

RAS 4619

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
ATOMIC SAFETY AND LICENSING BOARD

DOCKETED  
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July 3, 2002 (4:23PM)

Before Administrative Judges:  
Thomas S. Moore, Chairman  
Charles N. Kelber  
Peter S. Lam

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

In the Matter of )

June 27, 2002

DUKE COGEMA STONE & WEBSTER )

Docket No. 070-03098-ML

(Savannah River Mixed Oxide Fuel  
Fabrication Facility) )

ASLBP No. 01-790-01-ML

DOCUMENTS TO BE RELIED UPON  
BY DUKE COGEMA STONE & WEBSTER'S  
EXPERT WITNESSES

In accordance with the Commission Order, CLI-01-13 (June 14, 2001) and the Atomic Safety and Licensing Board Order, *slip op* (April 30, 2002), Duke Cogema Stone & Webster ("DCS") hereby provides the list of documents its expert witnesses presently plan to rely upon at the hearing for the Mixed Oxide Fuel Fabrication Facility ("MOX Facility"). DCS will make available for inspection and copying the documents from this list that are not already in the Hearing File or otherwise publicly available.

Contention 1 "Lack of Consideration of Safeguards in Facility Design"

1. NUREG - 1280, Rev 1, Standard Format and Content Acceptance Criteria for the Material Control and Accounting (MC&A) Reform Amendment.

Contention 2 "Lack of Physical Protection in Facility Design"

1. Regulatory Guide 5.44, Perimeter Intrusion System.

Template = SECY-055

SECY-02

2. Regulatory Guide 5.52, Rev. 3, 12/94, Standard Format and Content of a License Physical Protection Plan for Strategic Special Nuclear Material at Fixed Sites.
3. NUREG/CR-0509, Emergency Power Supplies for Physical Security Systems.
4. NUREG/CR-6667, Standard Review Plan for Safeguards Contingency Response Plans.
5. NUREG/CR-6668, Standard Review Plan for Training and Qualification Plans.
6. NUREG/CR-0509, Emergency Power Supplies for Physical Security Systems.
7. NUREG-1718, Section 13.1, 8/00, Standard Review Plan - Physical Protection.
8. IEEE 692, 1997, Standard Criteria for Security Systems for Nuclear Power Generating Stations.

#### Contention 3 "Inadequate Seismic Design"

1. Amick, D. and P. Talwani (1986). *Earthquake Recurrence Rates and Probability Estimates for the Occurrence of Significant Seismic Activity in the Charleston Area: The Next 100 Years*, Third U.S. National Conference on Earthquake Engineering, Vol 1, pp. 55-64.
2. Bernreuter, D.L., 1997. Letter report from Don Bernreuter to Jeff Kimball. Lawrence Livermore National Laboratory, Fission Energy and Systems Safety Program, May 15, 1997, NTFS97-123.
3. Cornell, C.A., 1997, *Probabilistic Hazard Analysis for Non-Linear Soil Sites – Preliminary Draft (1/14/97)*, Department of Civil and Environmental Engineering, Stanford University, Stanford, CA.
4. Cumbest, R.J., D.E. Stephenson, D.E. Wyatt and M. Maryak, 1998, *Basement Surface Faulting and Topography for Savannah River Site and Vicinity*. WSRC TR-98-00346, Rev. 0, Westinghouse Savannah River Company, Aiken, SC.
5. Cumbest, R. J., D.E. Wyatt, D.E. Stephenson and M. Maryak, 2000, *Comparison of Cenozoic Faulting at the Savannah River Site to Fault Characteristics of the Atlantic Coast Fault Province: Implications for Fault Capability*, WSRC-TR-2000-00310, Rev. 0.
6. Domoracki, W., 1995, *A Geophysical Investigation of Geologic Structure and Regional Tectonic Setting at the Savannah River Site, South Carolina*. Ph.D. Dissertation, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

7. Duke Cogema Stone & Webster, 2000. *MOX Fuel Fabrication Facility Site Geotechnical Report*, DCS01-WRS-DCS-NTE-G-00005-A, December.
8. DCS, 2001, *MOX Fuel Fabrication Facility Site Geotechnical Report*, DCS01-WRS-DCS-NTE-G-00005-C, August.
9. Frankel, A., 1999. Letter report of calculation results to R.C. Lee, March 1, 1999.
10. Geomatrix Consultants, Inc., 1991. *Ground Motion Following Selection of SRS Design Basis Earthquake and Associated Deterministic Approach*, WSRC Subcontract AA2021S, WSRC, Aiken, SC (WSRC-TR-91-00124, Rev 1).
11. Memorandum from Brent Gutierrez to Lawrence Salomone and Fred Loeff, Re: "Revised Envelope of the Site Specific PC-3 Surface Ground Motion," September 9, 1999.
12. Housner, G.W., 1968. *Earthquake Criteria for the Savannah River Plant*, DPE-2383, E.I. du Pont de Nemours and Company, Savannah River Plant, Aiken, SC.
13. Lee, R.C., 1994. *Update of H-Area Seismic Design Basis*, WSRC-TR-94-0528, Rev. 1, WSRC, Aiken, SC.
14. Lee, R.C., 1994a. *H-Area Seismology Summary and General Overview*, WSRC-TR-94-0529, Rev. 1, WSRC, Aiken, SC.
15. Madabhushi, S. and P. Talwani (1993). *Fault Plane Solutions and Relocations of Recent earthquakes in Middleton Place Summerville Seismic Zone Near Charleston, South Carolina*, Bulletin of the Seismological Society of America, Vol. 83, No. 5, pp. 1442-1466.
16. Moos, D. and Zoback, M.D. (1992) *In Situ Stress Measurements in the NPR Hole, Savannah River Site, South Carolina: Final Report to Westinghouse Savannah River Co., Vol. 1, Results and Interpretations*. Subcontract AA00925P, Science Applications International Corporation, Augusta, GA.
17. Moos, D. and Zoback, M.D. (1993) *Near Surface "Thin Skin" Reverse Faulting Stresses in the Southeastern United States*. International Journal of Rock Mechanics and Mining Sciences and Geomechanical Abstracts Vol. 30, No. 7, pp. 965-971.
18. Savy, J.B., 1996. Fission Energy and Systems Safety Program, May 28, 1996, SANT96-147JBS, letter from J. B. Savy, Deputy Associate Program Leader Natural Phenomena Hazards to Jeff Kimball, DOE.
19. Stieve, A., C. Coruh and J. Costain, October 1994, *Confirmatory Drilling Project Final Report (U)* WSRC-RP-94-0136, Rev. 0, Westinghouse Savannah River Company, Aiken, SC.

20. Stokoe, K.H., et al., 1995. *Correlation Study of Nonlinear Dynamic Soil Properties: Savannah River Site, Aiken, South Carolina*, Rev. 0; File No. Savannah River Site-RF-CDP-95, University of Texas at Austin, Department Civil Engineering, September 13.
21. Toro, G.R., 1997. *Probabilistic of Site Velocity Profiles at the Savannah River Site, Aiken, South Carolina*, Final Report to WSRC, April 4, 1997.
22. Westinghouse Savannah River Company (WSRC), 1996. *Investigations of Nonlinear Dynamic Soil Properties at the Savannah River Site*, Report No. WRSC-TR-96 0062, Rev 0, March.
23. WSRC, 1997. *SRS Seismic Response Analysis and Design Basis Guidelines*, WSRC-TR-97-0085, Rev. 0.
24. WSRC, 1998. *Use of the Cone Penetration Test for Geotechnical Investigations at the Savannah River Site, (K-ESR-F-0005)*, May
25. WSRC, 1998. *Soil Surface Seismic Hazard and Design Basis Guidelines for Performance Category 1 & 2 SRS Facilities*, by R.C. Lee, WSRC-TR-98-00263, Rev. 0.
26. WSRC, 1999. *Computation of USGS Soil UHS and Comparison to NEHRP and PCI Seismic Response Spectra for the SRS*, by R.C. Lee, WSRC-TR-99-00271, Rev. 0.
27. WSRC, 1999. *Significance of Soft Zone Sediments at the Savannah River Site-Historical Review of Significant Investigations and Current Understanding of Soft Zone Origin, Extent and Stability*, Report No. WRSC-TR-99-4083, Rev 0, September.
28. WSRC, 1999a. *Engineering Standards Manual, Structural Design Criteria Standard No 01060*, (Manual WSRC-TM-95-1) Westinghouse Savannah River Company, Aiken, SC.
29. WSRC, 1999b. *F-Area Northeast Expansion Report*, WSRC Site Geotechnical Services, Report K-TRT-F-00001, Revision 0, June.
30. WSRC, 2000a. *2000 RCRA Part B Permit Renewal Application (U), Volume VII, Savannah River Site Mixed Waste Facility (MWMF) Postclosure*, WSRC-IM-98-30, Westinghouse Savannah River Company, Savannah River Site, Aiken, SC.
31. WSRC, 2000b. *Natural Phenomena Hazards (NPH) Design Criteria and Other Characterization Information for the Mixed Oxide (MOX) Fuel Fabrication Facility at Savannah River Site (U)*, WSRC-TR-2000-00454, Rev. 0, Westinghouse Savannah River Company, Savannah River Site, Aiken, SC, November.

32. WSRC, 2001. *Applicability of SRS Site-Wide Spectra to the MFFF Site*, Calculation Number K-CLC-F-00049, Rev. 0.
33. WSRC, 2001a. *Development of MFFF-Specific Vertical-to-Horizontal Seismic Spectral Ratios*. WSRC-TR-2001-00342, Rev 0.
34. Talwani, P. and N. Sharma, 1999. *Reevaluation of the Magnitudes of Three Destructive Aftershocks of the 1886 Charleston Earthquake*, Seismological Research Letters, Vol 70, No. 3, pp. 360-367.
35. Wyatt, D. E. and Harris, M. K., eds., 2000. *Carolina Geological Society Field Trip Guidebook*, WSRC-MS-2000-00606.

#### Contention 5 "Incorrect Designation of Controlled Area"

1. Savannah River Site Emergency Plan and Implementing Procedures.

#### Contention 6 "Inadequate Safety Analysis"

1. DCS 2001, *Input Values for Radioactive Release Calculations for the MFFF*, DCS01-ZJJ-DS-ANS-H-38309.
2. DCS 2001, *Dose Consequences for Potential Radioactive Releases from Hazard Events*, DCS01-RRJ-DS-ANS-38310.
3. DCS 2001, *Supplemental for Dose Consequences for Potential Radioactive Releases from Hazard Events*, DCS01-RRJ-DS-ANS-38310.
4. DCS 2001, *Environmental Consequences for Potential Radioactive Releases from Hazard Events*, DCS01-RRJ-DS-ANS-H-38332.
5. DCS 2001, *Chemical Consequences for Potential Chemical Hazard Events*, DCS01-RRJ-DS-CAL-H-35604.
6. DCS 2001, *MFFF Support System Dependencies*, DCS01-RRJ-DS-CAL-H-38312.
7. DCS 2001, *Preliminary Hazard Analysis*, DCS01-ZJJ DS-ANS-H-38301.
8. DCS 2001, *Preliminary Accident Analysis*, DCS01-ZJJ-CG-ANS-H-38317.
9. DCS 2001, *Distances from MFFF to Surrounding Buildings and SRS Boundaries*, DCS01-RRJ-DS-CAL-H-38302.
10. DCS 2001, *Dispersion Factors (Chi/Q) Values for MFFF Accident Analysis*, DCS01-RRJ-DS-CAL-H-38308.

11. DCS 2001, *Fire Hazards Analysis*, DCS01-ASI-DS-ANS-R-10400.
12. DCS 2001, *ISA MOX Accident Analysis Facility Worker Dose*, DCS01-RRJ-DS-CAL-H-38334.

Contention 9 "Inadequate Cost Comparison"

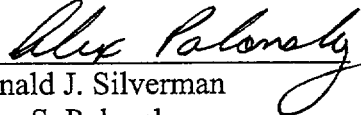
1. NNSA, 2002. *Report to Congress: Disposition of Surplus Defense Plutonium at Savannah River Site*, February 15, 2002.

Contention 11 "ER Fails to Address the Waste Stream From Aqueous Polishing"

1. Brabazon, Ed (DCS) Letter to James V. Johnson (NNSA), June 7, 2002.
2. Brossard, M-P personal communication to M.L. Birch, ER Solid Waste Balance, April 15, 2002.
3. Calculation of accident and normal operations doses from waste processing building.
4. DCS, 2001. *MOX Fuel Fabrication Facility Trade Study on Expanding Aqueous Polishing Plant Capabilities*. November 9, 2001. Preliminary Predecisional Draft Material. DCS Proprietary.
5. DCS, 2001. Basis of Design for Waste Management, DCS01-AAJ-DS-DOB-H-40117-C.
6. DCS, 2002. *Preliminary Draft MFFF Environmental Report, Chapter 3, Process Design Group Mark-up*, April 11, 2002.
7. DOE, 1995. *Savannah River Site Waste Management Final Environmental Impact Statement*, DOE/EIS-0217, Savannah River Operations Office, Aiken, SC, July.
8. DOE, 1997. *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste*, DOE/EIS-0200-F, Office of Environmental Management, Washington, DC, May.
9. DOE, 1997e. *Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement*, DOE/EIS-0026-S-2, Carlsbad Area Office, Carlsbad, NM, September.
10. Johnson, J.V (NNSA). 2002, Letter to Mr. E. Brabazon (DCS) February 11, 2002.

11. WSRC, 2002. *MFFF ENVIRONMENTAL REPORT UPDATE: Bounding Information for Waste Processing Building*. Preliminary Predecisional Information, March 28, 2002.

Dated: June 27, 2002

  
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	)	

**CERTIFICATE OF SERVICE**

I hereby certify that copies of "Documents To Be Relied Upon By Duke Cogema Stone & Webster's Expert Witnesses" were served this day upon the persons listed below, by both e-mail and United States Postal Service, first class mail.

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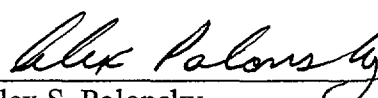
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