



U.S. DEPARTMENT OF  
**ENERGY**



# DOE-EM/UK NDA Bilateral Agreement Progress in Waste Processing Collaboration

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**EM** Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

[www.em.doe.gov](http://www.em.doe.gov)

# Topic Areas Identified for Collaboration

- **Glass Chemistry/Formulation**
  - **SRNL fabricated and characterized Uranium-bearing glasses under direct contract to Sellafield Ltd at a cost saving of \$100k over originally proposed route**
  - **Joint scopes of work developed on Spinel Formation and Sulfur Solubility in glass which are being completed in the UK with USDOE input**
  - **Multiple information exchange meetings including**
    - **International Glass Corrosion Technical Exchange Meeting, Manchester, January 2011 to coordinate worksopes being conducted in this area.**
- **Thermal Treatments**
  - **Numerous reports provided by DOE to NDA to assist them in making decisions about the most suitable alternatives to vitrification for UK waste streams**
  - **Next step is face-to-face discussions to enable NDA to learn more about DOE experiences with technologies.**



# Topic Areas Identified for Collaboration

- **Hot Isostatic Pressing**
  - Visit to INL from Sellafield, NNL and NDA staff. Multiple opportunities for information exchange identified and under way.
  - Possible opportunity for UK trial work in INL active facilities
- **Tank Corrosion and Structural Integrity**
  - Information exchanged on the types of storage vessels (tanks, silos etc) in use across both DOE and NDA complex
  - Key issue in DOE is corrosion of steel liners whereas key issue in NDA is long term degradation of concrete.
- **Sludge Retrieval and Management**
  - No activity to date

