

# DOE Long Term Stewardship Workshop

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## Trusts and Long Term Stewardship (LTS) at Decommissioned Nuclear Facilities

Presented by

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# DOE Long Term Stewardship Workshop

*THE PREMISE IS:*

*Financial Assurance is a Critical Component of Successful LTS Oversight at Sites Remediated in Whole or in Part by Site Use Restrictions*

# DOE Long Term Stewardship Workshop

- I. Introduction
- II. D&D/Remediation Criteria
- III. Questions about Continuing Viability of LTS-  
Particularly *Financial Assurance*
- IV. Trusts

# DOE Long Term Stewardship Workshop

## I. Introduction

- Criteria for *Site* D&D/Remediation
  - Vary with Nature of Contaminants -- Radiological, Nonradiological and Mixtures
  - Traditionally Initial Focus on Treatment and Removal and With The Goal of -
  - Returning to *Pristine* Levels – (i.e., *unrestricted use*)
- Costs, Effectiveness, and *Reality Sets In*
  - Cost of Treatment Varies with Site Specific Characteristics
    - Nature of Contaminants
      - Rad or NonRad (Longlived Radionuclides or Short Half Lives)
    - Nature of The Contaminated Media
      - Soil, Rubble, Groundwater

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- Extent and Profile of Contamination
  - Multiple Radionuclides, Multiple Soil Horizons, Groundwater
- Volume of Contaminated Materials
- Availability of and Proximity to Disposal Facilities
- Effectiveness of Treatment Varies with:
  - Rad versus Nonrad (i.e., Often Limited With Rads)
  - Site Specific Characteristics (i.e., Near Population Center, Wet or Dry Climate, Groundwater Quality?)
  - Contaminated Media (Soils and Groundwater?)
  - Extent and Profile of Contamination
  - Volumes of Contaminated Materials

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## I. Reality Sets In

- Questionable Effectiveness of Treatment Often Collides with Extremely High Costs of Treatment (i.e., Pump and Treat)
- Highly Contaminated Sites (i.e., Complex Contaminant Profiles, Large Volumes, Groundwater Problems) Can Demand Consideration of Other Options

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- In Situ Remediation w/ or w/o Some Treatment, w/ or w/o Some Removal in Conjunction w/:
  - Engineered Barriers
  - Site Use Restrictions
  - Informational Devices
  - Combinations Thereof (*i.e., layering*)
  - *and, LTS*

# DOE Long Term Stewardship Conference

- Questions about Continuing Viability of LTS
  - Appropriate Entities (eg. Corporations versus Governmental Entities)
    - Long Time Frames (e.g. 1,000 years)
    - Fundamental Purposes Differ
    - Governmental Entities Preferred

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- Questions About Financial Assurance for Governmental Entities
  - Long Time Frames (i.e., sustainability)
  - Political and Legislative Obstacles (i.e., appropriations)
  - *So, How to Provide LTS That Is Financially Sustainable and Properly Accountable so That In Situ D&D/Remediation (Including Site Use Restrictions) is a Viable Option?*
  - The Answer May Be Trusts!

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## II. D&D/Remediation

- Definition of D&D = *Unrestricted Use*
  - Presumption That *First* Must Treat Contamination
  - Presumption That Untreatable Materials Will Be Removed For Disposal
- Highly Contaminated Sites Challenged the Viability of The *Unrestricted Use* Criteria

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- Costs
  - Transactional
  - Treatment (rad and nonrad)
  - Disposal
  - Transportation
  - Verification
- Effectiveness
  - Virtual Impossibility In Some Cases Due to Costs and Questions About Value of Treatment (e.g., Pump and Treat)

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- *Reality* Requires Consideration of Other Options
  - Engineered Barriers
    - EPA/NRC Uranium Mill Tailings Standards
      - *Passive* Engineered Controls for 1,000 years Without *Active Maintenance*
  - Durable* Site Use Restrictions
    - UMTRCA Requirement to Transfer to Governmental Custodian
    - NRC D&D Regulations – 10 CFR Part 20 1401 et seq. and NMSS Standard Review Plan 16.0 – Restricted Use/Alternate Criteria – Tiered System
    - EPA CERCLA Guidance Regarding Institutional Controls (OSWER 9355.0 – 74FS-P) Even Where ICs Prime Remedial Option – EPA Considers It A *Limited Action* And Not A *No Action*

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- Informational Devices
  - Deed Annotations
  - Site Markers
- Combinations Of All Of The Above (i.e., *Layering*)

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- LTS Necessary For Long Time Frames
  - Surveillance and Monitoring Regarding Changes At Site
    - (E.g., Natural Wear and Tear Resulting in Barrier Degradation Leading to Groundwater Impacts)
      - DOE UMTRCA Title I and Title II LTSPs
  - Maintenance If Necessary
  - In Spite Of EPA/NRC Uranium Mill Tailings Assumptions About *Passive Controls*
    - Catastrophic Impacts - - “Catastrophe Is The Responsibility Of Government”

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- Enforce Site Use Restrictions
  - Monitor to See Not Inadvertently or Otherwise Extinguished
  - Take Actions to Assure No Inappropriate Uses
  - Maintain Informational Devices

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## III. Questions about Continuing Viability of LTS – Particularly *Financial Assurance*

- What Type Entity Is Most Appropriate In View Of Long Time Frames?
  - Corporation/licensee
    - Longevity
    - Inherent Purpose (i.e., profit)
  - Governmental Entity
    - Longevity
    - Inherent Purpose (i.e., protect public health)
    - Must Have Statutory Authority
      - Utah vs. DOE (UMTRCA and NWPA)
  - Governmental Entity Preferred
    - UMTRCA
    - NWPA

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- Governmental Entities Generally Must Have Funding *Authorized and Appropriated*
  - Anti-Deficiency Act (31 USCS§1341)  
“Prevents Any Federal Agency From Spending Money In Excess Of Funds Appropriated By Congress.”
  - U.S. Constitution: Article I, Section 9, Clause 3 States:  
“No Money Shall Be Drawn From The Treasury, But In Consequence Of Appropriations Made By Law.”

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- Given Congress' Plenary Power of Appropriation, Long Time Frames and The Vagaries of the Political Process, Can Long Term Funding Be Assured?
  - What About Funding From Private Sources (eg. Licensee)
    - Miscellaneous Receipts Act (31 USC §484 Now 31 USCS §3302) Mandates That All Monies Received By Government Must Be Deposited in Treasury To *Be Appropriated By Congress*
    - Legislation Could Change This But Hostility Likely From:
      - Congress
      - OMB
- What About Using Trusts?

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## IV. Trusts

- What is a Trust?
- What Beneficial Attributes Does a Trust Bring to LTS?
- How to Use a Trust for LTS Purposes.

# DOE Long Term Stewardship Workshop

- Trust is a Legal Instrument Which Conveys Property To Use and Manage For The Benefit of the *Beneficiary*
  - Trustee Has Responsibility to Manage Trust Assets for Purposes of Trust
  - Trust Purposes Must Be *Legal* But There Is Much *Flexibility in Trust Construction*
  - Trustee Held to Highest Legal Standards to Manage Trust Assets
  - *Potential Fiduciary* Liability for Mismanagement by Trustee Provides Strong Check on Irresponsible Actions

# DOE Long Term Stewardship Workshop

- Trustee Qualified Individual or Entity (e.g. Lawyer, Bank, Insurance Co.)
- Trustee Can Be Replaced Per Trust Provisions Or By court According to State Law
- So Trustee And Trust Can Operate Over Long Time Frames (eg. 1,000 years)

## DOE Long Term Stewardship Workshop

- Beneficiary Can Be Person  
Organization (e.g. DOE, State)
- Has Legal Standing To Seek To  
Assure Trustee Fulfills Responsibilities

# DOE Long Term Stewardship Workshop

## What Beneficial Attributes Does a Trust Bring to LTS?

- Trusts Are *Flexible* and There are Strong Legal Bases for Assuring that Trust Purposes are Fulfilled by Trustee
- Can Hold Assets for Long Time Frames Involved
- Can Earmark Funds for Trust (i.e., LTS) Purposes
- Avoids Appropriation Process Substitutes Substantial Legal Certainty for Potential Political Uncertainty

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- How to Use Trusts for LTS Purposes
  - Licensee Puts \$ into Trust for LTS Purposes
    - UMTRCA – App. A, Criterion 10 \$250k in 1978 \$ for Surveillance
    - Criterion 10, App. A – Additional \$ Can Be Required for *Active Maintenance*
    - Licensees Put \$ For NRC Approved Site D&D Plan Through Financial Assurance Mechanisms (i.e., bond, letter of credit, etc.) Required by Appendix A, Criterion 9 Appendix A for Uranium Mill Tailings
      - NRC Like DOE Cannot Receive Financial Assurance Directly - - *Miscellaneous Receipts Act*

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- NRC uses *Standby Trusts*
  - NRC the Beneficiary
  - Bond or Letter of Credit is in Trust
  - Licensee Goes Bankrupt
  - NRC Calls Financial Assurance
  - \$ Go Into Trust
  - Trustee Uses Funds for Trust Purposes (i.e., D&D)
  - NRC Oversees Work But Does Not Directly Supervise – Trustee Hires Independent Contractor

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- DOE as Beneficiary of Trust for LTS
  - Licensee Could Fund a Trust
  - Trustee Will Manage Assets for Trust Purposes with DOE as Beneficiary
    - Annual Surveillance
    - Maintenance If Necessary

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- Assets Can Only Be Invested in Government Guaranteed Financial Instruments
  - Appendix A Assumes 1% Interest
  - Government Guaranteed Instruments Could Quadruple that Assumption (i.e., 4-5%)
- DOE Provides Oversight to Assure that Trustee's Contractor Satisfactorily Fulfills LTS Responsibilities
- Potential Questions
  - What To Do With Excess Funds Far Into The Future?
    - Without Large Expenditures In Early Years at 200, 500, 750 or 1,000 years, \$ Would Be Significant
  - How To Fund Financial Assurance Mechanisms Licensee Cannot Afford.