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May 04, 2010

Chattanooga Environmental Field Office
Division of Water Pollution Control
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TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT - TENNESSEE STORM WATER MULTI-SECTOR GENERAL PERMIT FOR INDUSTRIAL ACTIVITIES PERMIT NO. TNR050015 SECTOR O EXCEEDANCE OF THE BENCHMARK MONITORING REQUIREMENT

This letter provides the sixty day notification of the review of Sequoyah Nuclear Plant's Storm Water Pollution Prevention Plan (SWPPP) and summary of the Best Management Practices (BMPs) modifications and additions concerning the exceedance of the benchmark monitoring requirement for total recoverable iron for Storm Water Outfall Nos. 1, 2, 15, and 17.

Description of Event

Tennessee Storm Water Multi-Sector General Permit for Industrial Activities Sector O requires annual monitoring of total recoverable iron. Sequoyah Nuclear Plant sampled for total recoverable iron on March 2, 2010 and March 11, 2010. The storm water analytical monitoring results were received on March 8, 2010 and March 19, 2010. The analytical monitoring results for Storm Water Outfalls Nos. 1, 2, 15 and 17 exceeded the benchmark monitoring requirement for total recoverable iron as stated in Table O-2, Benchmark Monitoring Requirements for Steam Electric Power Generating Facilities.

Storm Water Outfall No. 2 was sampled for total recoverable iron on March 2, 2010 and results were received on March 8, 2010. The analytical monitoring result for Storm Water Outfall No. 2 was 6.3mg/L. The backup sample for Storm Water Outfall No. 2 was sent for analysis on March 8, 2010 and results were received on March 10, 2010. The backup analytical monitoring result for Storm Water Outfall No. 2 was 4.3mg/L. Since the backup sample result was below the benchmark of 5.0mg/L, SQN had the original and the backup samples reanalyzed. The original sample was reanalyzed and the iron results were 5.5mg/L and 5.2mg/L. The backup sample was reanalyzed and the iron results were 5.2mg/L and 5.2mg/L. The average of the six analytical monitoring results for Storm Water Outfall No. 2 was 5.3mg/L. (See Table 1)

Storm Water Outfall Nos. 1, 15, and 17 were sampled for total recoverable iron on March 11, 2010 and results were received on March 19, 2010. The analytical monitoring results for Storm Water Outfall Nos. 1, 15, and 17 were 12.0mg/L, 7.4mg/L, and 6.2mg/L respectively. Backup samples for Storm Water Outfall Nos. 1, 15, and 17 were sent for analysis on March 22, 2010 and results were received on March 26, 2010. The backup analytical monitoring results for Storm Water Outfall Nos. 1, 15, and 17 were 11.0mg/L, 7.6mg/L, and 6.9mg/L respectively. The average analytical monitoring results for Storm Water Outfall Nos. 1, 15, and 17 were 11.5mg/L, 7.5mg/L, and 6.6mg/L respectively. (See Table 1)

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TABLE 1						
Storm Water Outfall No.	Sample Date	Received Date	Original Sample Results (mg/L)	Backup Sample Results (mg/L)	Average Sample Results (mg/L)	Benchmark Monitoring Requirement (mg/L)
1	3/11/2010	3/19/2010	12.0	11.0	11.5	5.0
2	3/02/2010	3/08/2010	6.3, 5.5, 5.2	4.3, 5.2, 5.2	5.3	5.0
15	3/11/2010	3/19/2010	7.4	7.6	7.5	5.0
17	3/11/2010	3/19/2010	6.2	6.9	6.6	5.0

Likely Cause of the Exceedance(s)

The likely cause of the exceedances of the benchmark monitoring requirement for total recoverable iron is elevated background iron concentration in the soil around the storm water outfalls (based on historical sampling) and the need for more effective best management practices (BMPs). Sequoyah is examining the use of more effective filtration methods at these outfalls, as discussed in the thirty day notification letter dated April 1, 2010.

Preventative Measures taken to Minimize a Reoccurrence

Sequoyah Nuclear Plant's SWPPP has been reviewed to determine the modifications and additions to the plan which would assist in reducing the iron effluent concentration of Storm Water Outfall Nos. 1, 2, 15, and 17.

Storm Water No. 1

Per the SQN SWPPP, there are no paved surfaces in this drainage area. Ground cover consists of rip-rap and grass.

The following modifications will be made within 60 days: The area will be reseeded and new booms will be added around Storm Water No. 1. Storm water sampling and analysis will be conducted during 2010 to determine if these modifications and additions have been effective and if additional measures should be taken.

Storm Water No. 2

Per the SQN SWPPP, there are no paved surfaces in this drainage area. Ground cover consists of crushed stone, gravel, and grass. Drainage ditches are equipped with check dams as BMPs.

The following modifications were made: New hay bales and booms have been placed in the drainage ditch and general housekeeping has taken place in the area around Storm Water No. 2. Storm water sampling and analysis will be conducted during 2010 to determine if these modifications and additions have been effective and if additional measures should be taken.

Storm Water No. 15

Per the SQN SWPPP, there are no paved surfaces in this drainage area. Ground cover consists of rip-rap and grass. Rock lined drainage ditches are equipped with check dams as BMPs.

The following modifications were made: New booms have been placed in the drainage ditch and general housekeeping has taken place in the area around Storm Water No. 15. Gravel will be added to the drainage ditch within 60 days. Storm water sampling and analysis will be conducted during 2010 to determine if these modifications and additions have been effective and if additional measures should be taken.

Storm Water No. 17

Per the SQN SWPPP, ground cover and erosion controls consist of pavement, gravel, and rip rap in this drainage area.

The following modifications were made: New hay bales and silt fencing have been added in the drainage ditch and general housekeeping has taken place in the area around Storm Water No. 17. Storm water sampling and analysis will be conducted during 2010 to determine if these modifications and additions have been effective and if additional measures should be taken.

If you have any questions or need additional information, please contact Ann Hurt at (423) 843-6714 or 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

cc:
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