



Tennessee Valley Authority, Post Office Box 2000, Soddy Daisy, Tennessee 37384-2000

December 21, 2011

Mr. Vojin Janjić  
State of Tennessee  
Department of Environment and Conservation  
Division of Water Pollution Control  
Enforcement & Compliance Section  
6<sup>th</sup> Floor, L & C Annex  
401 Church Street  
Nashville, Tennessee 37243-1534

Dear Mr. Vojin Janjić:

TENNESSEE VALLEY AUTHORITY (TVA) - SEQUOYAH NUCLEAR PLANT (SQN) - NPDES PERMIT NO. TN0026450 - PROCESS WATER FROM INSTALLATION OF PILINGS FOR STEAM GENERATOR REPLACEMENT CRANE FOUNDATION

In the Sequoyah Nuclear Plant Unit 2 Cycle 18 refueling outage of October 2012, TVA will replace the unit's four steam generators. Replacement of the four Unit 2 steam generators is a large maintenance project. Each of the steam generators will be cut free from existing piping and then lifted out from the top of the concrete shield building, through the steel containment and internal structural concrete enclosures that house the steam generators, through temporary openings by a large crane. The steam generators will then be transported to the steam generator storage facility located on site. The replacement steam generators will then be lowered into the building and the temporary openings closed.

The large crane used to remove the old steam generators and replace the new steam generators will be located on the South side of the Unit 2 Reactor Building. In order to support a crane this large, approximately 80 pilings will be installed into bedrock and a foundation will be poured. This process will use Sequoyah's existing Fire Protection Water System to supply approximately 20,000 gallons of water per day for cooling. The cooling water for the drill will be filtered then routed to the Low Volume Waste Treatment Pond.

The waste water generated from the piling installation meets the Low Volume Waste definition and will be discharged utilizing Sequoyah's existing waste water treatment process. The waste water will discharge to the Alum Sludge Ponds and will then be routed to the Low Volume Waste Treatment Pond (LWVTP) Internal Monitoring Point (IMP) 103. The LWVTP is an NPDES permitted treatment facility which provides sedimentation control, pH control, and isolation capabilities. The LWVTP effluent discharges to the diffuser pond and after mixing with condenser cooling water discharges out an approved NPDES outfall (DSN 101) into the Tennessee River.

COOL  
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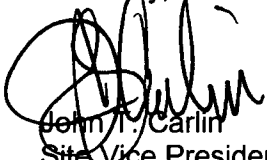
The potential pollutants discharged from this process are > 9 pH water, total residual chlorine, and total suspended solids. The discharge process for this waste water will be visually monitored 24 hours a day, 7 days a week. Additionally, once per day during discharge, the waste water will be checked for pH, total residual chlorine, and total suspended solids at the Low Volume Waste Treatment Pond (LWVTP) Internal Monitoring Point (IMP) 103. No exceedances are expected at either IMP 103 or DSN 101. NPDES permit limits are 100 mg/L for TSS, 6 - 9 for pH, and 0.10 mg/L for TRC.

Any solid waste generated from this project (filters or sludge) will be handled as special waste and depending on the quantity will be disposed of in dumpsters utilizing a Special Waste permit issued by TDEC or will be shipped in drums to the TVA Hazardous Waste Storage Facility in Muscle Shoals, Alabama for disposal.

If you have any questions or need additional information, please contact Brad Love at (423) 843-6714 of Sequoyah's Environmental staff.

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Sincerely,



John T. Carlin  
Site Vice President  
Sequoyah Nuclear Plant

cc:

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