



Types of Remedial Activities

Passive Remediation

- Natural attenuation processes:
 - Adsorption
 - Absorption
 - Advection
 - Dispersion
 - Diffusion
 - Dilution from recharge
 - Volatilization



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Types of Remedial Activities

Passive Remediation (cont.)

- Other types of natural attenuation processes:
 - Aerobic biodegradation
 - Anaerobic biodegradation
 - Chemical oxidation processes
 - Hydrolysis and other reactions



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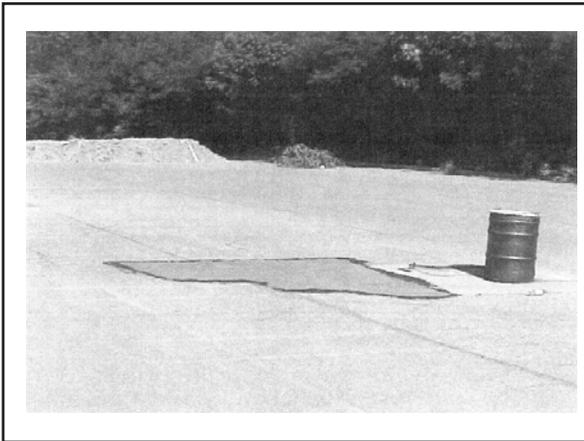
Types of Remedial Activities

Passive Remediation (cont.)

- Natural attenuation conclusion must be supported
- “Monitored natural attenuation” rather than “natural attenuation”
- Standards met during a certain time frame



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Types of Remedial Activities **Institutional Controls**

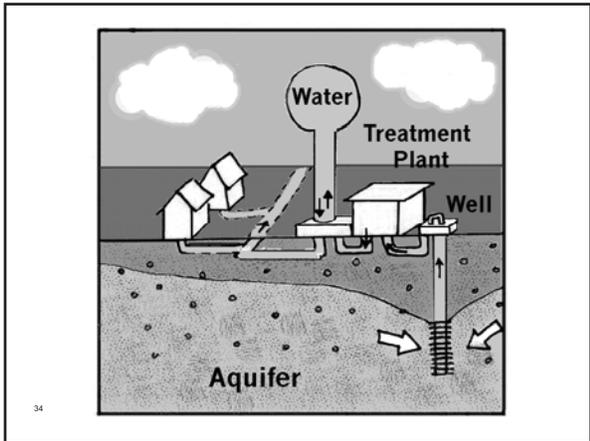
- Key points
 - Established by recording deed restriction (environmental covenant)
 - Transferable
 - Eliminates or mitigates exposure to hazardous substances or petroleum
 - Monitored, maintained, and enforced



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Interim measures

- Mitigate existing and reasonably anticipated pathways to human receptors
- Exists until permanent remedy in place

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Risk Mitigation Measures and Risk Mitigation Plans

- Contained in risk mitigation plan
- Implemented as:
 - Condition of covenant, or
 - Within O&M plan
- Must have periodic reporting

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Risk Mitigation Measures

- Apply when there is potential exposure to construction workers before or after issuance of NFA
- Apply if POC is breached

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Risk Mitigation Measures

- Documented in risk mitigation plan
- Safety precautions to mitigate or eliminate human exposure
- Protect workers during construction or excavation activities



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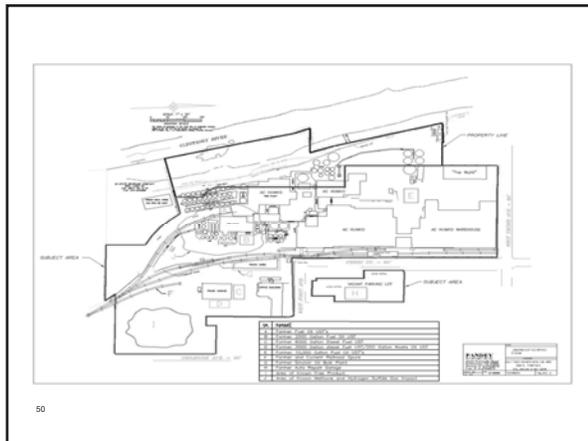
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Risk Mitigation Plan Contents

- Purpose
- Health risks summary
- Precautions taken against exposure
- Handling of media
- Timeline
- Location of RMP implementation

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Risk Mitigation Plan Contents (cont.)

- Property map
- Notice to contractors and subcontractors
- Summary of precautions to be communicated
- Annual notification requirements
- Termination criteria



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