D&D Subgroup Highlights
December 3, 1996

Introduction

Wayne Green of Fluor Daniel Hanford (FDH) and Gerry McCormick of B&W Hanford Co. (BWHC) were introduced as new participants in the D&D Subgroup. Wayne is a member of the PHMC team identifying and screening technologies for Hanford cleanup and he reports to Tom Anderson (FDH).

Technology Needs Prioritization

Jackie Vander Veen and Sue Garrett described how the new technology needs list to be prioritized today was developed. There were a number of characterization, decontamination, cutting, and roofing needs that were combined into each category. The details of each of the previous needs will be contained in the write-ups in the sections entitled need description, functional performance requirements, and problem description. John Lafemina (PNNL) was introduced as the one who noted science needs during the discussion of technology needs. The science needs were reviewed at the end of the meeting. John stated that in the future, Sue Garrett would be the science representative on the D&D Subgroup.

Jackie Vander Veen and Sue Garrett distributed information on the fifteen technology needs identified to date. Discussions of each of these needs took place and the following changes to the needs list occurred:

- The reactor core stabilization need was combined with the fixatives need as a reactor core fixative is what is being examined;
- the Cs/Sr capsule needs were removed from the list as the needs were not seen as "technology" needs but engineering ones; and
- a new need entitled, Determining Structural Integrity of Liners/Tanks, was added to the list and prioritized.

The following are the technology needs that were prioritized by the subgroup at this meeting:

1. Characterization Needs
2. Decontamination Needs
3. Cutting Needs
4. Fixatives Including Reactor Core Stabilization
5. Roofing Needs
6. Physical Stress Monitoring
7. Radiation Hardened Automated Deployment System
8. Tank Heel Remediation
9. Asbestos Remediation Needs
10. N-Fuel Storage Basin Visibility
11. Liquid Metal Reactor Needs
12. Bio-Control

13. Recycling of Metal/Concrete
14. Determining Structural Integrity of Liners/Tanks

The attached table shows the technology needs scores agreed to by the subgroup. The subgroup decided that needs #1 to #5 would be prioritized high. Needs #6 to #10 would be medium priority needs and needs #11 to #14 would be low needs. Need #6, Physical Stress Monitoring, though it scored high was moved to the medium needs list by the subgroup because it was viewed as less important than the other high needs. Jackie Vander Veen and Sue Garrett will complete the needs information packets and get copies to the subgroup members by COB December 6. All subgroup members need to quickly review the needs information and get comments back to Jackie and Sue so that the STCG management council can review them also.

There were five science needs that John Lafemina identified during the meeting. The subgroup agreed that the following were indeed D&D science needs:

- In-situ, remotely-deployable, NDE/NDA chemical and radioactive mapping methods (including quantification of contaminant concentration and fast front-end electronics for faster count times);
- understanding of contaminant binding to contaminated surfaces (including the development of photo-assisted decontamination processes);
- understand chemical and physical binding of fixatives to contaminated surfaces and deployment of fixatives to complex geometries (including matching fixatives with decontaminant processes to minimize secondary waste);
- colloidal chemistry of N-basin sludges; and
- chemistry of molten NaK heel passivation.

The next D&D Subgroup meeting is scheduled for January 7, 1997 in the EESB, Stampede Room.

Meeting Attendees

Gary Ballew (ETP)
Greg Eidam (BHI)
Sue Garrett (PNNL)
Rick Gonzalez (DOE-RL)
Wayne Green (FDH)
Bob Julian (Ecology)
John Lafemina (PNNL)
Gerry McCormick (BWHC)
Keith Pauley (PNNL)
Loni Peurrung (PNNL)
Shannon Saget (DOE-RL)
Jackie Vander Veen (FDH)
Steve Weakley (PNNL)
Jerry White (DCR/TCCP)