

DOCKET NO. D-1996-052-2

DELAWARE RIVER BASIN COMMISSION

**Phillips 66
Trainer Refinery
Industrial Surface Water Withdrawal
Borough of Trainer, Delaware County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted by ConocoPhillips Company (CP) to the Delaware River Basin Commission (DRBC or Commission) on April 12, 2012 for a continued allocation of surface water and review of an existing surface water withdrawal project (Application). The facility's previous docket (DRBC Docket No. D-96-52) expired on April 30, 2007. On or about May 1, 2012 the ownership of the Trainer Refinery will pass to Phillips 66 (Phillips 66 or docket holder). The withdrawal facilities are existing and used for industrial purposes and as such, are not subject to prior allocation by the Pennsylvania Department of Environmental Protection (PADEP).

The Application was reviewed for approval under Section 3.8 of the *Delaware River Basin Compact*. The Delaware County Planning Department has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on May 10, 2012.

A. DESCRIPTION

1. **Purpose.** The purpose of this docket is to approve a withdrawal of up to 4,701.667 million gallons per month (mgm) of surface water from the docket holders existing Delaware River surface water intake and approve a transfer of ownership of the Trainer Refinery from CP to Phillips 66. The surface water allocation provided in this docket is the same allocation approved in the previous docket.

2. **Location.** The Trainer refinery is located along the west bank of the Delaware River in the Borough of Trainer, Delaware County, Pennsylvania and is bordered by Marcus Hook and Stoney Creeks. The project intake is located at River Mile 80.64 in Delaware River Water Quality Zone 4.

3. **Area Served.** The project intake will continue to serve only the docket holder's Trainer Refinery as outlined on a map entitled "Site Location Map" submitted with the Application. 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.**

Presently, the refinery is idle and water is only being used for maintenance operations. Due to the curtailment of operations, the present average and maximum water use at the facility are 2.730 million gallons per day (mgd) (84.63 mgm) and 3.930 mgd (121.83 mgm), respectively. The docket holder has projected a 10-year future average and maximum water usage of 107.930 mgd (3,345.83 mgm) and 151.700 mgd (4,702.7 mgm), respectively.

When in operation, approximately 99 percent of the water withdrawn from the Delaware River intake is used for once-through non-contact cooling purposes and, after its cooling period, the water is cycled through two guard basins and discharged back to the Delaware River Basin via outfalls on the tidal reaches of Stoney and Marcus Hook Creeks. The guard basins provide temporary storage for settling and for handling storm water runoff and spills, and also allow for some retention time to interrupt the discharge and to handle and contain any plant site spills. A small percentage of the water, totaling approximately 0.93 mgd, is used for industrial processes including pump cooling (0.43 mgd) and service water (0.5 mgd). This portion of the flow is treated at the existing onsite industrial wastewater treatment plant (IWTP) prior to discharge to Marcus Hook Creek.

The docket holder also purchases water from the Chester Water Authority for use as boiler water, refinery process water, cooling, and potable supply. After various process uses, the majority of water from this source is treated via the Refinery's IWTP and discharged to the Delaware River. Sanitary wastewater is conveyed to the Delaware County Regional Authority (DELCORA) WWTP, the local publicly-owned treatment facility. In 1995, a total of 1,340 million gallons of water (average of 3.671 mgd) was purchased from Chester Water Authority. All of Chester Water Authority's water is imported into the basin from the Susquehanna River basin.

Consumptive water loss is primarily due to evaporation in the cooling process. Based on quarterly water usage data submitted by the facility over the last 9 years, consumptive water loss ranged from 0.81 percent to 1.79 percent of the total water use (average of 1.23 percent).

b. **Facilities.** The intake facilities consist of a pump house near the west bank of the Delaware River which houses eight circulating water pumps. A bulkheaded channel extends approximately 250 feet into the Delaware River from the rip-rap covered river bank. From the

rip-rapped river bank to the pump house, the flume extends another 415 feet. Two removable screens are located in sequence in the channel to collect debris. The screens are constructed of 1/8-inch woven wire; the upstream screen has 3/4-inch square mesh openings, and the downstream screen has 1/2-inch square mesh openings. The 19-foot wide intake channel is constructed of rolled steel sheet piling. Water depth in the channel is approximately 15.5 feet at mean tide. The average open channel intake velocity is less than 0.5 feet per second. Water depth at the intake is approximately 20.5 feet. The intake opening at the end of the channel is a steel sheet pile bulkhead covered with a fixed two-inch steel grating which covers the inlet to the channel. The screens are periodically cleaned manually by lifting and backwashing.

The existing project intake has the following characteristics:

INTAKE NO.	WITHDRAWAL WATER BODY	PUMP CAPACITY	7Q10 FLOW AT INTAKE (CFS)	YEAR CONSTRUCTED
Delaware River Intake	Delaware River	213 mgd	Tidal	1946

The intake is metered.

The pump house is located outside of the 100-year floodplain.

The facility is interconnected with Chester Water Authority.

c. **Other.** Once-through non-contact cooling water is discharged to the Marcus Hook Creek (Outfall No. 101) and Stoney Creek (outfall No. 002), which were most recently approved by DRBC Docket No. D-1986-041-2 on May 10, 2012. Industrial process wastewater is treated at the refinery's IWTP and discharged to Marcus Hook Creek (outfall No. 201) which was also approved by DRBC Docket No. D-1986-041-2. PADEP approved the NPDES Permit No. PA0012637 on February 14, 2012 (effective March 1, 2012) which includes final effluent limitations for the project based on discharges of 3.5 mgd, 65.77 mgd, and 36.17 mgd from Outfalls Nos. 201, 101, and 002, respectively.

Sanitary wastewater from the Trainer Refinery is conveyed to the DELCORA WWTP most recently approved by DRBC Docket No. D-1992-018 CP-2 on September 21, 2011. Both treatment facilities have adequate capacity to receive wastewater from the project.

B. FINDINGS

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

The project refinery is currently in non-operational mode (maintenance only). The docket holder intends to conduct the maintenance operations at the facility until a buyer can be found. This docket and the recommended water allocation was developed on the presumption that refining operations will be conducted in the same manner after a new buyer assumes control of the Trainer Refinery. When the facility is sold to a new owner, the new owner and the current docket holder must apply to the Executive Director for a transfer of this docket to the new owner.

This project consists of an existing withdrawal of surface water from the Delaware River Intake. The docket holder has requested an allocation for the existing intake based on the previous docket allocation. These rates are provided in Decision Condition II.e. in the Decision Section of this docket.

Based on quarterly water usage data submitted to the DRBC, the project withdrawals, used for the purpose of industrial non-contact cooling and processes at the refinery, result in a maximum consumptive use of 1.79 percent of the total water 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 Trainer Refinery (formerly called the Marcus Hook Refinery) was originally owned by Sinclair Refining Company. The project surface water withdrawal was the subject of Docket No. 67-101 issued to Sinclair Refining Company on December 13, 1967. After several changes in ownership, the facility is currently owned by ConocoPhillips which operated the surface water withdrawal under DRBC Docket No. D-96-52. On or about May 1, 2012, the ownership of the Trainer Refinery will pass from ConocoPhillips to Phillips 66.

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%. A DMCP shall be submitted to the Executive Director within 6 months after the resumption of refining operations or the date of the approval of the transfer of the docket to the new owner, whichever occurs first. 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.).

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-1996-052-2 below:

a. Docket Nos. D-67-101 and D-96-52 are terminated and replaced by Docket No. D-1996-052-2.

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. The docket holder shall register with and report to the PADEP all surface and ground water 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 docket holder shall notify the Commission at least fourteen (14) calendar days prior to resuming refinery operations described in this docket.

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

d. The withdrawal shall be operated at all times to comply with the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

e. No withdrawal shall be pumped above the maximum instantaneous rate and allocations as indicated below:

INTAKE NO.	MAXIMUM INSTANTANEOUS RATE	MONTHLY ALLOCATION
Delaware River Intake	105,324 gpm	4,701.667

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

g. 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 by June 30 and shall be available at any time to the Commission if requested by the Executive Director.

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

i. 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.

j. 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).

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 Executive Director and PADEP within 6 months after the resumption of refining operations or the date of the approval of the transfer of the docket to the new owner, whichever occurs first. 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. 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.

n. 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.

o. 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.

p. 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*.

q. A complete application for the renewal of this docket, or a notice of intent to cease the operations (withdrawal, discharge, etc.) approved by this docket by the expiration date, must be submitted to the DRBC at least 12 months prior to the expiration date below (unless permission has been granted by the DRBC for submission at a later date), using the appropriate DRBC application form. 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, the terms and conditions of this docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

r. 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.

s. 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.

t. 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.

u. 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.

v. Renewal of this docket does not resolve violations, if any, by the docket holder that may have occurred prior to this renewal or that may be ongoing (“prior or ongoing violations”) of provisions of the Delaware River Basin Compact (“Compact”) or of any rule, regulation, order or approval duly issued by the Commission or the Executive Director pursuant to the Compact. The Commission reserves its right to take appropriate enforcement action against the docket holder, including but not limited to recovery of financial penalties consistent with Section 14.17 of the Compact, for any and all such prior or ongoing violations.

w. 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: May 10, 2012

EXPIRATION DATE: May 10, 2022