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

February 12, 2009

State of Tennessee
Department of Environment and Conservation
Division of Water Supply
Compliance Review Section
6th Floor, L & C Tower
401 Church Street
Nashville, Tennessee 37243-1539

To whom it may concern:

TENNESSEE VALLEY AUTHORITY (TVA) – SEQUOYAH NUCLEAR PLANT (SQN) - NPDES PERMIT NO. TN0026450 – WATER WITHDRAWAL ANNUAL UPDATE

In accordance with the provisions of the Tennessee Water Resources Information Act of 2002, T.C.A. 69-7-301 et seq., enclosed are completed Water Withdrawal Registration Forms for SQN for calendar year 2008.

As previously reported, federal agencies are not subject to laws and regulations promulgated by state governments unless Congress has clearly waived the federal government's sovereign immunity. However, TVA has voluntarily agreed as a matter of policy to provide the registration information to assist both TVA and TDEC in carrying out their water management responsibilities. By voluntarily cooperating with the State of Tennessee in its water management programs, TVA does not waive any immunity it may have under the Constitution from State regulation and control, nor manifest any position on who may control or own the water.

Should you have any questions or need additional information, please contact me at 423-843-6700 or by e-mail at sahoward@tva.gov.

Sincerely,

Stephanie A. Howard

Stephanie A. Howard
Principal Environmental Engineer
Signatory Authority for
Timothy P. Cleary
Site Vice President
Sequoyah Nuclear Plant

C001
NRR

Enclosure
cc (Enclosure):

Chattanooga Environmental Assistance Center
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

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER SUPPLY
6th Floor L & C Tower, 401 Church Street
Nashville, Tennessee 37243-1539
(615) 532-0191

WATER WITHDRAWAL REGISTRATION

In accordance with the provisions of Tennessee Code Annotated Section 69-7-301 et seq., the Water Resources Information Act; this registration is required for anyone withdrawing an average of 10,000 gallons or more of water per day.

PART A. FACILITY & CONTACT INFORMATION

1. Withdrawal Registration No.: 628 (For Official Use Only)

2. Water User: TVA-SEQUOYAH NUCLEAR PLANT Type: THERMAL PLANT (Nuclear)
   Mailing Address: P.O. BOX 2000 SB-2A-SQN
   City: SODDY-DAISY State: TN Zip: 37384-2000

3. Location (if different from mailing address):
   Street Address: SEQUOYAH ACCESS ROAD
   City: SODDY-DAISY State: TN Zip: 37384-2000

4. Number of employees at location: 832

5. Indicate the contact individual for water withdrawal information:
   Name: Stephanie A. Howard Title: Principal Environmental Engineer
   e-mail: sahoward@tva.gov Phone: 423-843-6700 Fax: 423-843-7080

PART B. WATER USE REPORTING PERIOD

6. Year: **2008** Seasonal Withdrawals Beginning (Month/Year): N/A Ending (Month/Year): N/A

7. Water Registration: (Check One): ____ New Operation X Renewal

8. List any water problems you have experienced in the last reporting period: N/A

9. Number of days ground water (springs and wells) has been withdrawn during the year: 0

10. Number of days surface water (streams) has been withdrawn during the year: 366

11. **Total number of days water has been withdrawn during the year:** 366
    No surface or ground water is withdrawn—all water is purchased from: N/A

12. Classification of Water Use (Use all that Apply) and Percentage of Total use:

____	%	a) Domestic water use (drinking, human consumption and general sanitation uses)
____	%	b) Institutional or other general uses (lawn watering, laundry)
____	%	c) Irrigation of crops, pastures and nursery stock
____	%	d) livestock watering (includes feed lots, dairy sanitation and fish farming)
____	%	e) navigation (lock usage and flow augmentation for navigation)
100	%	f) thermoelectric power production, including cooling purposes (excludes hydroelectric)
____	%	g) recreational use, park use, golf course irrigation, water park use
____	%	h) industrial uses include manufacturing, food processing, washing, and cooling
____	%	i) hydroelectric power generation (provided none of it is used consumptively)
____	%	j) mining (milling or where water is used to wash or process an ore)
____	%	k) dewatering (mining, quarry rock production, other operations where water is withdrawn)
____	%	l) any other use not defined above. Describe: ____
100	%	**Total (Must equal 100%)**

PART C. WATER WITHDRAWAL INFORMATION (Attach additional sheets if necessary)

Year 2008

I.D. #	Source Name	G S P[1]	County	River Mile	Latitude [2]	Longitude [2]	Method of Measure[3]	Million Gallons Withdrawn
N/A	TN River (CCW)	S	Hamilton	485.2	35-13-33	85-05-13	B	589723.2
N/A	TN River (ERCW)	S	Hamilton	484.85	35-13-32	85-05-03	B	23126.4
13.	**Total Volume Withdrawn in Million Gallons=**							**612849.6**
14.	**Average Daily Water Withdrawal for year (Line 13 divided by Line 11)=**							**1674.5**
15.	**Max. Daily Water Withdrawal (MG):** 1674.5 **Occurred in the Month of:** any month							

[1] G=Ground water (well or spring);
S=Surface water (stream, river, holding pond, lake);
P=Purchased water

(Check One)
[2]Datum: ☐ NAD 27 ☐ NAD 83

[3]Method of Measurement Key:
A=Flow Meter
B=Calculated using pump capacity rating and duration of pumpage
C=Capacity of vessel holding water
D=Electronic flow measurement
E=Other (explain below:)

PART D. WATER DISCHARGE (Attach additional sheets if necessary)

Year 2008

I.D. #	Discharge Site Name[4]	River Mile	County	NPDS Permit #	Latitude	Longitude	Percent of effluent	Million Gallons Returned
101	TN River (Diffuser)	483.65	Hamilton	TN0026450	35-12-35	85-05-14	99%	567338.00
116	TN River (CCW)	485.2	Hamilton	TN0026450	35-13-33	85-05-13	<1%	2.19
117	TN River (ERCW)	484.85	Hamilton	TN0026450	35-13-32	85-05-03	<1%	5.11
16.	**Total Volume of Water Returned (Effluent or Discharge) in Million Gallons equals:**							**567345.3**

[4]Examples of discharge sites: stream, well injection, spray, public sewer system, septic tank, field tile

PART E. SIGNATURE

I hereby certify that the information on this form is true and complete to the best of my knowledge.

16. **Print Name:** Stephanie A. Howard Signatory Authority for Timothy P. Cleary Site Vice President Sequoyah **Date:** 2/12/2008

17. **Signature:** Stephanie A Howard

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER SUPPLY
6th Floor, 401 Church Street
Nashville, Tennessee 37243-1539
615-532-0191
FAX 615-532-0503

January 8, 2009

STEPHANIE A. HOWARD, PRINCIPAL ENV. ENGINEER 628
TVA-SEQUOYAH NUCLEAR PLANT
P.O. BOX 2000 SB-2A-SQN
SODDY-DAISY, TN 37384-2000

RE: Annual Water Withdrawal Registration

Dear MS. HOWARD,

The Tennessee Water Resources Information Act of 2002, T.C.A. 69-7-301 et. seq., requires all persons withdrawing 10,000 gallons or more of water per day to register the withdrawal with the state on an annual basis. **2008 Water Withdrawal Registration forms are due back to the Division of Water Supply no later than February 15, 2009.**

Enclosed is a 2008 Water Withdrawal Registration form for **TVA-SEQUOYAH NUCLEAR PLANT**. Please correct any contact information that has changed, complete your 2008 water withdrawal data, sign and return the form to the Division of Water Supply by February 15, 2009. The form may also be downloaded from our web site at http://state.tn.us/environment/dws/WWregprog.shtml under the "Water Withdrawal Registration Form". The regulations can also be accessed from our web site.

Next year, you will be **required to submit monthly water withdrawal data**. Enclosed is a sample form. If not already doing so, begin logging your monthly water withdrawal data in 2009.

Failure to register water withdrawals is a violation of the Act and subjects the person withdrawing water to enforcement action including a civil penalty for failure to register the amount of water withdrawn. The withdrawal of surface water may also require an Aquatic Resource Alteration Permit (ARAP). If you have questions on ARAP requirements, visit http://www.state.tn.us/environment/permits/arap.shtml or call the Division of Water Pollution Control at 615-532-0625.

If you have any questions concerning Water Withdrawal Registration requirements, please contact Wayne Muirhead at 615-253-4067 or wayne.muirhead@state.tn.us

Sincerely,

Robert L. Foster, Jr.

Robert L. Foster, Jr.
Director
Division of Water Supply

2 Enclosures: 2008 Water Withdrawal Registration Form, 2009 Water Withdrawal Form (Draft) 628

WATER WITHDRAWAL REGISTRATION

The Tennessee Department of Environment and Conservation (TDEC), Division of Water Supply (DWS) under the Water Resources Information Act of 2002 (T.C.A. §§ 69-7-301 et seq.) maintains a water withdrawal registration in order to better protect the water resources of the State. The registration of water withdrawals applies to all persons withdrawing water from either a surface water or ground water source if the average withdrawal meets or exceeds 10,000 gallons a day for any purpose, except those excluded by the Act. Uses specifically excluded include water used for agriculture, nonrecurring withdrawals of water, and water withdrawn for an emergency use. Also, water purchased from a utility or an industry is not required to be reported. All entities withdrawing water, whether required or excluded by the Water Resources Information Act of 2002, are encouraged to submit an annual Water Withdrawal Registration to the TN Division of Water Supply so that accurate documentation of water use is available for present and future Tennessee water resource studies.

INSTRUCTIONS:

The registration of a withdrawal is done annually. Data reported should be based on a calendar year and reported by February 15 of the next year. To determine if the volume of water withdrawn meets the requirement of an average withdrawal of 10,000 gallons per day, divide the total amount of water withdrawn (line 13) by the number of days (line 11) that water is withdrawn. A "New Operation" may not have any historical data on which to base its withdrawal data. Estimate or indicate the amount of water anticipated to be withdrawn. If this is a renewal, report the amount withdrawn during the past year in Part C.

Part A. Facility & Contact Information

1. The Withdrawal Registration No. is assigned by the Division of Water Supply (DWS). Report all annual water withdrawals using your assigned Withdrawal Registration Number. Leave blank for new operations.
2 through **5**. Complete the facility and main contact information. Select type of water users **(industrial, irrigation, mining, or thermal plant)**.

Part B. Water Use Reporting Period

6. Indicate year, the beginning month/year and the ending month/year if withdrawals are seasonal.
7. Check new or renewal water withdrawal registration.
8. List any water problems encountered during the year (supply, quality, flooding, turbidity).
9 to **11**. Complete the days water is withdrawn from ground water and/or surface water sources and give a total number of days water is withdrawn (line 11).
12. Indicate the percent of water used for any of the **12 water use classifications** applicable to your company during the year: **a)** domestic water use includes all water withdrawn by utility districts, municipal public water systems, subdivisions, prisons, colleges, and most small commercial establishments where water is used for drinking, human consumption and general sanitation, **b)** institutional or other general uses (lawn watering, laundry), **c)** irrigation of crops and nursery stock, **d)** livestock watering (includes feed lots, dairy sanitation and fish farming) **e)** navigation (lock usage and flow augmentation for navigation), **f)** thermoelectric power production, including cooling purposes (excludes hydroelectric), **g)** recreational use, park use, golf course irrigation, and water park use, **h)** industrial uses include manufacturing processing, washing, and cooling, including food processing, but excluding mining related uses, **i)** hydroelectric power generation (provided none of it is used consumptively), **j)** mining (milling or where water is used to wash or process an ore), **k)** dewatering (mining, quarry rock production, and other operations where water is withdrawn in order to conduct another activity), and **l)** any other use not defined above.
Total of lines 12(a) through 12(l) must equal 100.

Part C. Water Withdrawal Information

Identify the source point and quantity of water withdrawn from each source point.
If water is purchased, give the name of the municipality or utility district.
Indicate year of withdrawal, ID number (assigned by DWS), source name commonly used by withdrawer to refer to the source, i.e. Smith Spring, Big Creek intake, Collier Road Well. Withdrawals made from multiple wells that are measured at an entry point may be reported as a single figure and described as a well field, e.g. Thomson Well Field. If there are several source points, each metered separately, please report the withdrawal of each source point.
Indicate if water is from Ground, Surface, or Purchased source.

Enter the County, Latitude and Longitude for each source point. It is important that **location information** be as accurate as possible. A GPS unit may be used to give the latitude and longitude in decimal format. If you do not know the latitude and longitude of the intake, use river mile or attach a topographic map with the withdrawal point location(s) marked with a ⊕ and label the mark according to Well, Stream or Spring ID used in this registration. Mark discharge point(s) with an **X**. Latitude longitude may be expressed in degrees, minutes and seconds or in decimal degrees. All USGS topographic maps are set up in degrees, minutes and seconds. USGS maps are referenced to either the North American Datum of 1927 (NAD 27) or 1983 (NAD 83). Most USGS maps are prepared in NAD 27. Newer maps are based on NAD 83. NAD information is listed in the lower left hand corner of the 7.5 minute U.S. Geological Survey topographic map. Check the appropriate NAD datum.

Use the Method of Measurement Key (A, B, C, D, E) to indicate how the volume of water withdrawn is determined (A=flow meter, B=calculated using pump capacity and duration, C=capacity of vessel, D=electronic flow measurement, or E=other). If you select E, explain method of measurement.

13. Add all of the water withdrawals together and give the total volume withdrawn in million gallons.
14. Divide the total volume of water withdrawn **(line 13)** by the total number of days water was withdrawn **(Line 11).** This is the average water withdrawal in million gallons per day. The figure should be fairly large. For example, 2,600,000 gallons would be expressed as "2.6 MG."
15. Enter the maximum daily water withdrawal made during the year in million gallons and enter the month in which the withdrawal was made (e.g., August).

Part D. Water Discharge

It is very important to indicate the **point(s) of return** and **total discharge**. The return information is extremely helpful in identifying potential conflicts. Report water that is discharged to a stream, lake, well, spray, public sewer system, septic tank, field tile. Do not report water that is consumed in an operation e.g. irrigation of a golf course.

Indicate year of discharge, ID number (assigned by DWS), discharge site name. As in water withdrawals, discharge points in close proximity may be identified as a discharge field. If there are several discharge points, each metered separately, please report the volume of each discharge point individually.
Enter the River Mile, County, NPDS permit #, Latitude, Longitude, percent of effluent, and volume returned at each discharge site (million gallons).

16. Add all of the discharge volumes together to get the total volume of discharged water in million gallons. Total volume discharged (in million gallons) may be based on a measured point of return or estimated.

Part E. Signature

17. Print name and date.
18. Sign and mail the Water Registration to:

Division of Water Supply
TN Department of Environment and Conservation
6th Floor L&C Tower, 401 Church St.
Nashville, TN 37243-1549

Water Withdrawal Registration Forms are due to the Division of Water Supply by February 15.

For assistance in completing Water Withdrawal Registration, contact:

Wayne Muirhead
Environmental Specialist
615-253-4067 FAX:615-532-0503
wayne.muirhead@state.tn.us