

DOCKET NO. D-1989-053-3

DELAWARE RIVER BASIN COMMISSION

**NGK Metals Corporation
Groundwater Withdrawal Recovery Wells
Groundwater Treatment Plant
Muhlenberg Township, Berks County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Roux Associates, Inc. on behalf of NGK Metals Corporation (NGK or docket holder) on January 29, 2013 (Application), for approval to resume operations of an existing groundwater treatment plant (GTP). National Pollutant Discharge Elimination System (NPDES) Permit No. PA0261637 for this project was issued by the Pennsylvania Department of Environmental Protection (PADEP) on March 30, 2012, effective April 1, 2012.

The Application was reviewed for approval under Section 3.8 of the *Delaware River Basin Compact*. The Berks County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on May 7, 2013.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to approve modifications to the existing 0.36 million gallons per day (mgd) NGK GTP that will result in a decrease in hydraulic design to 0.17 mgd. In addition to the discharge of treated groundwater, the docket holder seeks approval to withdraw up to 5.27 million gallons per month (mgm) of groundwater from the three existing on-site remediation wells (Wells Nos. DW-12, DW-13, and DW-32), a decrease from the previously approved 6.479 mgm. The GTP has not been in operation for several years. The United States Environmental Protection Agency (EPA) has required the facility to re-open and resume operation.

2. Location. The existing project wells are located at the docket holder's former metal production site, in Muhlenberg Township, Berks County, Pennsylvania. The project wells are located in the Allentown Formation. Specific well location information has been withheld for security reasons.

The existing NGK GTP will resume discharging to Laurel Run via Outfall No. 002 at River Mile 92.47 – 80.4 – 2.3 (Delaware River – Schuylkill River – Laurel Run), in Muhlenberg Township, Berks County, Pennsylvania after obtaining all regulatory permits as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
002	40° 24' 06"	75° 55' 50"

3. **Area Served.** The existing project wells will be used only for the purpose of ground water remediation at the docket holder's former metal production site. For the purpose of defining the Area Served, Section B (Type of Discharge) and D (Service Area) of the docket holder's Application are incorporated herein by reference, to the extent consistent with all other conditions contained in the DECISION Section of this docket.

4. **Physical Features.**

a. **Design Criteria.** The docket holder will resume operating three (3) existing wells as part of the remediation system (Wells Nos. DW-12, DW-13, and DW-32). The total requested allocation of groundwater from the three wells is up to a maximum of 5.27 mgm.

The docket holder proposes to construct modifications to the existing 0.36 mgd GTP, resulting in a hydraulic design of 0.17 mgd. Modifications include abandoning one (1) clarifier and constructing two (2) activated alumina vessels along with associated mechanical and electrical changes.

b. **Facilities.** The existing project wells have the following characteristics:

WELL NO.	DEPTH (FEET)	CASED DEPTH (FEET)/ CASING DIAMETER (INCHES)	PUMP CAPACITY (GPM)	YEAR DRILLED
DW-12	160	100/6	175	1989
DW-13	105	105/6	100	1989
DW-32	150	59/8	16	1994

All wells are metered.

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

The existing GTP consists of an equalization tank, two (2) reaction tanks, two (2) clarifiers, a sand filter, a filter press, and a sludge holding tank. Additionally, anionic polyacrylamide, organosulfur, and polyaluminum chloride are added throughout the treatment process for pH control, coagulation, and metals precipitation as needed.

The modified GTP will consist of an equalization tank, two (2) reaction tanks, one (1) clarifier, a sand filter, a sludge holding tank, and a filter press. Additionally, anionic polyacrylamide, organosulfur, polyaluminum chloride, ferrous sulphate, and sodium hydroxide

will be added throughout the treatment process for pH control, coagulation, and metals precipitation as needed.

The GTP is not located in the 100-year floodplain.

Wasted sludge will be hauled off-site by a licensed hauler for disposal at a (State-approved) facility.

d. NPDES Permit / DRBC Docket. NPDES Permit No. PA0261637 was issued by the PADEP on March 30, 2012 (effective April 1, 2012) and includes effluent limitations for the project discharge of 0.17 mgd to surface waters classified by the PADEP as an exceptional value (EV) stream. The following average monthly effluent limits are among those listed in the NPDES Permit and meet or are more stringent than the effluent requirements of the DRBC.

EFFLUENT TABLE A-1: DRBC Parameters Included in NPDES Permit

OUTFALL 002 (GTP)		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times	As required by NPDES Permit
Total Suspended Solids	30 mg/l 42.5 lbs/day	As required by NPDES Permit
Total Dissolved Solids*	1,000 mg/l **	As required by NPDES Permit

* DRBC Requirement

** See DECISION Condition II.u.

EFFLUENT TABLE A-2: DRBC Parameters Not Included in NPDES Permit

OUTFALL 002 (GTP)		
PARAMETER	LIMIT	MONITORING
CBOD (5-Day at 20° C)	Monitor & Report *	Monthly *
Ammonia Nitrogen	Monitor & Report *	Monthly *

* DRBC Requirement

e. Cost. The overall cost of this modification project is estimated to be \$586,866.83.

B. FINDINGS

The purpose of this docket is to approve modifications to the existing 0.36 mgd NGK GTP that will result in a decrease in hydraulic design to 0.17 mgd. In addition to the discharge of treated groundwater, the docket holder seeks approval to withdraw up to 5.27 mgm of groundwater from the three existing on-site remediation wells (Wells Nos. DW-12, DW-13, and DW-32), a decrease from the previously approved 6.479 mgm. The GTP has not been in operation since 2007. The EPA has required the facility to re-open and resume operation.

At the project site, Laurel Run has an estimated seven-day low flow with a recurrence interval of ten years of 0.633 mgd (0.98 cfs). The ratio of this low flow to the hydraulic design of the 0.17 mgd GTP is 3.72 to 1.

The nearest surface water intake of record for public water supply downstream of the project discharge is by the Borough of Pottstown, approximately 26.45 river miles away on the Schuylkill River.

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.

The limits in the NPDES Permit are in compliance with Commission effluent quality requirements, where applicable.

The project is designed to produce a discharge meeting the effluent requirements as set forth in the Commission's *Water Quality Regulations (WQR)*.

C. DECISION

I. Effective on the approval date for Docket No. D-1989-053-3 below, Docket No. D-1989-053-2 is terminated and replaced by Docket No. D-1989-053-3.

II. The project and appurtenant facilities as described in the Section A "Physical Features" of this docket 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 in its NPDES Permit, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission's.

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

c. The facility shall be operated at all times to comply with the requirements of the *Water Code* and *WQR* of the DRBC.

d. During any month, the combined total withdrawal from all well sources shall not exceed 5.27 million gallons. No well shall be pumped above the maximum instantaneous rate and monthly allocation as indicated below:

WELL NO.	MAXIMUM INSTANTANEOUS RATE (GPM)	MONTHLY ALLOCATION (MILLION GALLONS)
DW-12	175	5.27
DW-13	100	4.464
DW-32	16	0.714

e. 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).

f. The existing wells shall be equipped with readily accessible capped ports, and drop pipes so that water levels may be measured under all conditions, where possible, as repairs or modifications are made at each existing well.

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

h. If the monitoring required herein, or any other data demonstrates that the operation of this project significantly affects or interferes with any domestic or other existing wells or surface water supplies, or if the docket holder receives a complaint by any user of wells or surface water supplies within the zone of influence of the withdrawal, the docket holder shall immediately notify the Executive Director of any complaints by users of wells or surface water supplies 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 well or surface water supply which is substantially adversely affected, or rendered dry or otherwise unusable 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. The Executive Director may modify or suspend this approval, or require mitigating measures, pending additional review.

i. During any water emergency or other non-emergency declaration by the Governor of Pennsylvania, PADEP or the Commission, water service or use by the project docket holder pursuant to this docket approval shall be subject to any order or restriction governing those non-essential uses specified by the PADEP to the extent that they may be applicable, and to any other emergency resolutions or orders adopted by the Commission.

j. The docket holder shall comply with the requirements contained in the Effluent Tables in Section A.4.d. of this docket. The docket holder shall submit the required monitoring results directly to the DRBC Project Review Section. The monitoring results shall be submitted annually, absent any observed limit violations, by January 31. If a DRBC effluent limit is violated, the docket holder shall submit the result(s) to the DRBC within 30 days of the violation(s) and provide a written explanation that states the action(s) the docket holder has taken to correct the violation(s) and protect against any future violations.

k. Except as otherwise authorized by this docket, if the docket holder seeks relief from any limitation based upon a DRBC water quality standard or minimum treatment requirement, the docket holder shall apply for approval from the Executive Director or for a docket revision in accordance with Section 3.8 of the *Compact* and the *Rules of Practice and Procedure*.

l. 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.

m. The discharge of wastewater shall not increase the ambient temperatures of the receiving waters by more than 5°F until stream temperatures reach 50°F, nor by more than 2°F when stream temperatures are between 50°F and 58°F, nor shall such discharge result in stream temperatures exceeding 58°F.

n. The docket holder is permitted to treat and discharge wastewaters as set forth in the Area Served Section of this docket, which incorporates by reference Sections B (Type of Discharge) and D (Service Area) of the docket holder's Application to the extent consistent with all other conditions of this DECISION Section.

o. The docket holder shall make wastewater discharge in such a manner as to avoid injury or damage to fish or wildlife and shall avoid any injury to public or private property.

p. Nothing in this docket approval shall be construed as limiting the authority of DRBC to adopt and apply charges or other fees to this discharge or project.

q. The issuance of this docket approval shall not create any private or proprietary rights in the waters of the Basin, and the Commission reserves the right to amend, suspend or rescind the docket for cause, in order to ensure proper control, use and management of the water resources of the Basin.

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 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.

t. 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.

u. The docket holder may request of the Executive Director in writing the substitution of specific conductance for TDS. The request should include information that supports the effluent specific correlation between TDS and specific conductance. Upon review, the Executive Director may modify the docket to allow the substitution of specific conductance for TDS monitoring.

v. The docket holder is prohibited from treating/pre-treating any hydraulic fracturing wastewater from sources in or out of the Basin at this time. Should the docket holder wish to treat/pre-treat hydraulic fracturing wastewater in the future, the docket holder will need to first apply to the Commission to renew this docket and be issued a revised docket allowing such treatment and an expanded service area. Failure to obtain this approval prior to treatment/pre-treatment will result in action by the Commission.

BY THE COMMISSION

DATE APPROVED: May 8, 2013

EXPIRATION DATE: March 31, 2017