



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

February 15, 2022

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

Subject: **Sequoyah Nuclear Plant, Annual Water Withdrawal Report 2021**

Attached is the annual water withdrawal report for CY 2021 for Sequoyah Nuclear Plant.

Respectfully,

A handwritten signature in black ink, appearing to read "T.R. Markum", is positioned above the typed name.

Travis R. Markum
Environmental Scientist

Sent Via Electronic Mail

February 15, 2022

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

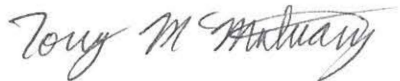
TENNESSEE VALLEY AUTHORITY (TVA) – SEQUOYAH NUCLEAR PLANT (SQN)
WATER WITHDRAWAL REGISTRATION 2021 – REGISTRATION NUMBER: 628

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 2021.

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 Plant (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: n/a

PART B. WATER USE REPORTING PERIOD

6. Year: 2021
7. (Check One): ☐ New Operation ☒ Renewal
8. List any water problems you have experienced in the last reporting period: N/A
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)
<u>100</u> %	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: _____
<u>100</u> %	Total (Must equal 100%)

RAWAL INFORMATION

Year: 2021 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:	<u>49,278</u>	<u>MG</u>
FEB Total Withdrawals:	<u>45,239</u>	<u>MG</u>
MAR Total Withdrawals:	<u>50,086</u>	<u>MG</u>
APR Total Withdrawals:	<u>33,121</u>	<u>MG</u>
MAY Total Withdrawals:	<u>46,316</u>	<u>MG</u>
JUNE Total Withdrawals:	<u>48,470</u>	<u>MG</u>
JULY Total Withdrawals:	<u>50,086</u>	<u>MG</u>
AUG Total Withdrawals:	<u>50,086</u>	<u>MG</u>
SEPT Total Withdrawals:	<u>48,470</u>	<u>MG</u>
OCT Total Withdrawals:	<u>35,006</u>	<u>MG</u>
NOV Total Withdrawals:	<u>47,932</u>	<u>MG</u>
DEC Total Withdrawals:	<u>50,086</u>	<u>MG</u>

10. Total Annual Withdrawals: 554,178 MG

11. Total # Days Water Withdrawn in Year: 365

12. Grand Total Water Withdrawals: 567,653 MG

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 Grand Total # Days Water Withdrawn in Year: 365

14. Average Daily Water Withdrawals: 1,555 MGD

15. Maximum Day Water Withdrawal: 1,657 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:	<u>0.1825</u>	<u>MG</u>
FEB Total Discharge:	<u>0.1825</u>	<u>MG</u>
MAR Total Discharge:	<u>0.1825</u>	<u>MG</u>
APR Total Discharge:	<u>0.1825</u>	<u>MG</u>
MAY Total Discharge:	<u>0.1825</u>	<u>MG</u>
JUNE Total Discharge:	<u>0.1825</u>	<u>MG</u>
JULY Total Discharge:	<u>0.1825</u>	<u>MG</u>
AUG Total Discharge:	<u>0.1825</u>	<u>MG</u>
SEPT Total Discharge:	<u>0.1825</u>	<u>MG</u>
OCT Total Discharge:	<u>0.1825</u>	<u>MG</u>
NOV Total Discharge:	<u>0.1825</u>	<u>MG</u>
DEC Total Discharge:	<u>0.1825</u>	<u>MG</u>

17. Total Annual Discharges: 2.19 MG

18. Grand Total Discharges: 591,751 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: 02/15/22

19. Print Name: Tony McMutuary

Title: Senior Manager, Chemistry/Environmental

20. Signature: Tony McMutuary

RAWAL INFORMATION

Year: 2021 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 ☒ On File ☐ Attached
Method of Measure (A, B, C, D, or E): B

JAN Total Withdrawals:	<u>1,069</u>	<u>MG</u>
FEB Total Withdrawals:	<u>968</u>	<u>MG</u>
MAR Total Withdrawals:	<u>1,104</u>	<u>MG</u>
APR Total Withdrawals:	<u>1,075</u>	<u>MG</u>
MAY Total Withdrawals:	<u>1,178</u>	<u>MG</u>
JUNE Total Withdrawals:	<u>1,168</u>	<u>MG</u>
JULY Total Withdrawals:	<u>1,211</u>	<u>MG</u>
AUG Total Withdrawals:	<u>1,227</u>	<u>MG</u>
SEPT Total Withdrawals:	<u>1,163</u>	<u>MG</u>
OCT Total Withdrawals:	<u>1,078</u>	<u>MG</u>
NOV Total Withdrawals:	<u>1,106</u>	<u>MG</u>
DEC Total Withdrawals:	<u>1,125</u>	<u>MG</u>

10. Total Annual Withdrawals: 13,475 MG

11. Total # Days Water Withdrawn in Year: 365

12. Grand Total Water Withdrawals: 567,653 MG

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

14. Average Daily Water Withdrawals: 1,555 MGD

15. Maximum Day Water Withdrawal: 1,657 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:	<u>0.4258</u>	<u>MG</u>
FEB Total Discharge:	<u>0.4258</u>	<u>MG</u>
MAR Total Discharge:	<u>0.4258</u>	<u>MG</u>
APR Total Discharge:	<u>0.4258</u>	<u>MG</u>
MAY Total Discharge:	<u>0.4258</u>	<u>MG</u>
JUNE Total Discharge:	<u>0.4258</u>	<u>MG</u>
JULY Total Discharge:	<u>0.4258</u>	<u>MG</u>
AUG Total Discharge:	<u>0.4258</u>	<u>MG</u>
SEPT Total Discharge:	<u>0.4258</u>	<u>MG</u>
OCT Total Discharge:	<u>0.4258</u>	<u>MG</u>
NOV Total Discharge:	<u>0.4258</u>	<u>MG</u>
DEC Total Discharge:	<u>0.4258</u>	<u>MG</u>

17. Total Annual Discharges: 5.11 MG

18. Grand Total Discharges: 591,751 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: 02/15/22

19. Print Name: Tony McMutuary

Title: Senior Manager, Chemistry/Environmental

20. Signature: Tony McMutuary

RAWAL INFORMATION

Year: 2021 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: N/A
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:	<u>N/A</u>	MG
FEB Total Withdrawals:	<u>N/A</u>	MG
MAR Total Withdrawals:	<u>N/A</u>	MG
APR Total Withdrawals:	<u>N/A</u>	MG
MAY Total Withdrawals:	<u>N/A</u>	MG
JUNE Total Withdrawals:	<u>N/A</u>	MG
JULY Total Withdrawals:	<u>N/A</u>	MG
AUG Total Withdrawals:	<u>N/A</u>	MG
SEPT Total Withdrawals:	<u>N/A</u>	MG
OCT Total Withdrawals:	<u>N/A</u>	MG
NOV Total Withdrawals:	<u>N/A</u>	MG
DEC Total Withdrawals:	<u>N/A</u>	MG

10. Total Annual Withdrawals: N/A MG

11. Total # Days Water Withdrawn in Year: 365

12. Grand Total Water Withdrawals: 567,653 MG

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

14. Average Daily Water Withdrawals: 1,555 MGD

15. Maximum Day Water Withdrawal: 1,657 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:	<u>53,335</u>	MG
FEB Total Discharge:	<u>48,251</u>	MG
MAR Total Discharge:	<u>53,706</u>	MG
APR Total Discharge:	<u>37,621</u>	MG
MAY Total Discharge:	<u>50,166</u>	MG
JUNE Total Discharge:	<u>52,577</u>	MG
JULY Total Discharge:	<u>54,036</u>	MG
AUG Total Discharge:	<u>53,973</u>	MG
SEPT Total Discharge:	<u>52,384</u>	MG
OCT Total Discharge:	<u>30,757</u>	MG
NOV Total Discharge:	<u>50,892</u>	MG
DEC Total Discharge:	<u>54,044</u>	MG

17. Total Annual Discharges: 591,744 MG

18. Grand Total Discharges: 591,751 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: 02/15/22

19. Print Name: Tony McMutuary

Title: Senior Manager, Chemistry/Environmental

20. Signature: Tony McMutuary

Markum, Travis R

From: Markum, Travis R
Sent: Tuesday, February 15, 2022 3:57 PM
To: DWRWater.Compliance@tn.gov
Cc: Rebecca Rush
Subject: SQN Water Withdrawal Annual Report 2021
Attachments: SQN Water Withdrawal Annual Report 2021.pdf

Please see attached Water Withdrawal Annual Report for calendar year 2021.

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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