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

December 21, 2007

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

Gentlemen:

In the Matter of	)	Docket Nos. 50-327
Tennessee Valley Authority (TVA)	)	50-328

SEQUOYAH NUCLEAR PLANT – NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT NO. TN0026450 APPROVED CHANGES

The enclosure provides the approved changes to SQN NPDES Permit No. TN0026450 as required by SQN Environmental Technical Specification Section 5.5.2, Changes in Permits and Certifications.

If you have any questions concerning this matter, please call me at (423) 843-7170 or J. W. Proffitt at (423) 843-6651.

Sincerely,

James D. Smith
Manager, Site Licensing and
Industry Affairs

Enclosure
cc (Enclosure):
Mr. Brendan T. Moroney, Senior Project Manager
U.S. Nuclear Regulatory Commission
Mail Stop 08G-9a
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852-2739

C001
NRR

ENCLOSURE

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT (SQN)

NPDES PERMIT NO. TN0026450 APPROVED CHANGE

STATE OF TENNESSEE

NPDES PERMIT

No. TN0026450
MODIFICATION: November 30, 2007

Authorization to discharge under the
National Pollutant Discharge Elimination System (NPDES)

Issued By

Tennessee Department of Environment and Conservation
Division of Water Pollution Control
401 Church Street
6th Floor, L & C Annex
Nashville, Tennessee 37243-1534

Under authority of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and the delegation of authority from the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.)

Discharger:	**TVA - Sequoyah Nuclear Plant**
is authorized to discharge:	**process and non-process wastewater through Outfalls 101, 103, 107, 110, 116, 117 and 118**
from a facility located:	**in Soddy Daisy, Hamilton County, Tennessee**
to receiving waters named:	**Tennessee River at mile 483.65 (Outfall 101), 484.85 (Outfall 116), 485.2 (Outfall 117), and 484.8 (Outfall 118)**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on: **January 1, 2008**

This permit shall expire on: July 28, 2009

Issuance date: **November 30, 2007**

Wade D. Murphy for

Paul E. Davis, Director
Division of Water Pollution Control

CN-0759

RDAs 2352 and 2366

ADDENDUM TO RATIONALE
TVA – Sequoyah Nuclear Plant (SQN)
PERMIT NO. TN0026450

June 11, 2007, additional edits November 30, 2007

Addendum prepared by: Ms. Pamala Myers

In a letter prepared by Mr. Gordon G. Park, Manager, Environmental Affairs dated, May 22, 2007 Tennessee Valley Authority (TVA) submitted a request for modification of NPDES Permit No. TN0026450.

TVA – Sequoyah Nuclear plant (SQN) NPDES permit will undergo this modification to edit the following language in the permit.

FROM: PART III, F.STUDIES RELATED TO EVALUATION OF CWA SECTION 316

2. Section 316(b)

   a. EPA promulgated the rule to implement section 316(b) of the Clean Water Act on Friday, July 9, 2004 and made the regulation effective September 7, 2004. The final rule constitutes Phase II of the section 316(b) regulation development. 316(b) limitations for this facility are determined to be in compliance based on best professional judgment in accordance with 40 CFR 401.14 and 122.43. The permittee is required to expeditiously submit the comprehensive demonstration study and other information as required by 40 CFR 125.95 as expeditiously as possible but no later than January 7, 2008.

The above language is to be replaced with the following:

   a. Remaining 316(b) requirements for this facility are determined to be in compliance based on best professional judgment in accordance with 40 CFR 401.14 and 122.43. Not later than January 7, 2008, the permittee shall submit to the division, at a minimum, biological monitoring data collected in accordance with the permittee's Proposal for Information Collection (PIC) plan as developed under the 316(b) requirements prior to their suspension by EPA on March 20, 2007. This permit may be reopened to address new 316(b) compliance requirements upon issuance of a new rule or final guidance by EPA.

During the initial public notice of the June 11, 2007 draft permit addressing TVA's request for permit modification of the 316(b) language EPA Region 4 suggested the division add language to the rationale of the permit to better detail the events supporting this modification. The following language is intended to clarify in detail the recent Court actions relating to the 316(b) rule.

This permit, TN0026450, has been previously issued under the federal NPDES permit program. In those previous permits the facility was deemed to be in compliance with the Clean Water Act Regulations, Establishing Requirements for Cooling Water Intake Structures at Phase II Existing Facilities. This regulation is also referred to as the "316(b) rule". Previous and current compliance with the rule have been and continue to be based on best professional judgment (BPJ) in accordance with Title 40 CFR 401.14 and 122.43. Re-evaluation of the effectiveness of this control is not necessary at this

time, because the permit is only being modified for the purpose of removing the reporting date for the Compliance Demonstration Study (CDS). There has been no material change to the intake [structure(s)] since previous NPDES permits were approved, and there are no data suggesting that the impact on the aquatic community has changed from previous years.

The following is intended to support the actions being taken today by the Tennessee Division of Water Pollution Control in order to bring the permit up to date with current law.

On February 16, 2004, EPA took final action on regulations governing cooling water intake structures at certain existing power producing facilities under section 316(b) of the Clean Water Act (Phase II rule). 69 FR 41576 (July 9, 2004). The final Phase II rule applies to existing facilities that are point sources that, as their primary activity, both generate and transmit electric power or generate electric power for sale to another entity for transmission; use or propose to use cooling water intake structures with a total design intake flow of 50 MGD or more to withdraw cooling water from waters of the United States; and use at least 25 percent of the water withdrawn exclusively for cooling purposes (see 40 CFR 125.91).

Under the Phase II rule, EPA established performance standards for the reduction of impingement mortality and entrainment (see 40 CFR 125.94). The performance standards consist of ranges of reductions in impingement mortality and/or entrainment. These performance standards were determined to reflect the Best Technology Available (BTA) for minimizing adverse environmental impacts at facilities covered by the Phase II rule.

These regulations were challenged by industry and environmental stakeholders. On judicial review, the Second Circuit decision (Riverkeeper, Inc. v. EPA, 475 F.3d 83, (2d Cir., 2007)) remanded several provisions of the Phase II rule on various grounds. The provisions remanded to EPA include:

- EPA's determination of the BTA under section 316(b);
- The rule's performance standard ranges;
- The cost-cost and cost-benefit compliance alternatives;
- The Technology Installation and Operation Plan provision;
- The restoration provision; and
- The ``independent supplier'' provision.

With several significant provisions of the Phase II rule affected by the decision, and with the need to provide timely direction to Stakeholders about the continuing application of the Phase II rule, EPA's Assistant Administrator for Water issued a memorandum on March 20, 2007, which announced EPA's intention to suspend the Phase II rule. This memorandum also discussed the anticipated issuance of [this] Federal Register suspension document.

The formal suspension of the rule was published in the Federal Register: July 9, 2007 (Volume 72, Number 130)][Rules and Regulations][Page 37107-37109], and is available from the Federal Register Online via GPO Access [wais.access.gpo.gov][DOCID:fr09jy07-3].

Upon notice of the suspension of this rule the TVA submitted requests to modify and remove only the suspended 316(b) requirements previously issued in this and seven (7) other TVA NPDES permits. The division is in agreement with the TVA request and by action of formal modification is removing only those requirements specifically suspended by the EPA, specifically the CDS report. All other permit requirements remain in place as enforceable compliance items as previously permitted and are deemed to remain in compliance with the remainder of the Clean Water Act based on BTA and best professional judgment (BPJ).

Therefore, no later than January 7, 2008, the permittee should submit to the division, at a minimum, biological monitoring data collected in accordance with the permittee's Proposal for information Collection (PIC) plan as developed under 316(b) requirements prior to their suspension by EPA. This and other information will be used to support evaluation of Best Technology Available during permit reissuance in subsequent years.

In addition to the above described modifications, the division proposes to change the monitoring frequency of total residual chlorine (TRC) from "5/week" to "daily".

On February 22, 2007 the Division of Water Pollution Control (the "division") received a letter from Ms. Stephanie Howard, Principal Environmental Engineer at TVA-Sequoyah Nuclear Plant, requesting to amend the current Biocide/Corrosion Treatment Plan (B/CTP) to add Sodium Hypochlorite (liquid bleach) with continuous application as an oxidizing biocide. This action constitutes a formal process change to the B/CTP [plan] and modification to the NPDES permit.

The permittee has demonstrated to the division that with continuous Sodium Hypochlorite application the monthly average limit of 0.10 mg/L and the daily maximum limit of 0.10 mg/L for Total Residual Chlorine (TRC) will remain protective of water quality in the Tennessee River at a flow from Outfall 101 of 1597.2 MGD. Therefore, the sampling at Outfall 101 for TRC/TRO shall be increased to daily (only when chlorinating) by mass balance calculations as approved in the B/CTP. The permit limits table for Outfall 101 shall also reflect this approved change.

PRM

Permit Addendum June11, 2007 TN0026450.doc

Permit additional Addendum notes November 30, 2007 TN0026450.doc