequent Phase of VI Investigation – 60 Days

- Communicate with DEP IEC Case Manager to eliminate potential non-compliance situation

- Evaluate need for extension requests
Engineered System Response Action – 60 Days

- Engineered System Response Action needs to be initiated and form submitted within 60 days of VI IEC confirmation (IEC RTF)

- Multiple IECs and/or VCs will have separate clocks/time frames

- Typically requires prioritization of actions based upon sensitivity of receptors – work with DEP IEC Case Manager to establish extensions to time frames
Engineered System Response Action Report – 120 days

- Updated report, forms, tables and maps must be submitted within 120 days of VI IEC confirmation (IEC RTF)

- If multiple IECs/structures, include all available info/data with initial report, and then provide updates as needed
DEP does not want formal work plans for Engineered System Response Action Reports – keep it simple

- Verbal and email communication
- Presumption is subsurface depressurization for IEC structures
- Other “engineered systems” will likely require more detailed DEP IEC Case Manager review/approval
Initiation of IEC Source Control – 1 Year

- Initiate control of the IEC contaminant source and submit report and form within 1 year of VI IEC confirmation (IEC RTF with associated mandatory time frame)

- “Source control” not specifically defined
  - Focus/DEP expectation is removal or initiate remediation of gross mass/source material
  - Dissolved phase GW contamination is not part of “source control”
  - Communicate DEP IEC Case Manager to reduce potential for non-compliance

- Establish monitoring and maintenance plan for systems and affected structures
QUESTIONS?
IEC Program Status

- 72 LSRP IECs & VCs
- 70 Publicly Funded IECs
- 85% of LSRP cases are VI
Problems & Misconceptions

- IECs become VCs when levels decrease
- Reporting IEC or VC with no pathway
- Sampling when COC is used in building
- IEC complete after receptor control
- No information submitted with IEC form
- No Receptor Delineation for IECs
Future Changes

- New Technical Rules for May 2012
- IEC Guidance will be revised for May 2012
- Revised VIG: Expanded Operation, Maintenance & Monitoring
Questions?