TENNESSEE VALLEY AUTHORITY

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

February 15, 2023

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

Subject: **Sequoyah Nuclear Plant, Annual Water Withdrawal Report 2022**

Attached is the annual water withdrawal report for CY 2022 for Sequoyah Nuclear Plant.

Respectfully,

Travis R. Markum
Environmental Scientist

From: Markum, Travis R
To: DWRWater.Compliance@tn.gov
Cc: Rebecca Rush
Subject: SQN Water Withdrawal Annual Report 2022
Date: Wednesday, February 15, 2023 3:04:00 PM
Attachments: SQN Annual Water Withdrawal Report 2022.pdf

Please see attached Water Withdrawal Annual Report for calendar year 2022.

Travis R. Markum
Env. Scientist (Compliance)
Environmental Operations

TVA Sequoyah Nuclear Plant
PO Box 2000, OPS 5N
Soddy Daisy, TN 37384

☎: 423-843-6714
✉: trmarkum@tva.gov

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TENNESSEE VALLEY AUTHORITY

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

Sent Via Electronic Mail

February 15, 2023

State of Tennessee
Department of Environment and Conservation
Division of Water Resources
William R Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243

VIA EMAIL TO: DWRWater.Compliance@tn.gov

TENNESSEE VALLEY AUTHORITY (TVA) – SEQUOYAH NUCLEAR PLANT (SQN)
WATER WITHDRAWAL REGISTRATION 2022 – REGISTRATION NUMBER: 628

In accordance with the provisions of Tennessee Code Annotated Section 69-7-301 et seq, enclosed are completed Water Withdrawal Registration Forms for calendar year 2022.

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.

Please contact Travis Markum at (423) 843-6714, or by e-mail at trmarkum@tva.gov, if you have any questions about this submittal or need additional information.

Sincerely,

Tony McMutuary
Senior Manager, Chemistry/Environmental
Sequoyah Nuclear Plant

Enclosure

cc (Electronic Distribution w/ Enclosure):
U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

State of Tennessee
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243

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.
See attached instructions.

PART A. FACILITY & CONTACT INFORMATION

1. Water Withdrawal Registration No.: **628**

2. Water User: TVA - SEQUOYAH NUCLEAR PLANT Type: Thermal (Nuclear)
   Mailing Address: P.O. BOX 2000, OPS 5N-SQN
   City: SODDY DAISY State: TN Zip: 37384 County: HAMILTON

3. Location (if different from mailing address):
   Street Address: SEQUOYAH ACCESS ROAD
   City: SODDY DAISY State: TN Zip: 37379 County: HAMILTON

4. Number of employees at location: 1069

5. Indicate the contact individual for water withdrawal information:
   Name: TRAVIS MARKUM Title: Environmental Scientist (Compliance)
   email: trmarkum@tva.gov Phone: 423-843-6714 Fax:

PART B. WATER USE REPORTING PERIOD

6. Year: **2022**

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

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

9. Classifications of Water Use (Enter Percentage of Total use—Total must equal 100%):

____	%	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%)**

WATER WITHDRAWAL INFORMATION

Year: **2022** Water Withdrawal Registration Number (From **Part A**, Line 1): 628

Company Name: TVA - SEQUOYAH NUCLEAR PLANT

Copy this page and submit a completed page for each withdrawal site. ***See attached instructions.***

Part C. Water Withdrawals

Source Point ID Number: N/A
Source Point Name: TN River (CCW)
Source Type: (G, S, or P): S
County: Hamilton
River Mile: 485.2
Latitude: 35 - 13 - 33
Longitude: 85 - 05 - 13
Datum (NAD 27 or NAD 83): NAD 27
Map: ___ NA x On File ___ Attached
Method of Measure (A, B, C, D, or E): B

JAN Total Withdrawals:	50,086	MG
FEB Total Withdrawals:	45,239	MG
MAR Total Withdrawals:	50,086	MG
APR Total Withdrawals:	48,470	MG
MAY Total Withdrawals:	48,470	MG
JUNE Total Withdrawals:	46,855	MG
JULY Total Withdrawals:	50,086	MG
AUG Total Withdrawals:	50,086	MG
SEPT Total Withdrawals:	48,470	MG
OCT Total Withdrawals:	44,431	MG
NOV Total Withdrawals:	33,929	MG
DEC Total Withdrawals:	50,086	MG

10. Total Annual Withdrawals: 566,296 MG

11. Total # Days Water Withdrawn in Year: 365

12. Grand Total Water Withdrawals: 580,348 MG

13. Grand Total # Days Water Withdrawn in Year: 365

14. Average Daily Water Withdrawals: 1,590 MGD

15. Maximum Day Water Withdrawal: 1,659 MG

16. Maximum Day Water Withdrawal occurred in this month: August

Part D. Water Discharge (if applicable)

Discharge Point ID Number: 116
Discharge Point Name: TN River-CCW Backwash
NPDES Permit No.: TN0026450
County: Hamilton
River Mile: 485.2
Latitude: 35 - 13 - 33
Longitude: 85 - 05 - 13
Datum: NAD 27 or 83: NAD 27
Map on file or attached: On File
Method of Measure (A, B, C, D, or E): B

JAN Total Discharge:	0.1825	MG
FEB Total Discharge:	0.1825	MG
MAR Total Discharge:	0.1825	MG
APR Total Discharge:	0.1825	MG
MAY Total Discharge:	0.1825	MG
JUNE Total Discharge:	0.1825	MG
JULY Total Discharge:	0.1825	MG
AUG Total Discharge:	0.1825	MG
SEPT Total Discharge:	0.1825	MG
OCT Total Discharge:	0.1825	MG
NOV Total Discharge:	0.1825	MG
DEC Total Discharge:	0.1825	MG

17. Total Annual Discharges: 2.19 MG

18. Grand Total Discharges: 614,252 MG

Part E. Signature

I certify, under penalty of law, including but not limited to penalties for perjury, that this document and all attachments were prepared by me, or under my direction or supervision; that all of the submitted information is to the best of my knowledge and belief true, accurate, and complete; and that I am lawfully present in the United States as a U.S. citizen or a qualified alien as defined in 8 U.S.C. §1641(b). As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury. I understand that the penalties for providing false information and making false or fraudulent statements or representations include revocation in a fine, permit or license, civil penalties, and/or criminal prosecution resulting in a fine, imprisonment or both.

Date: 02/14/23

19. Print Name: Tony McMutuary Title: Senior Manager, Chem/Environmental

20. Signature: Tony McMutuary

WATER WITHDRAWAL INFORMATION

Year: **2022** Water Withdrawal Registration Number (From **Part A**, Line 1): 628

Company Name: TVA - SEQUOYAH NUCLEAR PLANT

Copy this page and submit a completed page for each withdrawal site. ***See attached instructions.***

Part C. Water Withdrawals

Source Point ID Number: N/A
Source Point Name: TN River (ERCW)
Source Type: (G, S, or P): S
County: Hamilton
River Mile: 484.85
Latitude: 35 - 13 - 32
Longitude: 85 - 05 - 13
Datum (NAD 27 or NAD 83): NAD 27
Map: ___ NA x On File ___ Attached
Method of Measure (A, B, C, D, or E): B

JAN Total Withdrawals:	1,128	MG
FEB Total Withdrawals:	997	MG
MAR Total Withdrawals:	1,103	MG
APR Total Withdrawals:	1,111	MG
MAY Total Withdrawals:	1,204	MG
JUNE Total Withdrawals:	1,212	MG
JULY Total Withdrawals:	1,302	MG
AUG Total Withdrawals:	1,305	MG
SEPT Total Withdrawals:	1,264	MG
OCT Total Withdrawals:	1,201	MG
NOV Total Withdrawals:	1,101	MG
DEC Total Withdrawals:	1,123	MG

10. Total Annual Withdrawals: 14,052 MG

11. Total # Days Water Withdrawn in Year: 365

12. Grand Total Water Withdrawals: 580,348 MG

13. Grand Total # Days Water Withdrawn in Year: 365

14. Average Daily Water Withdrawals: 1,590 MGD

15. Maximum Day Water Withdrawal: 1,659 MG

16. Maximum Day Water Withdrawal occurred in this month: August

Part D. Water Discharge (if applicable)

Discharge Point ID Number: 117
Discharge Point Name: TN River-ERCW backwash
NPDES Permit No.: TN0026450
County: Hamilton
River Mile: 484.85
Latitude: 35 - 13 - 32
Longitude: 85 - 05 - 13
Datum: NAD 27 or 83: NAD 27
Map on file or attached: On File
Method of Measure (A, B, C, D, or E): B

JAN Total Discharge:	0.4258	MG
FEB Total Discharge:	0.4258	MG
MAR Total Discharge:	0.4258	MG
APR Total Discharge:	0.4258	MG
MAY Total Discharge:	0.4258	MG
JUNE Total Discharge:	0.4258	MG
JULY Total Discharge:	0.4258	MG
AUG Total Discharge:	0.4258	MG
SEPT Total Discharge:	0.4258	MG
OCT Total Discharge:	0.4258	MG
NOV Total Discharge:	0.4258	MG
DEC Total Discharge:	0.4258	MG

17. Total Annual Discharges: 5.11 MG

18. Grand Total Discharges: 614,252 MG

Part E. Signature

I certify, under penalty of law, including but not limited to penalties for perjury, that this document and all attachments were prepared by me, or under my direction or supervision; that all of the submitted information is to the best of my knowledge and belief true, accurate, and complete; and that I am lawfully present in the United States as a U.S. citizen or a qualified alien as defined in 8 U.S.C. §1641(b). As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury. I understand that the penalties for providing false information and making false or fraudulent statements or representations include revocation in a fine, permit or license, civil penalties, and/or criminal prosecution resulting in a fine, imprisonment or both.

Date: 02/14/23

19. Print Name: Tony McMutuary Title: Senior Manager, Chem/Environmental

20. Signature: Tony McMutuary

WATER WITHDRAWAL INFORMATION

Year: **2022** Water Withdrawal Registration Number (From **Part A**, Line 1): 628

Company Name: TVA - SEQUOYAH NUCLEAR PLANT

Copy this page and submit a completed page for each withdrawal site. ***See attached instructions.***

Part C. Water Withdrawals

Source Point ID Number: N/A
Source Point Name: N/A
Source Type: (G, S, or P): N/A
County: Hamilton
River Mile: N/A
Latitude: N/A
Longitude: N/A
Datum (NAD 27 or NAD 83): N/A
Map: x NA ___ On File ___ Attached
Method of Measure (A, B, C, D, or E): N/A

JAN Total Withdrawals:	N/A	MG
FEB Total Withdrawals:	N/A	MG
MAR Total Withdrawals:	N/A	MG
APR Total Withdrawals:	N/A	MG
MAY Total Withdrawals:	N/A	MG
JUNE Total Withdrawals:	N/A	MG
JULY Total Withdrawals:	N/A	MG
AUG Total Withdrawals:	N/A	MG
SEPT Total Withdrawals:	N/A	MG
OCT Total Withdrawals:	N/A	MG
NOV Total Withdrawals:	N/A	MG
DEC Total Withdrawals:	N/A	MG

10. Total Annual Withdrawals: N/A MG

11. Total # Days Water Withdrawn in Year: 365

12. Grand Total Water Withdrawals: 580,348 MG

13. Grand Total # Days Water Withdrawn in Year: 365

14. Average Daily Water Withdrawals: 1,590 MGD

15. Maximum Day Water Withdrawal: 1,659 MG

16. Maximum Day Water Withdrawal occurred in this month: August

Part D. Water Discharge (if applicable)

Discharge Point ID Number: 101
Discharge Point Name: TN River (Diffuser Pond)
NPDES Permit No.: TN0026450
County: Hamilton
River Mile: 483.65
Latitude: 35 - 12 - 35
Longitude: 85 - 05 - 14
Datum: NAD 27 or 83: NAD 27
Map on file or attached: On File
Method of Measure (A, B, C, D, or E): E

JAN Total Discharge:	53,115	MG
FEB Total Discharge:	47,490	MG
MAR Total Discharge:	52,807	MG
APR Total Discharge:	52,468	MG
MAY Total Discharge:	53,446	MG
JUNE Total Discharge:	51,877	MG
JULY Total Discharge:	53,079	MG
AUG Total Discharge:	54,965	MG
SEPT Total Discharge:	53,424	MG
OCT Total Discharge:	49,498	MG
NOV Total Discharge:	38,132	MG
DEC Total Discharge:	53,945	MG

17. Total Annual Discharges: 614,245 MG

18. Grand Total Discharges: 614,252 MG

Part E. Signature

I certify, under penalty of law, including but not limited to penalties for perjury, that this document and all attachments were prepared by me, or under my direction or supervision; that all of the submitted information is to the best of my knowledge and belief true, accurate, and complete; and that I am lawfully present in the United States as a U.S. citizen or a qualified alien as defined in 8 U.S.C. §1641(b). As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury. I understand that the penalties for providing false information and making false or fraudulent statements or representations include revocation in a fine, permit or license, civil penalties, and/or criminal prosecution resulting in a fine, imprisonment or both.

Date: 02/14/23

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