



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

August 24, 2010

Mr. Paul E. Davis, Director
State of Tennessee
Department of Environment and Conservation
Division of Water Pollution Control
6th Floor, L & C Annex
401 Church Street, Nashville, TN 37243

Dear Mr. Paul E. Davis:

SEQUOYAH NUCLEAR PLANT (SQN) NPDES PERMIT NO. TN0026450 WRITTEN
SUBMISSION REGARDING TOWERBROM 960 RELEASE

TVA is providing written notification for the subject release that occurred on August 20, 2010. The verbal notification for this same release was provided by telephone to the Chattanooga Environmental Field Office (EFO) on August 21, 2010 at 1509 and to the Tennessee Emergency Management Agency (TEMA) on August 21, 2010 at 1510. Since the EFO telephone notification was via voice message, Stephanie Howard of TVA and Leetha Abazid of the EFO discussed the event on August 23, 2010. Please see the Attachment (enclosed) for details of the event.

If you have any questions or need additional information, please contact Stephanie Howard at (423) 843-6700 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,

Christopher R. Church
Site Vice President
Sequoyah Nuclear Plant

Enclosure

cc (Enclosure):

Chattanooga Environmental Field Office
Division of Water Pollution Control
State Office Building, Suite 550
540 McCallie Avenue
Chattanooga, Tennessee 37402-2013

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

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NRK

Attachment

Description of the Discharge and Determination of Cause:

At 1850 on 8/20/10, plant security personnel observed a leak adjacent to the Essential Raw Cooling Water (ERCW) building at the Sequoyah Nuclear Plant (SQN). The pumps in this building transfer Tennessee River water into the plant for cooling purposes. The leak was spraying from an outside chemical injection pipe fitting drain plug, overflowing a small basin, onto concrete, and over a ledge into the Tennessee River. Personnel were dispatched to investigate. The leak was determined to be treated ERCW. The chemical used to treat the ERCW is Towerbrom 960, a mixture of sodium dichloroisocyanurate and sodium bromide. The preliminary cause of the leak is the failure of the drain plug due to corrosion.

Period of Discharge:

The chemical feed was initiated at 1650 on 8/20/10 and discovered at 1850 on 8/20/10. The treatment chemical feed was isolated at 1955. Therefore, the duration of the leak is bounded by a minimum of 65 minutes to a maximum of 185 minutes. A sample of water in the bottom of the catch basin was analyzed and determined to contain 55 ppm total residual chlorine. The permit limit at Outfall 101 is 0.1 ppm chlorine (total residual). No reportable quantity per CERCLA was exceeded. TDEC notification satisfied Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requirements. An estimated 180 to 540 gallons of treated water was spilled. No other chemical release to the Tennessee River occurred.

Steps Being Taken to Reduce, Eliminate, and Prevent Recurrence

When site emergency responders arrived at 1950 on 8/20/10, a spill response catch basin was placed under the leak location, capturing approximately 125 gallons. The strainer water feed was isolated at 2053. At this point, all flow was terminated. The cause of the leak is being investigated and, once determined, permanent corrective actions will be taken. SR 236979 was written to document the incident and corrective actions. Currently ERCW chemical additions have been temporarily suspended until a full extent of condition including examination of other drain plugs can be completed. A system walk down was completed 8/21/10 to verify proper system alignment. No misalignments were found. Metallurgical examination of the drain plug is in progress to determine the exact cause of failure.

Other Details:

No fish distress, fish mortality, or abnormal bird migration was observed by site personnel the evening of the event and the morning following. The afternoon of 8/21/10, TVA Biological Resource Staff visually surveyed the near shore area by boat two miles upstream and four miles downstream of the Plant for any signs of dead or dying fish, or aquatic wildlife. During the investigation, water fowl (two groups of 8 and 6 of Canada Geese), three Great Blue Herons and two Cormorants were observed. No dead or dying fish or affected wildlife was observed in the search area. The opposite shore line was also surveyed to verify any effects of the biocide spill. No dead or dying fish or affected wildlife was observed.