



**United States of America and  
United Kingdom of  
Great Britain and Northern Ireland  
PARTNERING ACROSS THE POND**

**Waste Management Symposium 2015**



# Session 110: Partnering

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The topic of this session is the formal partnership that was formed to cooperate and collaborate on shared nuclear cleanup interests “across the pond”

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# Who are the Signatories?

- ❖ UK Nuclear Decommissioning Authority
- ❖ UK National Nuclear Laboratory
- ❖ US Department of Energy offices
  - Environmental Management
  - Nuclear Energy



# What is the Statement of Intent?

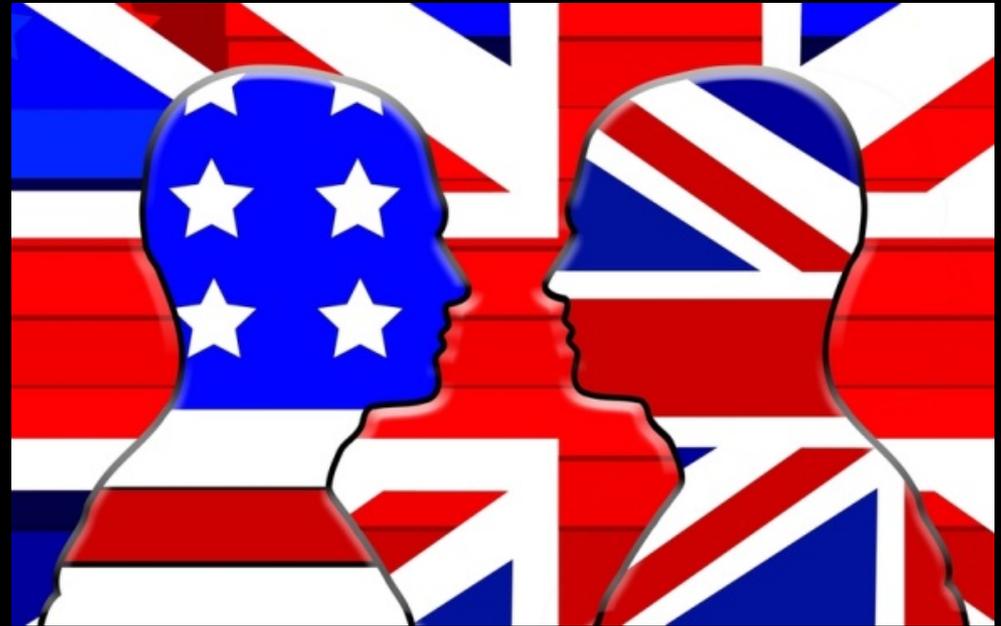
- ❖ **Trilateral agreement for facilitating the exchange of information, technology and personnel in areas related to nuclear cleanup as well as nuclear waste, materials, and fuels management**
  - **2007: DOE EM and UK NDA agreed**
  - **2012: Renewed, DOE NE signed**
  - **2014: UK NNL signed**



# What is the Statement of Intent?

## ❖ It is a RELATIONSHIP

- Collaboration
- Engagement
- Cooperation
- Partnership
- Sharing



# Why do we need the SOI?

- ❖ **Mission similarities**
  - **Scope and scale of nuclear work**
  - **Technical complexities**
  - **Uncertainties and risks**
- ❖ **Governmental liability**
- ❖ **Taxpayer stewardship**
- ❖ **Global “market”**
- ❖ **Generational challenge**



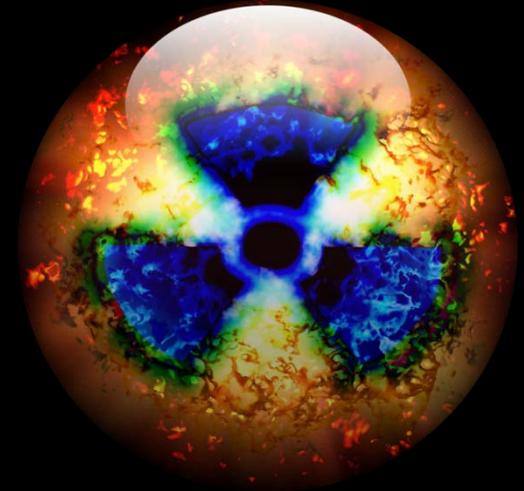
# Why do we need the SOI?

**We are not alone!**



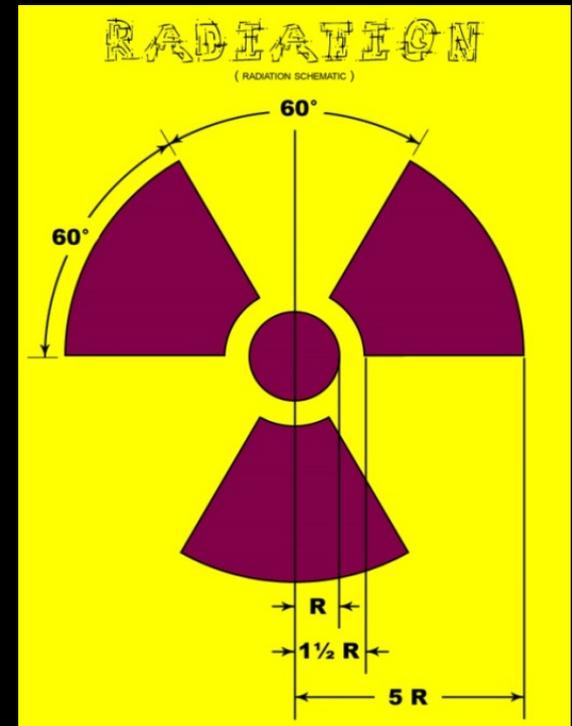
# Early Years of Collaboration

- ❖ **Waste management and stabilization**
  - **Glass chemistry and formulation**
- ❖ **Decommissioning**
  - **Decontamination technologies**
- ❖ **Spent fuel management**
  - **Aging facilities management**
- ❖ **Contract management**
  - **Nuclear supply chain**



# Expanding our Collaboration

- ❖ Consult for engineering design of Hanford Waste Treatment and Immobilization Plant
- ❖ Start-up and commissioning
- ❖ New collaborations and engagements
  - DOE NE and UK Department of Energy and Climate Change
  - Nuclear Innovation Research Advisory Board



# Expanding our Collaboration

## ❖ Knowledge and technology transfer

- 3D sonar for tank sludge mapping
- Decontamination “fogging”
- Robotic snake arm
- Destruction of organics in waste
- Robotics tooling “catalog”
- Power Fluidics™



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# “Future” Collaborations

**nucleargraduates**  
where talent powers the future



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# University Collaboration

## Decommissioning, Immobilisation and Storage solutions for Nuclear Waste Inventories

*Collaborative nuclear research in*



*AGR, Magnox and Exotic Spent Fuels*



*PuO<sub>2</sub> and Fuel Residues*



*Legacy Ponds and Silo Wastes*



*Structural Integrity*



**DISTINCTIVE**



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# Summary

- ❖ **SOI remains an effective instrument for international cooperation and collaboration**
- ❖ **US-UK relationship continues to grow**
  - **Leadership remains committed**
  - **Depth and breadth of knowledge and technology exchanges are increasing**
  - **Engaged in experiential learning**
  - **Interactions among organizations are expanding**
  - **Investing in the next nuclear generation**





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