

DOCKET NO. D-2009-003 CP-2

DELAWARE RIVER BASIN COMMISSION

**Naval Surface Warfare Center Philadelphia Division
Surface Water Withdrawal
City of Philadelphia, Philadelphia County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted by Naval Surface Warfare Center Philadelphia Division (NSWCPD or docket holder) to the Delaware River Basin Commission (DRBC or Commission) on October 2, 2015 for renewal of an allocation of surface water and review of a surface water withdrawal project (Application).

The Application was reviewed for continued inclusion in the Comprehensive Plan and for approval under Section 3.8 of the *Delaware River Basin Compact*. The Philadelphia County Planning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on February 15, 2017.

A. DESCRIPTION

1. Purpose. The purpose of this project is to approve an increase in withdrawal allocation from 1,147.25 million gallons per month (mgm) to 2,263.248 mgm of surface water from two (2) existing intakes Bldg 633 Non-Contact Cooling Water (NCCW) 001 and Bldg 824 NCCW 001 located in the Navy Reserve Basin, which is connected by a channel linked to the Schuylkill River. The surface water is used for the purpose of once-through non-contact cooling and the operation of the systems for the land-based test sites of ship systems associated with the Naval Surface Warfare Center Philadelphia Division.

2. Location. The project's two existing NSWCPD intakes are located in the Schuylkill River Watershed in the City of Philadelphia, Philadelphia County, Pennsylvania. The Delaware River near the project site is designated by the Pennsylvania Department of Environmental Protection (PADEP) as Warm Water Fishes (WWF) and Migratory Fishes (MF).

Specific location information has been withheld for security reasons.

3. Area Served. The project intakes supply non-contact cooling water and water for the operation of the systems for the land-based test sites of ship systems associated with the Naval Surface Warfare Center Philadelphia Division. For the purpose of defining Area Served, the

Application is incorporated herein by reference consistent with conditions contained in the DECISION section of this docket.

4. Physical features.

a. Design criteria. The project intakes currently supply non-contact cooling water and water for the operation of the systems for the land-based test sites of ship systems associated with the Naval Surface Warfare Center Philadelphia Division with an existing average and maximum water demand of 23.786 million gallons per day (mgd) and 28.052 mgd, respectively. The NSWCPD projects the 10-year average and maximum water demand to increase to 73.008 mgd and 73.008 mgd, respectively. The allocation of 2,263.248 mgm should be sufficient to meet the future demands of NSWCPD.

The cooling water system includes a once-through cooling loop that supplies non-contact cooling water to test sites located within Building 633 and Building 824, as well as boiler condensers located in Building 520. There are two (2) cooling loops associated with the system: the Building 633/520 cooling loop and the Building 824 cooling loop. Non-contact cooling water used at Buildings 633/520 is returned untreated to the Navy Reserve Basin through Outfall 001. Non-contact cooling water used at Building 824 discharges untreated to the City of Philadelphia sanitary sewer system.

Non-contact cooling water is supplied to the Building 633/520 cooling loop by three (3) pumps, each rated at 50,000 gpm, located at the intake. However, only two (2) of the pumps can be used at once at a combined operational capacity of 75,000 gpm. This gives a 24-hour withdrawal capacity of approximately 108 mgd. Draft DRBC Docket No. D-2009-004 CP-2 is also scheduled for hearing at the February 15, 2017 Commission hearing, which approves the NSWCPD Building 633/520 cooling loop discharge up to 72.0 mgd. Since the discharge is limited to 72.0 mgd, this docket (D-2009-003 CP-2) limits the surface water withdrawal for the Building 633/520 cooling loop to 72.0 mgd.

Non-contact cooling water is supplied to the Building 824 cooling loop by one (1) 700 gpm rated pump located at the intake. The Building 824 cooling loop system withdraws a maximum of 1.008 mgd from the Navy Reserve Basin but discharges to the City of Philadelphia sanitary sewer system. The total withdrawal from the two (2) cooling loop intakes is limited to 73.008 mgd.

b. Facilities. The existing project surface water intakes have the following characteristics:

INTAKE NO.	WITHDRAWAL WATER BODY	PUMP CAPACITY (GPM)	YEAR CONSTRUCTED
Bldg 633 NCCW 001	Navy Reserve Basin	75,000	1943
Bldg 824 NCCW 001	Navy Reserve Basin	700	1943

Water withdrawals are currently estimated using pump capacity and elapsed hours of operation with a thermal load.

Surface water from the project intakes is not treated prior to or after use.

The water system is not presently interconnected with any other distribution system.

c. Other. The non-contact cooling water from Building 633 cooling loop is discharged untreated back to the Navy Reserve Basin. The project discharge to the Navy Reserve Basin is described in detail in DRBC Docket No. D-2009-004 CP-1 which was approved on March 2, 2011. The docket holder's discharge is described in draft Docket No. D-2009-004 CP-2, which is scheduled for hearing at the February 15, 2017 Commission hearing. The PADEP issued its most recent NPDES Permit No. PA0036447A1 on August 5, 2014 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the proposed project.

The Building 824 cooling loop system discharges to the City of Philadelphia Southeast WWTP most recently approved by DRBC Docket No. D-1970-054 CP-1 (Revised) on June 23, 1982. The PADEP issued its most recent NPDES Permit No. PA0026662 on August 15, 2007 for this treatment facility. A renewal application has been submitted for this permit and is currently pending. The treatment facility has adequate capacity to receive wastewater from the proposed project.

d. Cost. There is no associated cost with this project.

e. Relationship to the Comprehensive Plan. The project was previously included in the Comprehensive Plan by the Commission in Docket No. D-2009-003 CP-1 issued on September 15, 2010. Issuance of this docket will continue the surface water withdrawal project in the Comprehensive Plan.

B. FINDINGS

Surface Water Charges

DRBC Entitlement No. 393 entitles NSWC to withdrawal 3,348 mgm from the Navy Reserve Basin without surface water charges. The docket holder shall pay for surface water use in excess of 3,348 mgm from the water diversion in accordance with the provisions of Resolution No. 74-6, as amended as described in Condition C.II.e. in the DECISION section.

The project is designed to conform to the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

The DRBC estimates that the project withdrawals, used for the purpose of non-contact cooling and operations, result in negligible consumptive use. The DRBC definition of consumptive use is defined in Article 5.5.1.D of the *Administrative Manual – Part III – Basin Regulations – Water Supply Charges*.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

C. DECISION

I. Effective on the approval date for Docket No. D-2009-003 CP-2 below:

- a. The project described in Docket No. D-2009-003 CP-1 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-2009-003 CP-2; and
- b. Docket No. D-2009-003 CP-1 is terminated and replaced by Docket No. D-2009-003 CP-2.
- c. The project and the appurtenant facilities described in the Section A “Physical features” shall be added to the Comprehensive Plan.

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 and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission’s.
- b. The surface water intakes and operational records shall be available at all times for inspection by the DRBC.

c. The surface water intakes shall be operated at all times to comply with the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

d. During any month, the combined withdrawal from all surface water intakes sources shall not exceed 2,263.248 million gallons. No surface water intakes shall be pumped above the maximum instantaneous rate and monthly allocation as indicated below:

INTAKE NO.	MAXIMUM INSTANTANEOUS RATE (GPM)	MONTHLY ALLOCATION (MGM)
Bldg 633 NCCW 001	75,000	2,232.0
Bldg 824 NCCW 001	700	31.248

e. The docket holder shall pay for surface water use in excess of 3,348 mgm in accordance with *Administrative Manual – Part III Basin Regulations – Water Supply Charges*.

f. Each new water service connection shall include a water meter in accordance with the DRBC’s Resolution No. 87-7 (Revised).

g. 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).

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

i. 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.

j. 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.

k. 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*.

l. 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 6 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.

m. 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.

n. If the monitoring required herein or any other relevant data or information demonstrates that the operation of this project is interfering with or otherwise impairing existing uses of ground or surface water, or if the permit holder receives a complaint from an existing ground or surface water user within the zone of influence of the withdrawal alleging such interference or impairment, the permit holder shall immediately notify the Executive Director, and unless excused by the Executive Director, shall investigate the demonstrated or alleged impacts. For purposes of this condition, notification shall mean either (a) electronic transmittal of written notice to the Executive Director via email (using addresses posted on the DRBC website); or (b) written notice to the Executive Director and a telephone call to the Project Review Section at 609-883-9500, ext. 216. (Oral notification must always be accompanied by immediate written notification directed to the Executive Director.) In addition, the permit holder shall provide written notice to all potentially affected water users of the permit holder's responsibilities under this condition. **Any well or surface water supply that is impaired as a result of the permit holder's project withdrawal shall be repaired, replaced or mitigated at the permit holder's expense.** The scope of the options to consider for repair, replacement and/or mitigation shall not be limited solely to those that are owned, operated, or controlled by the project sponsor. An investigation report and/or mitigation plan prepared and certified by a licensed professional engineer and/or a licensed professional geologist shall be submitted to the Executive Director as soon as practicable following notice of the demonstrated or alleged impairment consistent with this paragraph. The Executive Director shall make the final determination regarding the scope and sufficiency of the investigation and the extent of any mitigation measures that may be required. Where ground and surface waters are rendered unavailable, unusable, or unsuitable for the pre-existing use, the Executive Director may direct the permit holder to take interim actions to mitigate such impacts, pending completion of the investigative report and any long-term repair, replacement or mitigation.

o. 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.

p. 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.

BY THE COMMISSION

APPROVAL DATE: March 15, 2017

EXPIRATION DATE: March 15, 2027