



# SUSQUEHANNA RIVER BASIN COMMISSION

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**Docket No. 20221203**

**Approval Date: December 15, 2022**

## **CONSTELLATION ENERGY GENERATION, LLC FACILITY: THREE MILE ISLAND GENERATING STATION, UNIT 1**

**Surface Water Withdrawal (Peak Day) of up to 44.000 mgd  
from the Susquehanna River; Groundwater Withdrawals (30-Day Averages) of  
0.072 mgd from Well A, 0.044 mgd from Well B, and 0.045 mgd from Well C;  
Combined Groundwater Withdrawal Limit (30-Day Average) of 0.099 mgd  
from Wells A, B, and C; and Consumptive Use (Peak Day) of up to 6.000 mgd  
from Wells A, B, and C, and the Susquehanna River**

### **Section 1. Approval**

After review of the record, including the technical findings of Susquehanna River Basin Commission (Commission) staff, the Commission has determined that no significant adverse impacts are anticipated by the operation of this project as described and conditioned herein, the project is physically feasible, and does not conflict with or adversely affect the Commission's Comprehensive Plan. Accordingly, the Commission hereby approves the renewal and modification of the project described herein in accordance with the conditions set forth below.

The project sponsor maintains and operates a water supply system for a former electric generation facility that includes three groundwater sources (Wells A, B, and C) and one surface water source (Susquehanna River). Based on information provided by the project sponsor, no other sources are operated by the project. The project operates two potable supply wells (OSF Well and Building 48 Well) that are used for potable supply and not subject to Commission regulation.

The Commission previously approved the withdrawal of 0.225 million gallons per day (mgd) from Wells A, B, and C; a surface water withdrawal of up to 122.800 mgd from the Susquehanna River; and the consumptive use of up to 19.200 mgd for electric generation processes under Commission Docket No. 20110610. Because electric generation has been discontinued and the facility is in the process of decommissioning, the facility water demand has decreased. The project sponsor submitted groundwater withdrawal renewal applications requesting approval to withdraw up to 0.099 mgd, combined, from Wells A, B, and C, and indicated that a surface water withdrawal of 44.000 mgd and consumptive use up to 6.000 mgd is necessary to support decommissioning operations. This approval authorizes continued withdrawals and consumptive use at the reduced rates established in this approval.

Commission staff has coordinated with the Pennsylvania Department of Environmental Protection (PADEP) and the Pennsylvania Fish and Boat Commission (PFBC) during review of this project.

## Section 2. Project Information

Information concerning the project sponsor, water use type, and location are set forth in the table below.

Project Information	
<b>Project Sponsor:</b>	Constellation Energy Generation, LLC
<b>Facility:</b>	Three Mile Island Generating Station, Unit 1
<b>Approval Types:</b>	Surface Water Withdrawal, Groundwater Withdrawal, and Consumptive Use
<b>Previous Docket No.:</b>	20110610
<b>Authorized Water Use Purpose:</b>	Decommissioning of Thermoelectric Power Generation Facility and Related Incidental Uses at Unit 1, and Supply of Water to TMI 2 Solutions (Unit 2) Limited up to 0.020 mgd (30-Day Average)
<b>Municipality:</b>	Londonderry Township
<b>County:</b>	Dauphin County
<b>State:</b>	Pennsylvania

## Section 3. Source Information

Information concerning the sources of water from which the withdrawals will be made is set forth in the tables below.

Surface Water Source Information	
<b>Approved Source:</b>	Susquehanna River
<b>Subbasin:</b>	Lower Susquehanna
<b>Watershed Boundary Dataset (WBD):</b>	0205030510 (Susquehanna River)
<b>Withdrawal Location (degrees)*:</b>	Lat: -- Long: --
<b>Site Flow Statistics (cfs)†:</b>	Q7-10 = 2,780; Average Daily Flow = 36,100
<b>Drainage Area (square miles)†:</b>	24,945
<b>Aquatic Resource Class**†:</b>	6
<b>Special Flow Protection Required:</b>	No
cfs – cubic feet per second	
* Specific location information concerning discrete water-related project features has been withheld for security reasons.	
** Refer to Commission Policy No. 2012-01 (Low Flow Protection Policy Related to Withdrawal Approvals).	
† Based on the anticipated point of impact to surface water.	

Groundwater Source Information		
Approved Sources:	Wells A, B, and C	
Subbasin:	Lower Susquehanna	
Watershed Boundary Dataset (WBD):	0205030510 (Susquehanna River)	
Withdrawal Locations (degrees)*:		
Well A	Lat: --	Long: --
Well B	Lat: --	Long: --
Well C	Lat: --	Long: --
Special Flow Protection Required:	No	
* Specific location information concerning discrete water-related project features has been withheld for security reasons.		

#### Section 4. Aquifer Testing

Commission staff determined that sufficient data is available to complete the necessary hydrogeologic evaluation and approved Alternative Hydrogeologic Evaluations (AHEs) for Wells A, B, and C on November 21, 2022. In support of the AHEs, the project sponsor provided the required groundwater availability analysis, historical withdrawal and water level data, the results of historical aquifer testing, professional reports, and analysis and comparison of current operational data to historical testing results. Commission staff determined that the withdrawals from Wells A, B and C at the recommended individual and combined withdrawal rates should not cause permanent loss of aquifer storage, render competing supplies unreliable, or cause adverse impacts to the water resources of the basin.

#### Section 5. Approved Withdrawal Quantities and Limitations

The withdrawals approved hereunder are subject to the quantitative limits and restrictions set forth in the tables below.

Approved Surface Water Withdrawal Quantities and Limitations	
<b>Peak Day Withdrawal Amount (mgd):</b>	44.000 (Not to Exceed)
<b>Maximum Instantaneous Withdrawal Rate (gpm):</b>	34,600 (Not to Exceed)
<b>Flow Protection Type:</b>	No
gpm – gallons per minute	

Approved Groundwater Withdrawal Quantities and Limitations			
	Well A	Well B	Well C
<b>30-Day Average Withdrawal (mgd):</b>	0.072	0.044	0.045
<b>Maximum Instantaneous Withdrawal Rate (gpm) (Not to Exceed):</b>	70	46	40
<b>Peak Day Withdrawal (mgd):</b>	0.101	0.066	0.058
<b>Combined Withdrawal Limit – Wells A, B, and C (30-Day Average) (mgd):</b>	0.099		

The withdrawals are also subject to all other conditions set forth in this docket approval.

## Section 6. Approved Consumptive Use Quantities and Limitations

The consumptive use approved hereunder is subject to the quantitative limits and restrictions set forth in the table below.

Approved Consumptive Use Quantities and Limitations	
<b>Sources for Project Consumptive Use:</b>	1. Wells A, B, and C 2. Susquehanna River
<b>Peak Day Consumptive Use Amount (mgd):</b>	6.000 (Not to Exceed)
<b>Authorized Project Consumptive Uses:</b>	1. Evaporative Cooling 2. Evaporation 3. Related Incidental Uses
<b>Consumptive Use Mitigation Type:</b>	Release of water from surface water storage for flow augmentation (see Special Condition 23)

The consumptive use is also subject to all other conditions set forth in this docket approval.

## Section 7. Grandfathering Determination – Withdrawals and Consumptive Use

All withdrawals and consumptive uses by the project have Commission approval.

## Section 8. Standard Conditions

1. The project sponsor shall comply with all Commission regulations, 18 CFR Parts 801, 806, and 808. This project is subject to the Annual Compliance and Monitoring fee as specified in the Commission's Regulatory Program Fee Schedule, which may be modified over the term of the approval.

2. The project sponsor shall adhere to the metering plan reviewed and approved by Commission staff. Any modifications proposed for the metering plan shall be submitted for review and, if appropriate, approval by Commission staff in accordance with 18 CFR § 806.30. Modifications shall not be made until the project sponsor receives written approval of the amended plan.

3. The project sponsor shall maintain the totalizing meter and other flow and volume measuring devices, accurate to within five (5) percent, so as to provide an accurate record of withdrawals and consumptive use, and certify to the Commission once every five (5) years, or as otherwise requested, the accuracy of all measuring devices and methods to within five (5) percent of actual flow.

4. The project sponsor shall adhere to the groundwater elevation monitoring plan reviewed and approved by Commission staff for the sources listed in Section 3. The project sponsor shall maintain and monitor the accuracy of the measuring devices in accordance with the manufacturer's specifications.

5. The project sponsor shall keep daily records of the project's withdrawals and consumptive use for the sources and consumptive uses listed in Sections 3 and 6, and groundwater elevations for the sources listed in Section 3, and shall report the data to the Commission quarterly, and as otherwise required, in the form and manner as prescribed by Commission staff. Quarterly monitoring reports shall be submitted online and are due within thirty (30) days after the close of the preceding quarter. Any alternative measuring, monitoring, or accounting procedure, and any modifications proposed for the groundwater elevation monitoring plan, shall be submitted for review and approval by Commission staff in accordance with 18 CFR § 806.30. Modifications shall not be made until the project sponsor receives written approval of the amended plan. All data collected and submitted as required under this approval shall be maintained by the project sponsor for the duration of the approval and all subsequent renewals.

6. The project sponsor or any other person representing the project sponsor shall allow authorized employees or agents of the Commission, without advance notice, at any reasonable time and upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas where the project is being constructed, operated, or maintained, or otherwise exercise all investigative powers authorized under 18 CFR § 808.12.

7. In accordance with 18 CFR § 806.30(b)(2), the project sponsor shall report violations of any withdrawal limits and any conditions of this approval within five (5) days of such violation or report loss of measuring or recording capabilities required under 18 CFR § 806.30(a)(1) within five (5) days after any such loss.

8. In accordance with 18 CFR § 806.6, if ownership of the project changes or if the project sponsor undergoes a name change, the project sponsor shall submit application for transfer or reissuance of all approvals to the Commission within ninety (90) days of the change in ownership or project sponsor name change.

9. The project sponsor shall comply with the water conservation requirements specified in 18 CFR § 806.25.

10. This approval is conditioned on the project sponsor maintaining legal access to the withdrawal locations for the duration of the approval.

11. The project sponsor shall register with the appropriate agency all surface water and groundwater sources described herein, as may be required by regulations of the member jurisdiction.

12. If the project sponsor fails to comply with the provisions of the Susquehanna River Basin Compact or any rule, regulation, or order of the Commission, or any term or condition of this docket, the project sponsor is subject to enforcement actions pursuant to 18 CFR Part 808.

13. Commission approval shall not be construed to exempt the project sponsor from obtaining and maintaining all necessary permits and/or approvals required for the project from other federal, state, or local government agencies having jurisdiction over the project. All such

permits and/or approvals shall be obtained prior to the withdrawal of water. The Commission may modify, suspend, or revoke this approval if the project sponsor fails to obtain or maintain such permits and/or approvals.

14. The Commission may at any time reopen any project approval or issue such additional orders, as may be necessary, to mitigate or avoid adverse impacts or otherwise to protect public health, safety, welfare, or the environment, pursuant to 18 CFR § 806.32.

15. Commission approval confers no property rights upon the project sponsor. The securing of all rights necessary and incident to the project sponsor's development and operation of the project shall be the sole and exclusive responsibility of the project sponsor, and this approval shall be subject thereto.

16. This project is approved for inclusion in the Commission's Comprehensive Plan for the Water Resources of the Susquehanna River Basin.

17. The project sponsor is required to apply for and obtain approval prior to any increase in withdrawal or consumptive use that would exceed the amounts listed herein or to add a source used for consumptive use that is not listed in Sections 3 or 6.

18. If the Commission determines that the operation of the project's groundwater withdrawals adversely affect any existing groundwater or surface water withdrawal, the project sponsor shall be required to provide, at its expense, an alternate water supply or other mitigating measure.

## **Section 9. Special Conditions**

19. The date of the last meter certification was March 11, 2021; therefore, the next meter certification is due no later than March 11, 2026. Certification of meter accuracy shall be provided to the Commission no less frequent than once every five (5) years from the date of the last certification.

20. Prior to supplying water for any use not authorized pursuant to Sections 2 or 6 of this approval, the project sponsor shall first submit a minor modification application under 18 CFR § 806.18(c)(4) for such new use to the Executive Director. The project sponsor shall not supply water for such use unless and until such authorization is granted, and pursuant to any supplemental terms and conditions contained in such approval.

21. The Commission previously adopted several resolutions prior to the approval of Commission Docket No. 20110610, including Commission Resolution Nos. 82-5, 83-1, 89-12, 90-02, and 91-2, related to mitigation of consumptive use at the project. All provisions of those resolutions not inconsistent herewith shall remain effective. If the surface water or consumptive use approvals contained herein are rescinded, the attendant resolutions shall be null and void.

22. The project sponsor shall notify the Commission when withdrawals and consumptive use at the facility are, and will remain, below the Commission's regulatory thresholds.

Commission staff will review reported water use and may rescind approvals for the facility, if appropriate.

23. The project's consumptive use is subject to mitigation requirements, as per 18 CFR § 806.22(b). To satisfy the Commission's current mitigation requirements for consumptive use, the project sponsor shall continue to comply with the terms set forth in the contract with the Commission for water supply storage at the Cowanesque Reservoir and make quarterly payments for consumptive use as specified in the agreement.

24. The project sponsor has indicated that incidental supply of water to nearby a facility (TMI 2 Solutions) may occur. This approval authorizes the project sponsor to supply water to the TMI 2 Solutions facility limited up to 0.020 mgd (30-day average). Nothing in this approval shall be construed to suggest approval of consumptive use at the TMI 2 Solutions facility. Consumptive use at the TMI 2 Solutions facility would require separate Commission review and approval prior to exceeding the Commission's regulatory threshold of 0.020 mgd (30-day average) and a minor modification of this docket would be required to change the authorized water use purpose.

## Section 10. Term

25. The Commission previously approved consumptive use, surface water withdrawal and groundwater withdrawal at the facility under Commission Docket No. 20110610. The groundwater withdrawal approvals contained in Commission Docket No. 20110610 remain effective until December 31, 2022, whereupon they shall expire. Conditions and approvals contained within Commission Docket No. 20110610 regarding the surface water withdrawal and consumptive use are hereby superseded, effective December 31, 2022.

26. This approval shall be effective January 1, 2023, and shall remain effective until April 19, 2034. This approval date coincides with other regulatory approval expirations. As specified in 18 CFR § 806.31(e), if the project sponsor submits an application on or before October 19, 2033, the project sponsor may continue operation of this project pursuant to the terms and conditions of this approval until such time as the Commission acts on such application, or until otherwise notified by the Executive Director.

**CERTIFICATION:** I, Jason E. Oyler, Secretary to the Susquehanna River Basin Commission, do hereby certify that the foregoing project docket was approved by the Susquehanna River Basin Commission on December 15, 2022.

Dated: December 16, 2022

  
Jason E. Oyler, Esq.