

SRBC 1999



SUSQUEHANNA RIVER BASIN COMMISSION

1721 North Front Street • Harrisburg, Pennsylvania 17102-2391
Phone (717) 238-0423 • Fax (717) 238-2436
Web <http://www.srbc.net>

Application 19961102 (Revised)

GPU NUCLEAR, INC.

Ground-Water Withdrawal of a 30-day Average of 0.225 mgd from
Wells A, B, and C for Industrial Use, Londonderry Township,
Dauphin County, Pennsylvania

Review Authority

The application was reviewed by Commission staff pursuant to Article 3, Section 3.10 of the Susquehanna River Basin Compact, P.L. 91-575 and Commission Regulation 803.43 relating to ground-water withdrawals. The modification request was received by the Commission on December 3, 1998.

Description

Purpose. The purpose of the application is to request approval for an increase in the previously approved ground-water withdrawal (SRBC Docket 19961102). The water will be used for the same purposes, including station fire service water, replacement to the TMI-1 demineralized water system, bearing lubrication water for the TMI-1 screenhouse pumps, and service water for other buildings and equipment. The project's total use and consumptive use will not be affected by the proposed withdrawal.

Location. The project is located in Londonderry Township, Dauphin County, Pennsylvania.

Project Features. The applicant has requested approval for the withdrawal of 0.225 million gallons per day (mgd) from Wells A, B, and C. Table 1 provides the well construction information for the three wells. All three wells are completed in the Gettysburg Shale formation and are 100 feet apart on the western edge of Three Mile Island in the Susquehanna River.

Table 1 Well Construction

Well Designation	Diameter (inches)	Well Depth (ft)	Casing Length
A	6	400	52
B	6	500	52
C	6	400	52

In 1997 withdrawals from the three project wells replaced water withdrawn from the Susquehanna River and treated for the industrial uses described above. The river water used for



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these purposes was not metered. Consequently, the requested withdrawal of 0.1 mgd from the project wells in docket application 19961102 was based on available water use estimates. These estimates proved to be too low, particularly during peak water demand periods, as subsequent operations have demonstrated. Actual peak monthly water usage from the project wells, as provided in the applicant's monitoring reports during 1997 and 1998, have been two times the approved withdrawal rate.

Peak monthly water requirements have resulted from unplanned automatic shutdowns of the TMI-1 reactor. At these times, new demineralized water must be added to the reactor coolant system to dilute the chemical coolant under a process termed "deboration." Reverse osmosis is used to demineralize the well water, resulting in the use of additional process water. Other peak monthly demand periods include scheduled TMI-1 reactor maintenance and refueling outages. During these periods plant cooling systems must be drained, flushed, and refilled with demineralized water, again under a deboration process. One million gallons of demineralized water storage is normally maintained at all times and refilled as quickly as possible after deboration.

GPU Nuclear is requesting an increase in the 30-day average ground-water withdrawal rate from the project wells to 0.225 mgd to cover high demand periods that are associated with scheduled reactor maintenance and refueling outages, and unplanned plant shutdowns and startups.

Pumping Tests. The applicant is requesting a waiver of a new pumping test with this permit modification request. During October of 1996, two 48-hour pumping tests were conducted for the original application; one for Well A and a second with all three project wells pumping simultaneously. The pumping rate was 75 percent of the currently requested amount, and no impacts were observed at other wells on the island. There are only two other wells on Three Mile Island currently being used. These are potable supply wells owned and operated by GPU at the OSF/NOB and Building 48 which are located 800 and 1,700 feet, respectively, from the project wells. While water levels are not monitored at these wells, operation records for the potable supply wells indicate no loss of production in these wells with the project wells operating at the requested peak monthly rates. The project wells are clustered within a few hundred feet of each other on the western edge of Three Mile Island. They are more than 2,000 feet from any domestic well and separated from them by the Susquehanna River.

Findings

The project is subject to SRBC's ground-water withdrawal approval and reporting requirements as per Commission Regulation 803.43. The consumptive use associated with the applicant's TMI facility was previously approved in Docket 19950302.

Over the past two years, no other wells on Three Mile Island or along the eastern shore of the river have been affected by project well operations at the requested withdrawal rates. Therefore, staff is recommending a waiver of a new pumping test for the project wells under the requested modification.

The project is subject to SRBC water conservation requirements as per Commission Regulation 804.20(b).

Wells A, B, and C are currently individually metered and ground-water reporting data are being submitted to the Commission as required.

The applicant has paid the application fee pursuant to Commission Regulation 803.28 and in accordance with Commission Resolution 98-19. The applicant has also provided all proofs of required notification as called for in Commission Regulation 803.25.

No adverse impacts on other area ground-water withdrawals are anticipated. The project does not conflict with nor adversely affect the Comprehensive Plan, is physically feasible, and does not adversely influence the present or future use and development of the water resources of the basin.

Decision

The project as described above is approved for a withdrawal of a 30-day average of 0.225 MGD from Wells A, B, and C pursuant to Article 3, Section 3.10 of the Compact subject to the following conditions:

a. The applicant shall continue to comply with ground-water reporting requirements as per Commission Regulation 803.43. The required reporting data shall be submitted to the Commission annually.

b. The applicant shall comply with SRBC water conservation requirements as per Commission Regulation 804.20(b).

c. If the Commission determines that operation of the proposed ground-water withdrawal adversely affects any existing ground-water or surface-water withdrawal, the applicant shall be required to provide, at its expense, an alternate water supply or other mitigating measures.

d. This action shall not be construed to exempt the applicant from obtaining all necessary permits and/or approvals required for the project from other federal, state or local government agencies having jurisdiction over the project. The Commission reserves the right to modify, suspend or revoke this action if the applicant fails to obtain or maintain such approvals.

e. If the project fails to comply with any term or condition of this docket, the Commission may suspend, modify or revoke its approval of same. Upon written notice by the Commission, the project applicant shall have thirty (30) days to correct such non-compliance, unless an alternate period is specified in the notice. Failure to comply within thirty (30) days, or within the alternate period identified in the notice, shall result in a ninety (90) day suspension of approval of this docket. If the project applicant fails to address the non-compliance to the satisfaction of the Commission within the suspension period, this approval may be revoked. Nothing herein shall preclude the Commission from exercising its authority to immediately

modify, suspend or revoke this approval where it determines exigent circumstances warrant such action.

f. The Commission reserves the right, based upon new findings, to reopen any project docket and make additional orders that may be necessary to mitigate or avoid adverse impacts or otherwise to protect the public health, safety, welfare or the environment. Commission approval confers no property rights upon project sponsors.

g. This approval is effective until November 26, 2021. In order to continue operation beyond this time, the applicant shall submit a renewal application by May 26, 2021.

h. The applicant has a period of three years from the date of this approval to initiate the project or such approval will automatically expire, unless an extension is requested by the applicant and approved by the Commission. Likewise, if the project is discontinued for such a time and under such circumstances that an abandonment of the project may be reasonably inferred, the Commission may rescind the approval of the project unless a renewal is requested by the applicant and approved by the Commission.

By the Commission:

Dated: January 14, 1999

John T. Hicks
Chairman