

Implementing our Statement of Intent: U.S. Department of Energy and AECL/Canadian Nuclear Laboratories

Opening Remarks

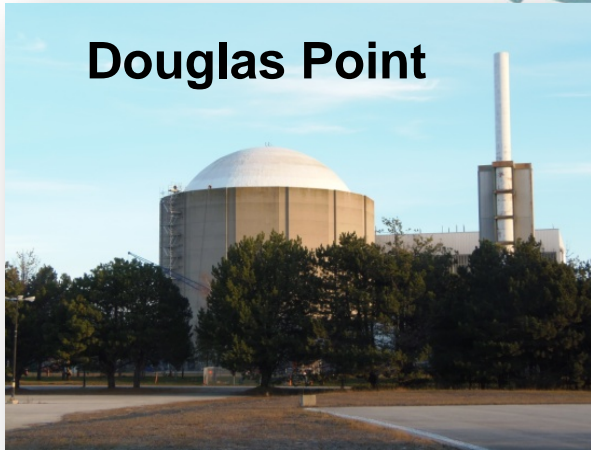
- Joan Miller, Vice President, Decommissioning and Waste Management
- **Waste Management Symposium, Phoenix, AZ**
- **March 19th 2015**



Whiteshell Laboratories



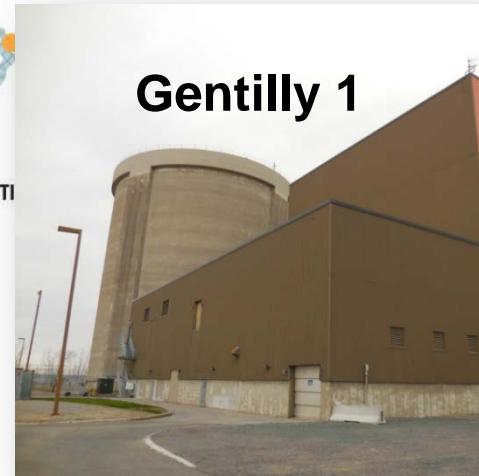
Chalk River Laboratories



Douglas Point



Nuclear Power Demonstration



Gentilly 1





U.S./Canada Partnering – The Benefits of a Statement of Intent (SOI)

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Waste Management Symposium
Thursday March 19 2015

Session 111 – US/Canada Bilateral Agreement

- **Focal point: How the U.S. DOE and the Canadian Nuclear Laboratories (CNL) cleanup programs leverage one another's activities through a Government-to-Government Statement of Intent (SOI) to ensure maximum return on investment for their respective taxpayers**



Canadian Nuclear
Laboratories

Laboratoires Nucléaires
Canadiens

What is the “Statement of Intent (SOI)”?

- An agreement between U.S. DOE and CNL to share information and lessons learned in the fields of used fuel, radioactive waste management, decommissioning and environmental remediation.
- Signed by U.S. DOE Office of Environmental Management and CNL in February 2013
- The SOI is still in its infancy
- Ongoing activities range from lessons learned discussions on D&D approaches and contracting strategies to onsite technology demonstrations



Why do we have the “Statement of Intent”?

- **Similar scope and technical issues**
 - **D&D, groundwater issues, underground tanks, sludge management and disposition**
- **Constrained budgets are driving the need for collaboration, cooperation and a renewed focus on ‘lessons learned’ and information sharing**
- **Many of the contractors doing work on the DOE Complex are the same as those doing (or bidding for) work in Canada**
 - **AECOM (URS), EnergySolutions, B&W, Bechtel**

Areas of Collaboration (2013 - 2015)

- Videoconference in late 2013 identified a number of areas of collaboration
 - Information exchange requests
 - Lessons learned exchanges
 - Technology demonstration and trials

Areas of Collaboration (2013-2015)

- Information Exchange
 - Tank closure criteria
 - TRL guidance
 - Free release criteria and protocols for equipment used in D&D operations
 - Use of cone penetrometer
 - Innovative Technology Summary Reports
 - Trench remediation
 - In situ decommissioning (entombment)
 - Grout formulations
 - Stakeholder management

Areas of Collaboration (2013 – 2015)

- Lessons Learned Exchanges
 - Chlorohydrocarbon plume management
 - Site closure at Rocky Flats, Fernald and Mound
 - D&D processes and protocols
 - Contracting/Contractor management
 - LDRD program implementation and management
 - Hot cell refurbishment
 - Startup and Commissioning
- Technology Trials and Demonstrations
 - ASCEM
 - GrayQb
 - Remote systems database

Highlights

- Contracting/LDRD/National Lab Management visit
- ASCEM trials
- Startup and Commissioning Workshop
- CNL D&D team visit to DOE RL/WCH Nov 2014
- Work with Savannah River National Laboratory
 - GrayQb trials
 - Grout formulations for tank closure and In situ decommissioning
 - Approaches to reactor D&D
- Hot cell refurbishment ‘Work for Others’ task

Highlight – Contracts/Lab Management

- CNL is undergoing a major reorganization from a GOGO to a GOCO organization
- Senior level visit made to DOE HQ, Idaho National Laboratory and Argonne National Laboratory in Dec. 2014 to discuss
 - DOE/Contractor interface issues
 - LDRD program development and implementation
 - Transition processes between contractors
 - Budgeting processes
 - Program planning
 - National laboratory management

Highlight - ASCEM

- Dialogue regarding CNL groundwater modeling needs at Chalk River Site
- Webinar determined that ASCEM could benefit CNL by organizing field data from several sources to enable direct comparison of simulated and observed data
- DOE team hosted demonstration via online seminar to 10 CNL staff
- CNL using the tool and feeding data back into the development of expanded capabilities
- EM International proposal submitted for continuing support interaction

Highlight – Startup and Commissioning

- CNL plans to bring Fuel Packaging and Storage facility (FPS) online in 2015 to remediate historical stored fuel
 - >\$100M project
- CNL Commissioning staff participated in workshop with DOE and NDA to address a number of challenges
 - Configuration management
 - Document control
 - Resource planning
 - Turnover plans
- Participating in Working Groups which are continuing to develop ‘best practice’ in this area
- DOE Commissioning Lessons Learned Report to be issued and shared shortly

Highlight – D&D Visit to Richland

- CNL D&D Team visited DOE Richland and Washington Closure Hanford in November 2014
- Toured current D&D projects
 - 618 10-11 burial grounds
 - Building 324
 - VPU remediation
- Discussed all aspects of the D&D process
 - Planning, work instructions, permits, technologies, decontamination approaches, hazard mitigation, characterization strategies, PPE use, ventilation system use
- Successful visit with CNL reporting that they implemented the recommendation to use off-the-shelf latex paint as a tie down coating within 48 hours of returning to site



Highlight – Work with SRNL

- GrayQb Trials
 - GrayQb generates gamma radiation contour maps showing source locations and relative radiological contamination levels present.
 - Prototype tested at B235-F in Savannah River
 - Cold test trials discussed at CNL in Dec 2014
 - Trials to be conducted in Feb/Mar 2015
- Application of grout to tank closure and ISD
- Support to options for decommissioning of research and prototype reactors

Highlight – Hot Cell Refurbishment

- CNL facing challenges with hot cell upgrade
- PNNL/INL has experience and were contracted through a “Work for Others” agreement to provide technical consulting
- PNNL (3) and INL (1) staff visited CNL for 1 week
- Reviewed all aspects of the project
 - Team roles and responsibilities
 - Work planning and scheduling
 - Safety and licensing
 - Maintenance
 - Commissioning
 - Operations

Summary

- The U.S./Canada SOI is developing well
- Significant information exchange and the sharing of lessons learned has occurred across a broad range of topics
- Technology trials have been successfully completed and continue
- Opportunity exists to continue, add and expand activities