

# PROGRESS IN IMPLEMENTING US SUPPORT TO JAPAN (PART 3 OF 4) – NATIONAL LABORATORY INVOLVEMENT

## Dr. Jeff Griffin

Associate Laboratory Director, Environmental Management  
Savannah River National Laboratory

## Wayne L. Johnson, P.E.

Director, Earth System Sciences Division  
Pacific Northwest National Laboratory

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# Panel Topics to be Addressed

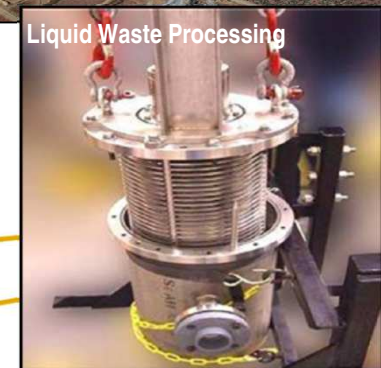
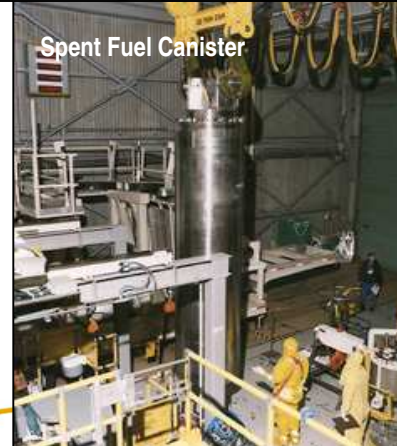
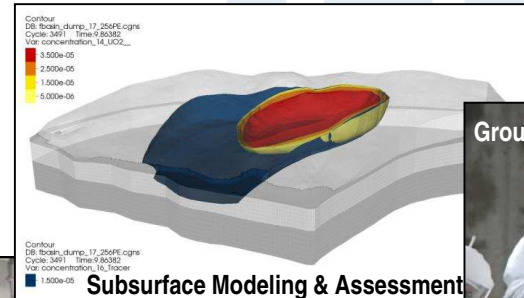
- ▶ **Overview and Context** (Jeff Griffin, SRNL)
- ▶ **Tokyo Electric Power Company Efforts** (Drew Fellingner, SRNL)
- ▶ **Support to the US Embassy in Tokyo – Embassy Science Fellows**
  - **PNNL Perspective** (Paul Bredt, PNNL)
  - **SRNL Perspective** (Jeannette Hyatt, SRNL)
- ▶ **Japan Atomic Energy Agency Support** (Wayne Johnson, PNNL)
- ▶ **Panel Discussions** (Open Questions)



# Applicability of Expertise to the Challenges at Fukushima

► The U.S. Department of Energy National Laboratories have capabilities and expertise in the following applicable fields:

- Decontamination & Decommissioning of Nuclear Facilities and Structures
- Spent & Damaged Fuel Characterization, Handling, and Packaging
- Assessment of the Condition of the Reactor Fuel and Internals
- Liquid & Solid Radioactive Waste Processing
- Soil, Groundwater & Vegetative Remediation and Environmental Management
- Radiological Detection, Measurements & Monitoring
- Remote Operations in Challenging Radiation Environments
- Community Development Strategies to Diversify the Site beyond Nuclear Power and Restoration Missions



# Tokyo Electric Power Company (TEPCO)

- ▶ As operator of damaged Fukushima Daiichi Nuclear Power Station, TEPCO is performing the clean-up of the site.
- ▶ SRNL/TEPCO Work-for-Others agreement through which work performed by SRNL/PNNL integrated team is coordinated
- ▶ Principal product is feasibility study:
  - Addressing 7 TEPCO Items of Interest
  - Defining follow-on scopes of work.
- ▶ SRNL/PNNL and TEPCO technical and management teams have visited Fukushima site and National Laboratories.
- ▶ SRNL/PNNL team has submitted preliminary report and draft feasibility study for discussion to ensure TEPCO's needs are met.
- ▶ Final feasibility study to be delivered to TEPCO in early March along with stand-alone Statements of Work that TEPCO can use to execute contracts



# U.S. Department of State Embassy Science Fellowships in Japan

## ► Background

- **Ministry of Environment (MOE) is Government of Japan's authority for decontaminating the land surrounding Fukushima site so residents and businesses can return.**
- DOE Japan Office Director of U. S. Embassy in Tokyo requested U. S. National Laboratory decontamination experts to serve as Embassy Science Fellows (ESFs) to advise MOE.
- Functions of ESFs are to help MOE execute reclamation of areas within the exclusion zone and to facilitate formal working partnerships between the U.S. and government agencies in Japan.

## ► Embassy Science Fellows

- **Scientist Dr. Bob Sindelar from SRNL and Engineer Mr. Mark Triplett from PNNL are first ESFs contributing to Japan recovery.**
- Two-month postings February-March 2013
- Interface with numerous organizations and individuals, including government agencies, private companies, the media, the public



SRNL Scientist  
Bob Sindelar



PNNL Engineer  
Mark Triplett

# Japan Atomic Energy Agency (JAEA)

## ► Background

- JAEA is the public institute dedicated to basic and applied nuclear energy research and dissemination of nuclear information.
- Immediately after the accident, JAEA contributed to assessment and restoration.
- Under the direction of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and the Cabinet Office, JAEA is conducting radiation monitoring of the environment, radiation dosimetry for the local people, decontamination of school yards, and verification of decontamination at designated areas of municipalities.

## ► National Laboratory Engagement

- National Laboratory work directly with JAEA is underway supporting environmental assessment and waste management plans in the impacted areas surrounding the site.
- JAEA visited SRNL, ORNL, and PNNL in January 2013 to investigate additional opportunities to collaborate with U. S. National Laboratories on the earthquake and tsunami recovery as well as other possible endeavors.



# In partnership with other National Laboratories, SRNL and PNNL offer assistance to Japan.



For further information, please contact:

## **Dr. Jeffrey C. Griffin**

Associate Laboratory Director, Environmental  
Stewardship  
Savannah River National Laboratory  
Building 773-A  
Aiken, SC 29808 USA  
Tel: 803-725-1343  
Cell: 803-645-9695  
Fax: 803-725-4704  
[jeff.griffin@srnl.doe.gov](mailto:jeff.griffin@srnl.doe.gov)



For further information, please contact:

## **Wayne L. Johnson, P.E.**

Director, Earth Systems Science Division  
Pacific Northwest National Laboratory  
902 Battelle Boulevard  
P.O. Box 999, MSIN K6-84  
Richland, WA 99352 USA  
Tel: 509-372-4791  
Cell: 509-521-6926  
Fax: 509-371-7150  
[wayne.johnson@pnnl.gov](mailto:wayne.johnson@pnnl.gov)



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