

IMPORTANT and USEFUL REPORTS

9/9/2015

RI Smith

Two large reports were recently released that can and should have significant impacts on the cleanup of DOE's Defense Production sites. The first report (A Review of the Use of Risk-Informed Management in the Cleanup Program for Former Defense Nuclear Sites), prepared at the request of the Congressional Appropriations Committees by a group of recognized experts assembled by DOE (The Omnibus Risk Review Committee), examines the use (or lack thereof) of Risk-Informed Management in the Cleanup Program for Former Defense Nuclear Sites. One of the major problems is the lack of coherent, rational, science-based definitions for categorizing of Defense Wastes in terms of their potential for causing damage to human health and environment if not properly treated and disposed. Defense Wastes are either High-Level or Low-Level waste, with no scientific radiological basis for either category. This report strongly urges Congress to modify these definitions to be science-based, which would provide the bases for evaluations of radiological risk arising from the various grouping of Defense Waste in a systematic, structured manner across all former Defense Nuclear Sites.

The second report (HANFORD SITE-WIDE RISK REVIEW PROJECT INTERIM PROGRESS REPORT REVISION 0), prepared by CRESP at the request of DOE, develops and exercises a methodology for evaluating various waste treatment paths and processes for remediating contaminated waste sites (full system studies on waste remediation. Basically, performance assessments would be performed using specific site waste inventories and applying candidate treatment paths and processes. The relative risks associated with the various remedies help inform the decision-makers when making cleanup decisions where multiple treatment paths are viable. This report also contains numerous graphical displays of waste inventories at various locations on the Hanford Site that are quite informative.

Combining the principal thrusts of both reports (science-based definitions and site/waste specific performance assessments) would facilitate DOE in (1) arriving at better and consistent treatment disposition solutions across the DOE complex of former Defense Nuclear Sites, (2) in earlier completion and commissioning of the WTP, and (3) shortening the required operational lifetime of WTP to achieve the ORP mission. The use of full system studies to select appropriate remediation approaches would be a new approach for DOE, who in the past has only considered minor variations on their preselected (~ 1990's) pathways.

I strongly urge all HAB members to download these reports and read them to get the full potential impacts of using the proposed definition changes and the full system studies approach for improving our present situation (no operable waste treatment and immobilization capacity likely to become available for another seven to ten years). The HAB should take all steps possible to encourage the Congressional Committees to take the appropriate actions to create science-based definitions for the High-Level and the Low-Level Defense Wastes.

CRESP Website: [http://www.cresp.org/hanford/#interim report](http://www.cresp.org/hanford/#interim%20report)

Omnibus report link: ask Sharon Braswell.