

DOCKET NO. D-1987-066-6

DELAWARE RIVER BASIN COMMISSION

Special Protection Waters

Panther Creek Power Operating, LLC

Panther Creek Energy Facility

Groundwater Withdrawal and Subsidiary Water Allocation Renewal

Nesquehoning Borough, Carbon County, Pennsylvania

PROCEEDINGS

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) by Panther Creek Power Operating, LLC (PCPO or docket holder) on July 5, 2012 (Application), for review of the existing Panther Creek Energy Facility (PCEF) and the subsidiary water allocation provided by Nesquehoning Borough Authority (NBA) to the PCEF.

The Application was reviewed for approval under Section 3.8 of the *Delaware River Basin Compact*. The Carbon County Office of Planning and Development has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on September 12, 2012.

DESCRIPTION

Purpose. – The purpose of this docket is to renew the approval of a groundwater (mine drainage water) withdrawal and a subsidiary water allocation provided by NBA for use at the PCEF for industrial process and cooling purposes. The groundwater (mine drainage water) allocation of up to 69.2 million gallons per month (mgm) (2.23 mgd) from the Lausanne Tunnel and the subsidiary allocation of surface water provided by NBA of up to 36 million gallons per 30 days (mg/30 days) (1.2 mgd based on a 30-day average) from the Fourth Hollow Reservoir represents no increase from the previous docket. Additionally, this docket incorporates by reference, two electric transmission line crossings of the Schuylkill River, which were previously approved by DRBC Dockets Nos. D-88-46 and D-91-52.

Location. – The PCEF and water withdrawal are located in Nesquehoning Borough, Carbon County, Pennsylvania. Water is pumped from the Lausanne Tunnel which drains mine pool overflow from the Lansford Mine pool to the Nesquehoning Creek near its confluence with the Lehigh River. The Lausanne Tunnel mine pool overflow is accessed through a well drilled approximately 40 feet deep that intercepts the tunnel drainage about 500 feet upstream of the Tunnel’s exit.

The docket holder also purchases water from NBA’s Fourth Hollow Reservoir. The reservoir is situated on Broad Run approximately one mile north of Nesquehoning Creek and two miles west of the Nesquehoning Borough town center in the Lehigh River watershed.

Specific location information has been withheld for security reasons.

Area served. –The project water withdrawal and subsidiary water supply from NBA will continue to serve only the PCPO cogeneration facility.

Physical features. –

a. Design criteria. --The PCEF project utilizes a circulating fluidized bed boiler to burn anthracite coal breaker refuse which is piled on nearby areas; the facility is designed to consume the breaker refuse at a rate of 80 tons per hour and generates 800,000 pounds of steam per hour. The facility generates 84 megawatts of electricity which is sold to Metropolitan Edison Company (now doing business as GPU Energy). No alternate uses for steam are currently proposed, but PCPO is exploring this option. Water is used at the facility for cooling purposes, industrial processes and fire suppression. The average and peak water demands of the facility are 1.15 mgd (35.65 mgm) and 2.23 mgd (69.13 mgm). The docket holder expects no increase in the 10-year water demand of the facility.

NBA provides the docket holder with up to 1.2 mgd (based on a 30-day average) from its Fourth Hollow Reservoir located on Broad Run. Construction of the NBA dam and reservoir was approved in DRBC Docket No. D-69-2 CP on February 26, 1969. The reservoir provides untreated surface water exclusively for use by PCPO. Previously, NBA had utilized the reservoir for its domestic water supply source, but has since constructed wells for this purpose as a more economical alternative to constructing water filtration facilities. PCPO’s alternative water source (the Lausanne Tunnel mine pool overflow) requires pumping over 7 miles and extensive pre-treatment including clarification, softening, filtration and pH adjustment of the raw mine water for cooling and boiler make-up. The use of Fourth Hollow Reservoir, which is closer to the cogeneration facility, saves PCPO energy and treatment costs while providing income to the municipality. Because the cleaner NBA water allows for efficient recycling, less water is needed to serve PCPO’s needs.

PCPO has connected an existing water main which extends from the 26 million gallon capacity Fourth Hollow Reservoir, to a pipeline that provides water from the Lausanne Tunnel mine pool overflow, to the PCPO facility. The flow from the reservoir can be shut off so that the

water supply from the Lausanne Tunnel mine pool overflow can be utilized when water from the Fourth Hollow Reservoir is not available.

NBA was issued a permit for withdrawal from Fourth Hollow Reservoir by the Pennsylvania Department of Health (Permit No. 1368501) in 1969; a reallocation Permit No. WA13-627B was issued by the Pennsylvania Department of Environmental Protection (PADEP) on October 30, 1998 which includes provision for a new operation plan for releases from the reservoir to maximize its use for both the PCPO project and fisheries. By letter of November 1, 1999, the Pennsylvania Fish & Boat Commission (PFBC) accepted the proposed plan.

PADEP Water Allocation Permit No. WA 13-627B allows NBA to withdrawal up to 1.2 mgd of water, based on a 30-day average, as a seasonal taking, when available, from the Fourth Hollow Reservoir for use only at the PCEF. The withdrawal of water may only occur when reservoir water levels at the dam are above an elevation of 1,213.5 feet (4.0 feet below the spillway). This level corresponds to 20 million gallons of storage which is 77 percent of the total reservoir capacity. When the water level reaches an elevation of 1,213.5 feet NBA discontinues the supply of water to the PCEF.

NBA is required to provide conservation releases. When the reservoir is between capacity and 4.0 feet below the spillway a conservation release of 0.16 mgd must be maintained. When the water level reaches 4.0 feet below the spillway, the withdrawal ceases and the passby flow is increased to 0.6 mgd until the reservoir fills completely. When the reservoir storage remaining drops to 13 million gallons (50 percent of capacity), the releases are reduced to 0.4 mgd to reduce excessive drawdown in the reservoir during infrequent severe drought conditions.

When water from the reservoir is not available, PCPO withdraws up to 2.23 mgd (69.2 mgm) from the Lausanne Tunnel mine pool overflow. The Lausanne Tunnel is a drainage facility (approximately 7,000 feet long, 9 feet wide and 6 feet high) that conveys water from the mine pool overflow to the Lehigh River. This water will continue to be pre-treated to remove minerals for use in a cooling tower.

Consumptive use is 100 percent of the total water use with approximately 85 percent of the raw water lost to evaporation, and approximately 0.26 mgd (15 percent) consumed through use to stabilize ash and control fugitive airborne emissions from material handling operations. Ash is temporarily stored in silos. A pugmill beneath the silos stabilizes the ash through mixture with water. Any leakage from the pugmill is collected by the drainage system and recycled to an oil-water separator and the water treatment facilities.

b. Facilities. –The project facilities consist of a raw materials screening plant (raw materials hauled by truck), a circulating fluidized bed boiler with a steam turbine and an electric generator, an air pollution control device, raw water pretreatment units, an oil-water

separator, a neutralization basin, a cooling tower, and ash processing facilities. An impoundment is provided for culm stockpile runoff.

The Fourth Hollow Reservoir is connected to the PCPO facility's 14-inch diameter force main with approximately 1,000 linear feet of 10-inch diameter iron pipe. The connection is made in a pre-cast concrete valve pit and includes isolation/shutoff valves and back-flow check valves on both the 10-inch diameter pipe from the reservoir and the 14-inch diameter pipe from the Lausanne Tunnel source to enable use of either supply as required by operating conditions.

The diversion from Lausanne Tunnel was approved via Docket No. D-87-66 (Revision 2), approved June 27, 1990 and consists of a 14-inch diameter polyvinyl chloride (PVC) pipeline connecting the pumping facilities at Lausanne Tunnel to the PCPO facility approximately 7 miles east of the intake. Raw water from the Lausanne Tunnel intake is considered acid mine drainage. The docket holder applies extensive treatment including clarification, softening, filtration and pH adjustment in order to utilize it for its purposes.

There are meters on both the water line from Fourth Hollow Reservoir and the 14-inch diameter PVC supply line to PCPO and each will continue to be monitored daily; any discrepancy is investigated for leakage.

The project facilities are above the 100-year flood elevation.

The docket holder currently reports water use and pays surface water fees to the Commission on a quarterly basis for water supplied by NBA's Forth Hollow Reservoir.

The docket holder has constructed 2 electric transmission line crossings of the Schuylkill River. These projects are described in detail in DRBC Dockets Nos. D-88-46 and D-91-52, which were approved by the Commission on September 28, 1988 and December 11, 1991. The crossings extend from Port Clinton Borough, Schuylkill County across the Schuylkill River to Tilden Township, Berks County, Pennsylvania. The second transmission line extends from the Borough of Hamburg to Tilden Township, both in Berks County, Pennsylvania. The electric lines transmit power from the PCEF.

c. Other. - NBA also supplies an average of 0.004 mgd of water from its municipal wells to PCPO for potable use and 0.04 mgd for industrial process. NBA's groundwater withdrawal is described in DRBC Docket No. D-94-47 CP, approved on March 9, 1999.

Sanitary wastewater is conveyed to the NBA sewage treatment plant most recently approved by DRBC Docket No. D-90-107 CP on February 20, 1991.

The facility does not discharge any wastewater. Process wastewater, which is applied to ash, is used as part of the reclamation of the nearby refuse banks. Cooling tower blowdown will continue to be utilized for ash stabilization and dust control. A groundwater monitoring program

is required by the PADEP Bureau of Mining, Office of Surface Mining to periodically determine ground water quality up-gradient and down-gradient from the proposed ash reclamation areas.

FINDINGS

On August 2, 2012, the Executive Director approved the transfer of DRBC Dockets Nos. D-87-66 (Revision 2) RENEWAL, D-88-46, and D-91-52 from Panther Creek Partners to PCPO.

Special Protection Waters

In 1992, the DRBC adopted Special Protection Waters requirements, as part of the DRBC *Water Quality Regulations* (WQR), designed to protect existing high water quality in applicable areas of the Delaware River Basin. One hundred twenty miles of the Delaware River from Hancock, New York downstream to the Delaware Water Gap were classified by the DRBC as SPW. This stretch includes the sections of the river federally designated as "Wild and Scenic" in 1978 -- the Upper Delaware Scenic and Recreational River and the Delaware Water Gap National Recreation Area -- as well as an eight-mile reach between Milrift and Milford, Pennsylvania which is not federally designated. The SPW regulations apply to this 120-mile stretch of the river and its drainage area.

On July 16, 2008, the DRBC approved amendments to its *Water Quality Regulations* that provide increased protection for waters that the Commission classifies as Special Protection Waters. The portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area was approved for Special Protection Waters designation and clarity on definitions and terms were updated for the entire program.

Article 3.10.3A.2.e.1). and 2). of the *Water Quality Regulations, Administrative Manual - Part III*, states that projects subject to review under Section 3.8 of the Compact that are located in the drainage area of Special Protection Waters must submit for approval a Non-Point Source Pollution Control Plan that controls the new or increased non-point source loads generated within the portion of the docket holder's service area which is also located within the drainage area of Special Protection Waters. The docket holder's water supplies are located within in the drainage area to the Special Protection Waters. Since this project does not entail additional construction and expansion of facilities/service area and there are not any new or increased non-point source loads associated with this approval, the non-point source pollution control plan requirement is not applicable at this time. Accordingly, Special Condition C.II.w. has been included in the Decision section of this docket.

The estimated average annual recharge rate of the mine pools exceeds the maximum estimated project withdrawal rate, therefore, evaporation and drift losses should not deplete groundwater supply. The Lansford Mine pool has an available storage of 1.2 billion gallons of water. The former docket holder's geohydraulic engineers have demonstrated that the withdrawal of water from the Lausanne Tunnel mine pool overflow for the proposed project will not affect the natural fluctuations in the Lansford Mine pool water level, nor will it affect any groundwater withdrawals for private or municipal use.

The original approval for the PCPO facility preceded DRBC's policy for non-utility generators to make-up their consumptive water use during drought conditions. As no expansion of power output is proposed, PCPO will not be subject to consumptive use makeup requirements during drought conditions. However, any increase in consumptive water use, in order to serve the expansion of power facilities, will be subject to DRBC consumptive water use make-up requirements.

Section 2.3.5.1 C. of the Commission's *Rules of Practice and Procedure (RPP)*, requires industrial and commercial water withdrawals in excess of one million gallons per day to develop a contingency plan including emergency conservation measures to be instituted in the event of a Commission declared drought or other water shortage. Resolution No. 83-14 amended the Commission's *Water Code* (Section 2.1.4) to include the conservation goal of a 15 percent reduction in depletive use during drought conditions. Hereafter referred to as drought management and contingency plans (DMCPs), DMCPs must contain the following: source of water supply; the average daily and monthly peak water withdrawal; average daily and peak monthly consumptive use (difference between quantity withdrawn and quantity returned to the ground or surface waters of the basin); description of recycling and conservation measures; point of discharge (where water is returned or discharged); types of products produced; normal employment levels (numbers); and estimated employment (numbers) and economic impact for curtailment of water usage for the following levels of curtailment: 10%; 25%; 35%; 50% and 100%.

An updated DMCP shall be submitted to the Executive Director within 6 months after the date of docket approval. The Executive Director shall review the DMCP and either require modifications or provide approval in writing if the DMCP is found to be in accordance with the Commission requirements. The docket holder shall implement the DMCP upon direction by the Executive Director. (see Condition II.1.).

Project withdrawals are used for the purpose of industrial water supply and the consumptive use is estimated to be 100 percent of the total water use.

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

I. Effective on the approval date for Docket No. D-1987-066-6 below, Docket No. D-87-66 (Revision 2) RENEWAL is terminated and replaced by Docket No. D-1987-066-6.

II. The project and appurtenant facilities as described in the Section A "Physical features" are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP. The docket holder shall register with and report to the PADEP all surface and groundwater sources described in this docket in accordance with the Pennsylvania Regulations (Title 25 - Environmental Protection, [25 PA. CODE CH. 110], Water Resources Planning).

b. The facility and operational records shall be available at all times for inspection by the DRBC.

c. During any month, the combined withdrawal from all sources shall not exceed 69.2 million gallons. No source shall be used above the maximum instantaneous rate and monthly allocation as indicated below:

SOURCE	MAXIMUM INSTANTANEOUS RATE	MONTHLY ALLOCATION
Lausanne Tunnel	2.23 mgd	69.2 mg
NBA Forth Hollow Reservoir	1.2 mgd*	36 mg/30 days

*Daily allocation is based on a 30-day average in accordance with Condition No. 13 of PADEP Water Allocation Permit No. WA 13-627B added by Modification Order No. 2 dated, February 28, 2001.

d. When the Fourth Hollow Reservoir water level is at an elevation of 1,213.5 feet above mean sea level (4.0 feet below the spillway) or lower the docket holder shall discontinue the use of the NBA reservoir supply and use only the Lausanne Tunnel source.

e. The docket holder shall pay for surface water use in accordance with the provisions of Resolution No. 74-6, as amended.

f. The project withdrawals shall be metered with an automatic continuous recording device that measures to within 5 percent of actual flow. An exception to the 5 percent performance standard, but no greater than 10 percent, may be granted if maintenance of the 5 percent performance is not technically feasible or economically practicable. A record of daily withdrawals shall be maintained, and monthly totals shall be reported to the PADEP annually and shall be available at any time to the Commission if requested by the Executive Director.

g. In accordance with DRBC Resolutions No. 87-6 (Revised) and No. 2009-1, the docket holder shall continue to implement to the satisfaction of the PADEP, the systematic program to monitor and control leakage within the water supply system. The program shall at a minimum include: periodic surveys to monitor leakage, enumeration-revenue water and determine the current status of system infrastructure; recommendations to monitor and control

leakage; and a schedule for the implementation of such recommendations. The docket holder shall proceed expeditiously to correct leakages and unnecessary usage identified by the program

h. The docket holder shall implement to the satisfaction of the PADEP, the continuous program to encourage water conservation in all types of use within the facilities served by this docket approval. The docket holder will report to the PADEP on the actions taken pursuant to this program and the impact of those actions as requested by the PADEP.

i. No water service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2)..

j. Sound practices of excavation, backfill, and reseeded shall be followed to minimize erosion and deposition of sediment in streams.

k. The docket holder shall continue to implement its Water Conservation Plan as approved by PADEP, and shall report to the PADEP on actions taken pursuant to this program and the impact of those actions as requested by the PADEP.

l. The docket holder shall prepare and submit a DMCP to the Commission within 6 months (March 12, 2013) of docket approval. The Executive Director shall review the DMCP and either require modifications or provide approval in writing if the DMCP is found to be in accordance with the Commission requirements. The docket holder shall implement the DMCP upon direction by the Executive Director.

m. The docket holder shall implement to the satisfaction of the PADEP, a drought or other water supply emergency plan.

n. Sound practices of excavation, backfill and reseeded shall be followed to minimize erosion and deposition of sediment in streams from any new facilities or repair related construction.

o. No new water service connections shall be made to premises connected to sewerage systems which are not in compliance with all applicable effluent limits contained in State permits and the *Water Quality Regulations* of the Commission.

p. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

q. The docket holder is permitted to provide the water approved in this docket to the areas included in Section A.3. Area Served of this docket. Any expansion beyond those included in Section A.3. Area Served is subject to DRBC review and approval in accordance with Section 3.8 of the *Compact*.

r. Unless an extension is requested and approved by the Commission in advance, in accordance with paragraph 11 of the Commission's Project Review Fee schedule (Resolution No. 2009-2), the docket holder is responsible for timely submittal of a docket renewal application on the appropriate DRBC application form at least 12 months in advance of the docket expiration date set forth below. The docket holder will be subject to late charges in the event of untimely submittal of its renewal application, whether or not DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below (or the later date established by an extension that has been timely requested and approved), the terms and conditions of the current docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

s. The issuance of this docket approval shall not create any private or proprietary rights in the water of the Basin, and the Commission reserves the rights to amend, alter or rescind any actions taken hereunder in order to insure the proper control, use and management of the water resources of the Basin.

t. If the monitoring required herein, or any other data or information demonstrates that the operation of this project significantly affects or interferes with any domestic or other existing uses of ground or surface water, or if the docket holder receives a complaint by any existing ground or surface water users within the zone of influence of the withdrawal, the docket holder shall immediately notify the Executive Director of any complaints by any ground or surface users within the zone of influence of the withdrawal, and unless excused by the Executive Director, shall investigate such complaints. The docket holder should direct phone call notifications of potential well or surface water interference or complaints of interference to the DRBC Project Review Section at 609-883-9500, extension 216. Oral notification must always be followed up in writing directed to the Executive Director. In addition, the docket holder shall provide written notification to all potentially impacted users of wells or surface water supplies of the docket holder's responsibilities under this condition. Any ground or surface water user which is substantially adversely affected, rendered dry or otherwise diminished as a result of the docket holder's project withdrawal, shall be repaired, replaced or otherwise mitigated at the expense of the docket holder. A report of investigation and/or mitigation plan prepared by a hydrologist shall be submitted to the Executive Director as soon as practicable. The Executive Director shall make the final determination regarding the validity of such complaints, the scope or sufficiency of such investigations, and the extent of appropriate mitigation measures, if required.

u. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

v. For the duration of any drought emergency declared by either Pennsylvania or the Commission, water service or use by the docket holder pursuant to this approval shall be subject to the prohibition of those nonessential uses specified by the Governor of Pennsylvania, the Pennsylvania Emergency Management Council, PADEP, or the Commonwealth Drought

Coordinator to the extent that they may be applicable, and to any other emergency resolutions or orders adopted hereafter by the Commission.

w. Prior to allowing connections from any new service areas or any new developments, the docket holder shall either submit and have approved by the Executive Director of the DRBC a Non-Point Source Pollution Control Plan (NPSPCP) in accordance with Section 3.10.3.A.2.e, or receive written confirmation from the Executive Director of the DRBC that the new service area is in compliance with a DRBC approved NPSPCP.

x. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the *Rules of Practice and Procedure*. In accordance with Section 15.1(p) of the Delaware River Basin Compact, cases and controversies arising under the Compact are reviewable in the United States district courts.

y. The applicant shall make use of wastewater in such a manner as to avoid injury or damage to fish or wildlife and shall avoid any injury to public or private property. The applicant shall assume all responsibility for any claims arising from the proposed wastewater uses and shall indemnify and hold harmless the Commission against and from any and all claims made by or on behalf of any person arising from any uses of wastewater made by the applicant.

z. If the docket holder expands its facility beyond 84 megawatts as a result of modifications to include an increase in water withdrawal and consumptive use, the applicant shall provide makeup water from a suitable source that is equal to the additional amount consumed.

BY THE COMMISSION

APPROVAL DATE: September 12, 2012

EXPIRATION DATE: September 12, 2022