

Justin Leous - Vogtle Environmental Site Audit Follow Up

From: Justin Leous
To: Dale Lane Fulton; tcmoorer@southernco.com
Date: 10/23/2007 9:41 AM
Subject: Vogtle Environmental Site Audit Follow Up
CC: bobbie.hurley@earthtech.com; D. Ashley; Louise Lund; Rani Franovich

Good morning, Dale and Tom.

Per the Site Audit Exit Briefing, please find attached our post-audit information requests (in 3 documents).

As we discussed, I trust about a week's turn-around should be sufficient to gather this information on your end and send it over- but please keep me posted so I can advise NRC staff accordingly.
Should you have any questions regarding the attached requests, please let me know.

Regards,

JP Leous
US NRC
301.415.2864

Mail Envelope Properties (471DF9F6.877 : 7 : 9160)

Subject: Vogtle Environmental Site Audit Follow Up
Creation Date 10/23/2007 9:41:10 AM
From: Justin Leous

Created By: JPL1@nrc.gov

Recipients	Action	Date & Time
earthtech.com AM Bobbie.Hurley CC (bobbie.hurley@earthtech.com)	Transferred	10/23/2007 9:41:33
nrc.gov OWGWPO01.HQGWDO01 AM DJA1 CC (D. Ashley) PM	Delivered Opened	10/23/2007 9:41:18 10/23/2007 12:23:16
nrc.gov OWGWPO02.HQGWDO01 AM RLF2 CC (Rani Franovich) AM	Delivered Opened	10/23/2007 9:41:18 10/23/2007 10:36:46
nrc.gov TWGWPO01.HQGWDO01 AM LXL CC (Louise Lund) PM	Delivered Opened	10/23/2007 9:41:10 10/23/2007 2:11:04
southernco.com AM DLFULTON (Dale Lane Fulton) TCMOORER (tcmoorer@southernco.com)	Transferred	10/23/2007 9:41:33

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		southernco.com

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TEXT.htm	846	
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After Audit Info Request 1.doc	89600	10/22/2007 1:27:18 PM
After Audit Info Request 2.doc	68096	10/23/2007 9:35:20 AM

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HYDROGEOLOGY REVIEW FOR VOGTLE AUDIT

1. The non-radioactive resins and sludge are disposed of offsite in a permitted industrial landfill, with an average volume of _____ pounds per year. Mike Odum stated that six roll-off containers are sent for permitted industrial landfill last year. **Please provide the estimate pounds of waste from the waste manifest of non-radiological resins and sludge disposal.**

2. The hazardous waste consists of listed waste streams, and in 2006, comprised a total of _____ pounds of hazardous waste. Mike Odum stated in 2006, two 55 gallon drums (300 lbs) of haz-waste was sent for disposal and in 2007, two 55 gallon drums of haz-waste was sent for disposal. **Please provide a summary of the types of waste and weight in pounds from the waste manifests.**

3. The VEGP Waste Minimization Plan includes procedures for evaluating and reducing the generation of the following types of wastes. Mike Odum stated during the audit the general waste types include: Oily Rags and Resins; Light Bulbs (universal wastes); Batteries & Capacitors (universal waste); Asbestos; and Used Oils. **Please verify the list and provide a copy of the Waste Minimization Plan.**

4. Earth Tech currently has the pre-operational estimates of water withdrawal from the Savannah River based on the maximum withdrawal capacity of the pumps in the intake structure (89 cfs, with an average estimated consumptive use of 33.4 cfs per unit, or 66.8 cfs for the entire facility. Tom Moore stated the monthly withdrawals are located in the information docket and Mike Odum referenced an average withdrawal of 64 mgd from Savannah River intake. He also mentioned that Don Goodwin has the run-time for pumps and submits them in monthly reports to state. **Please provide monthly withdrawals for the pumps for the last 5 years.**

5. Tom Moore was gracious enough to explain the difference between the CWS and NSCW cooling systems numerous times to NRC and Earth Tech. In addition, Figure 3.3 of the Environmental Study, March 1974 presents a diagram. **For purposes of clarity please revise the following descriptions:**

The Cooling Water System (CWS) which includes the two 500 ft cooling tower receives water from the Savannah River and circulates the water through the turbine plant. Blow down water from the cooling towers is discharged back into the Savannah River. The (NSCW) system is design for Safety Reactor Cooling and as an Ultimate Heat Sink. The NSCW utilizes groundwater from four wells (MV-1 and MV-2 and backup wells TW-1 and TW-2) for operation. The system has four 80 ft deep cooling sumps with fans that receive the NSCW water and discharge the blow down to the Savannah River.

6. Please provide the *2006 VEGP Surface Water Quality Monitoring Program Report*.

7. Please provide the *NPDES Discharge Monitoring Reports* for the last 5 years.

8. Tom Moore stated that there is no minimum level established to curtail surface water withdrawal from the Savannah River in the case of a drought. Instead, a Drought Plan (which is part of the Surface Water Withdrawal Permit) and Drought Task Force has been established with the US Army Corps of Engineers to address river flow and withdrawals. There are four Action Levels that are based on the release from Thurmond Dam. At a pool of 312 ft msl in Thurmond Dam, the minimum flow is 3800 cfs. With the current Georgia drought the measuring station in Waynesboro has not dropped below 4000 cfs. **Please verify the above summary and add information on the four response levels, especially Level 3 and 4 when the flow is below 3800 cfs.**

9. Please provide a copy of the Surface Water Withdrawal Permit and the Groundwater Withdrawal Permit.

10. Gary Gunter with Tetra Tech stated that information from the UFSAR was used to develop a spreadsheet model for groundwater drawdown for the new reactor licensing. Both "confined nonleaky aquifer" and "confined leaky aquifer" drawdowns were modeled. Please provide the hydrogeologic data and calculation package on the groundwater that VEGP used in the ER for the Proposed Reactor Units 3 and 4. **Earth Tech would like to be able to re-create the model's output.**

Document #	Reference	Reports/Data Requested for Review	Comments	Location
A1	NSA 2006b	Addendum Report: Intensive Archaeological Survey of the Proposed Expansion Areas at the Vogtle Electric Generating Plant, Burke County, Georgia. New South Associates, Stone Mountain, Georgia.		
A2	NSA 2007	Addendum Report: Phase 1 Intensive Archaeological Survey of the Proposed Expansion Areas at the Vogtle Electric Generating Plant, Burke County, Georgia. New South Associates, Stone Mountain, Georgia.		
A3	SNOC	Actions for Potential Groundwater Contamination Events, 1980s - 2007	Vogtle Units 1 & 2 10 CFR 50.75 cg Leak/Spill Decommissioning Record	Blue folder available at audit.
A4	SNOC April 4, 2007	Letter from J.M. Godfrey to NRC Document Control Desk, 2006 Annual Occupational Radiation Exposure Report (for Hatch, Farley, and Vogtle)		Cover letter in blue folder provided at audit. Need copies of contents of blue folder and copy of report itself.
A5	SNOC April 30, 2007	Intracompany correspondence, VEGP - Units 1&2, Conceptual Design for a Low Level Radwaste Pad at Plant Vogtle		Blue folder available at audit.
A6	SNOC April 2007	Plant Alvin W. Vogtle Nuclear Generating Plant Groundwater Monitoring Plan for Radionuclides		Blue folder available at audit.
A7	SNOC January 2007	Offsite Dose Calculation Manual for Southern Nuclear Operating Company Vogtle Electric Generating Plant, Version 23.		Blue folder available at audit.
A8	SNOC	Copies of Radiological Environmental Monitoring Reports for last 5 years		
A9	SNOC	Copies of Non-Radiological Environmental Monitoring Reports for last 5 years		
A10	SNOC	Copies of NPDES self-monitoring reports for last 5 years		
A11	Southeastern Natural Sciences Academy	Draft Savannah River Water Quality Study	Gene Eidson, 7/1/2007	

Document #	Reference	Reports/Data Requested for Review	Comments	Location
A12		Current water withdrawal rates from SRS		
A13	SNOC	VEGP Waste Minimization Plan		
A14	SNOC	Groundwater Monitoring data from first round testing of NEI groundwater initiative		
A15	SNOC	Information on Safe Harbor Program		
A16	SNOC	List of water additives and application rates		
A17	SNOC	List of herbicides used on site and on transmission lines		
A18	SNOC	Information on WINGS		
A19	SNOC	Current version of Land Management Plan		
A20	SNOC	Bathymetric map and cross-sections of Savannah River		
ER1	Collins, et al. 2000	Habitat Utilization and Biological Characteristics of Adult Atlantic Sturgeon in Two South Carolina Rivers, <i>Transactions of the American Fisheries Society</i> , 129:982-988, 2000		Reference Book 1, Chapter 2
ER2	Collins and Smith 1993	Characteristics of the Adult Segment of the Savannah River Population of Shortnose Sturgeon, 1993 Proc. Annu. Conf. SEAFWA		Reference Book 1, Chapter 2
ER3	GDNR 2004	Georgia Department of Natural Resources. Authorization to Discharge under the National Pollutant Discharge Elimination System. Permit No. GA0026786. Environmental Protection Division, Atlanta. May 21, 2004.		Reference Book 4, Chapter 3
ER4	SNC 2000a - 2004b, 2005b	Groundwater Use Reports		Reference Book 4, Chapter 3
ER6	SNOC April 2007	Vogtle Early Site Permit Application, Part 3, Environmental Report, Revision 2	May be proprietary and confidential.	Reference Book 5, Chapter 4
ER7	USACE May 2006	Draft Environmental Assessment Finding of No Significant Impact, Drought Contingency Plan Update, Savannah River Basin		Reference Book 5, Chapter 4
ER8	SNC 2005	Calculation Package Savannah River Basin	Hydrogeology Aquifer Test Data	Reference Book 3
ER9	USACE July 1999	Comprehensive Reconnaissance Study		Reference Book 3

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ER10	SNOC	Permits and Caculation Packages	Entire notebook contents	Reference Book 9
ER11	USEPA January 16, 2005	Safe Drinking Water Information System, List of Water Systems in SDWIS for the state of Georgia in Columbia County, http://oaspub.epa.gov/enviro , Accessed on February 21, 2005		Reference Book 2
ER12	USGS undated	Stratigraphy and Depositional Environments of Sediments from Five Cores from Screven and Burke Counties, Georgia. US Geological Survey Professional Paper 1603-A		Reference Book 2
ER13	Huddlestun and Summerour 1996	The Lithostratigraphic Freamework of the Uppermost Creataceous and Lower Tertiary of Eastern Burke County Georgia		Reference Book 2
ER14	GDOT 2005	Office of Transportation Data 2005 Annual Average Daily Traffic Report		Reference Book 2

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1	Arnett 2001	Arnett, M. 2001. 2000 Savannah River Biological Surveys for Westinghouse Savannah River Company. Prepared for WSRC by Patrick Center for Environmental Research, Philadelphia Academy of Natural Sciences, Philadelphia, PA. December 2001.		Reference Book 1, Chapter 2
2	Bailey et al. 2004	Bailey, M. M., J. I. Isley, and W. C. Bridges. 2004. Movement and population size of American shad near a low-head lock and dam. Transactions of the American Fisheries Society 133: 300-308.		Reference Book 1, Chapter 2
3	Bennett and McFarlane 1983	Bennett, D.H. and R. W. McFarlane. 1983. The Fishes of the Savannah River Plant: National Environmental Research Park. Prepared by Savannah River Ecology Laboratory for the U.S. Department of Energy.		Reference Book 1, Chapter 2
4	Burke County Tax Commission 2006	"Tax Digest – Real and Personal Property," facsimile transmission from Cynthia McManus, Burke County Tax Commissioner, to N. Hill, TTNUS, January 5, 2006.		Reference Book 1, Chapter 2
5	DOE 1987	U.S. Department of Energy. 1987. Impingement and Entrainment at the River Water Intakes of the Savannah River Plant. Savannah River Operations Office, Aiken, SC 1987.		Reference Book 2
6	DuPont 1987	E. I. du Pont de Nemours & Co. 1987. Comprehensive Cooling Water Study, Volume V: Aquatic Ecology. DP-1739-5. Savannah River Laboratory, Aiken, SC.	Also need Volume 1. Could not locate in ER Reference Books.	

Document #	Reference	Reports/Data Requested for Review	Comments	Location
7	Gotvald et al. 2005	Gotvald, A. J., J. T. Fisher, C. E. Oberst, and D. L. Calhoun. Water Resources Data-Georgia, 2004. Volume 1: Continuous water-level, streamflow water-quality, and periodic water-quality data, Water Year 2004, B.E. McCallum and D.V. Alhadeff (compilers): Reston, Va., U.S. Geological Survey Water Data Report GA 04-1. 2005.	Holt requested during audit.	Reference Book 2
8	GDOT 1987a	Georgia Department of Transportation. 1987. General Highway Map of Columbia County, Georgia with Traffic Count Locations, Division of Planning and Programs, Data Planning Services, in cooperation with the U.S. Department of Transportation, Federal Highway Administration, Atlanta, GA, Last Revised 1987.		Reference Book 2
9	GDOT 1987b	Georgia Department of Transportation. 1987. General Highway Map of Burke County, Georgia with Traffic Count Locations, Division of Planning and Programs, Data Planning Services, in cooperation with the U.S. Department of Transportation, Federal Highway Administration, Atlanta, GA, Last Revised 1987.		Reference Book 2
10	GDOT 1992	Georgia Department of Transportation. 1992. General Highway Map of Richmond County, Georgia with Traffic Count Locations, Division of Planning and Programs, Data Planning Services, in cooperation with the U.S. Department of Transportation, Federal Highway Administration, Atlanta, GA, Last Revised 1992.		Reference Book 2
11	GDOT 1999	Georgia Department of Transportation. 1999. City Map of Augusta, Richmond County with Traffic Count Locations, Division of Planning and Programs, Data Planning Services, in cooperation with the U.S. Department of Transportation, Federal Highway Administration, Atlanta, GA, Last Revised 1991.		Reference Book 2

Document #	Reference	Reports/Data Requested for Review	Comments	Location
12	GDOT 2005	Georgia Department of Transportation. 2005. Fax from Ron Battle, Office of Communications, Photocopies of Road Capacity Information from the Highway Capacity Manual 2000, August 22, 2005.		Reference Book 2
13	GPC 1987	Georgia Power Company. 1997. Georgia Power Transmission Bulletin Number 6-10, "Maintenance of Plant Vogtle Transmission Line Corridors," Atlanta, Georgia, May 8, 1997. Accessed 12/16/05.		Reference Book 2
14	GPC 2005	Georgia Power Company. "Electrical Design Parameters of Typical 230 kv and 500 kv Transmission Lines Terminating into Plant Vogtle." Transmitted by email from Dennis Mize (GPC) to Steven Connor (TiNUS) on July 12, 2005.	Could not locate in ER Reference Books.	
15	Lee et al. 1980	Lee, D.S., C. R. Gilbert, C. H. Hocutt, R. E. Jenkins, D.E. McCallister, and J.R. Stauffer. 1980. Atlas of North American Freshwater Fishes. North Carolina State Museum of Natural History, Raleigh, NC.	Duda has.	
16	Marcy et al. 2005	Marcy, B.C., D. E. Fletcher, F.D. Martin, M.H. Paller, and M.J.M. Reichert. 2005. Fishes of the Middle Savannah River Basin with Emphasis on the Savannah River Site. The University of Georgia Press, Athens, Georgia.	To request Interlibrary Loan.	
17	Muska and Matthews 1983	Muska, C. F. and R. A. Matthews. 1983. Biological Assessment for the Shortnose Sturgeon, <i>Acipenser brevirostrum</i> LeSueur 1818, The Savannah River Plant DPST-83-754. E. I du Pont de Nemours and Company, Aiken, S.C. October.		Reference Book 2
18	NOAA and GDNR 2003	National Oceanic and Atmospheric Administration and Georgia Department of Natural Resources. 2003. State of Georgia Coastal Management Program and Program Document. NOAA Office of Ocean and Coastal Resources Management and GDNR Coastal Resources Division. June 2003.	Could not locate in ER Reference Books.	

Document #	Reference	Reports/Data Requested for Review	Comments	Location
19	NRC 1985	U.S. Nuclear Regulatory Commission. 1985. Final Environmental Statement Related to the Operation of Vogtle Electric Generating Plant Units 1 and 2, Docket Nos. 50-424 and 50-425, Georgia Power Company, et al. Washington, D.C. March.	Could not locate in ER Reference Books.	
20	SNC 2003	Southern Nuclear Operating Company. 2003. Wildlife Habitat Council 2003 Recertification Application for Vogtle Electric Generating Plant. July.		Reference Book 3
21	SNC 2005	Southern Nuclear Operating Company. 2005. Vogtle Electric Generating Plant Updated Final Safety Analysis Report, Revision 13. January 31, 2005.	Note - it is assumed that this report contains information sufficient data to evaluate the modeling conclusions that are referenced in the ER. If not, then please try to obtain copies of any modeling reports that are referenced within this report.	Provided on the Vogtle License Renewal cd.
22	Wike et al. 2006	Wike, L.D., F. D. Martin, E. A. Nelson, N.V Halverson, J.J. Mayer, M. H. Paller, R. S. Riley, and M. G. Serrato. 2006. SRS Ecology Environmental Information Document. WSRC-TR-2005-00201. Prepared for the U.S. Dept. of Energy by Westinghouse Savannah River Company, Savannah River Site, Aiken, SC. March.		

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23	NA	Please identify the source and date of off-site land use information shown in Figure 2.8-1 of the ER.	"1:250,000 Scale Quadrangles of Land Use/Land Cover GIRAS Spatial Data in the Conterminous U.S.", Office of Information Resources Management, available at www.epa.gov/ngispgm3/spdata/EPAGIRAS/egiras	
24	NA	Rad Monitoring Wells – 28 new wells have been installed with the completion of the last well near the discharge ditch at the Savannah River. Please provide any monitoring data that may be available for the new wells.		
25	NA	Please provide a description of the following areas and monitoring data that may have been collected in the past 5 years: Rad Waste Storage Area; Non-Rad Waste Storage Area; Hazardous Waste Storage Area. (NPDES Permit Sampling); Low Level Rad Waste Shipping Building; Fire Training Area; Landfills – Construction LF #3; Asbestos and Closed Landfills; Rifle Range; and Sewage Treatment Plant.		