Tennessee Valley Authority, Sequoyah Nuclear Plant, P.O. Box 2000, Soddy Daisy, TN 37384

March 20, 2019

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Subject: **Sequoyah Nuclear Plant, 2019 Intake Forebay Aeration Plan**

Attached is the 2019 Intake Forebay Aeration Plan for Sequoyah Nuclear Plant.

Respectfully,

Millicent Garland
Environmental Scientist

Tennessee Valley Authority, 1101 Market Street, BR 4A, Chattanooga, Tennessee 37402-2801

March 14, 2019

Ms. Jennifer Innes
Program Manager
Chattanooga Environmental Field Office
Division of Water Resources
1301 Riverfront Parkway, Suite #206
Chattanooga, Tennessee 37402

Dear Ms. Innes:

TENNESSEE VALLEY AUTHORITY (TVA) – SEQUOYAH NUCLEAR PLANT (SQN) – NPDES PERMIT NO. TN0026450 – INTAKE FOREBAY AERATION PLAN

In accordance with Part III.I of the subject permit, please find enclosed the revised plan for providing supplemental aeration in low-oxygen zones of the SQN intake forebay area to serve as a fish refuge.

Since SQN does not have a permanent aeration system installed, the plan has been updated to include an action value to bring onsite a temporary compressor when dissolved oxygen in the intake forebay decreases below 3.5 mg/L. Dissolved oxygen (DO) measurements will continue to be collected at the SQN intake skimmer wall, and aeration of the intake forebay will be initiated when DO concentrations decrease below 3.0 mg/L.

If you have any questions, please contact Millicent Garland at (423) 843-6714 or by email at mrmoore@tva.gov.

Sincerely,

Matthew Rasmussen
Site Vice President
Sequoyah Nuclear Plant

Enclosure

cc (Enclosure):
Mr. Vojin Janjić
Division of Water Resources
Tennessee Department of Environment and Conservation (TDEC)
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

TVA SEQUOYAH NUCLEAR PLANT
NPDES PERMIT NO. TN0026450
INTAKE FOREBAY AERATION PLAN

From May 1 to September 30, dissolved oxygen (DO) sampling of the SQN intake forebay will be conducted to monitor for low DO conditions which could contribute to a fish kill. DO measurements will be collected at the skimmer wall approximately 14 meters below the top of the wall. This depth corresponds to approximately the center of the submerged opening beneath the skimmer wall. TVA will also perform visual inspections of the SQN intake forebay for signs of fish distress at the water surface.

TVA will begin to sample the SQN intake forebay at least once per week beginning May 1 of each calendar year. If the DO decreases to below 4.0 mg/L, TVA will increase DO sampling to a minimum of three times per week. If the DO decreases to below 3.5 mg/L, TVA will ensure the temporary compressor is brought onsite, functioning properly, and available for operation. If the DO decreases to below 3.0 mg/L, TVA will place the aeration system in service.

While aeration is in service, DO sampling frequency will be reduced to a minimum of once per week. The aeration system will be removed from service if the DO increases to 4.0 mg/L or higher. If the aeration system is removed from service, DO sampling will resume at a minimum of three times per week to ensure conditions remain stable.

If sampling demonstrates DO conditions remain stable or increasing above 4.0 mg/L, sampling frequency will be reduced to a minimum of once per week. If the sampled DO again drops below 4.0 mg/L, TVA will resume sampling at a minimum of three times per week, until the aeration system is again placed in service or the DO conditions again become stable or increase above 4.0 mg/L.

If the measured DO remains stable above 4.0 mg/L after September 30 of each calendar year, DO sampling will be suspended. If a fish kill is observed in the SQN intake forebay which is attributed to low DO conditions, TVA will notify the appropriate agencies in accordance with TVA's standard operating procedures for incident reporting.