DOE Perspectives on Performance-Based Contracting Impacting Innovative Technology Use

Federal Remediation Technologies Roundtable

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Scope of DOE Cleanup Program

- Over 60 installations in 22 states

- Cleanup program-D&D of nuclear facilities, groundwater and soil remediation, and the stabilization and disposal of nuclear waste [Estimated cost from FY 05-35 is ~ $80-90B]

- Primary contaminants: radionuclides, metals, and dense nonaqueous-phase liquids [Estimated cost for soil and groundwater remediation from FY 05-35 is ~ $10-15B]

- 222 groundwater plumes with 302 remedies either confirmed or proposed [more than one remedy often deployed to cleanup a plume]

- Different geologic and geochemical characteristics

- Mixture of Contaminants
Ground Water Remedies Identified

- Monitored natural attenuation
- Pump and treat
- Innovative
- Non-innovative
- No action
Ground Water Contaminants

- VOCs
- Rad
- Tritium
- Metals
- Nitrates
- Sulfates
- Fuels
- Explosives
Drivers for DOE Cleanup Program

• Applicable Federal and State Regulations
• Safety
• End use of property
• Cleanup standards versus technology capability
• New and emerging technologies
Cleanup Technologies and Performance Measures

• Investment in technology development and deployment is linked to corporate performance measures, performance management plans, site end use, and site baselines
• Focused on four sites - RL, ORP, ID, & SRS
• Technologies include: Passive Reactor Barrier; Dynamic Underground Stripping; and In-Situ Redox Manipulation
• Development of integrated groundwater exit strategies
• Performance measures: ROD approved & Remediation Complete at a Site