



The State of New Hampshire
Department of Environmental Services



Robert R. Scott, Commissioner

May 21, 2020

Mr. John Brezosky
Production Manager
Oxy-Gon Industries Inc.
P.O. Box 40
Epsom, New Hampshire 03234

Subject: Water Quality Certification 2020-485A12IV—001
Temporary Withdrawal from the Suncook River in Epsom, NH

Dear Mr. Brezosky:

On April 30, 2020, the New Hampshire Department of Environmental Services (NHDES) received an application for a Water Quality Certification (Certification or WQC) from Oxy-Gon Industries Inc. (Applicant) to temporarily withdraw water from the Suncook River in Epsom, New Hampshire for cooling of a furnace during an operational test (Activity). The heated water will be discharged to the ground and not directly to the Suncook River. Based on the facts, findings and conditions noted herein, and in accordance with RSA 485-A:12, IV, the NHDES has determined that there is reasonable assurance that the Activity will not violate surface water quality standards and hereby issues this WQC, subject to the following conditions:

WATER QUALITY CERTIFICATION CONDITIONS

Unless otherwise authorized or directed by NHDES, the following conditions shall apply:

- 1. Compliance with Certification Conditions:** The Applicant shall construct and operate the Activity to comply with this Certification.
- 2. Compliance with Water Quality Standards:** The Activity shall not cause or contribute to a violation of New Hampshire surface water quality standards.
- 3. Modification of Certification:** The conditions of this Certification may be amended and additional terms and conditions added as necessary to ensure compliance with New Hampshire surface water quality standards, when authorized by law, and, if necessary, after notice and opportunity for hearing.
- 4. Proposed Modifications to the Activity:** The Applicant shall consult with and receive prior written approval from NHDES regarding any proposed modifications to the Activity that could have a significant or material effect on the conditions of this Certification including any changes to project operation or approved plans required by this Certification. If necessary, NHDES may modify the Certification in accordance with Condition 3 of this Certification.
- 5. Compliance Inspections:** In accordance with applicable laws, the Applicant shall allow NHDES to inspect the Activity and affected surface waters to monitor compliance with the conditions of this Certification.
- 6. Transfer of Certification:** Should this Certification be transferred to a new owner, contact information for the new owner (including name, address, phone number and email) shall be provided to NHDES within 30 days of the transfer.
- 7. Compliance with Other Permits:** The Applicant shall obtain all applicable permits prior to withdrawing water

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from the Suncook River including, but not limited to, the following:

- NHDES Temporary Groundwater Discharge Permit.

The Applicant shall comply with all such permits and any amendments or reissuances. Conditions of these permits shall become conditions of this Certification upon issuance of this Certification. Should there be any discrepancies between permit requirements, the more stringent requirement as it relates to compliance with New Hampshire surface water quality standards shall apply.

- 8. Water Use Registration and Reporting:** The Applicant shall register the withdrawal and any applicable discharges with the NHDES Water Use Registration and Reporting Program (WURRP) and comply with all WURRP requirements¹.
- 9. Water Intake Conditions:**
 - a. Prior to installation of the intake pipe in the river, the Applicant shall provide NHDES with a description and sketch showing how the pipe will be installed in the river. The Applicant shall not proceed with installation of the pipe in the river until NHDES has approved the design and determined if a NH Wetlands Permit is needed. If a NH Wetlands Permit is needed, the Applicant shall obtain a Wetlands Permit from the NHDES Wetlands Bureau prior to proceeding with installation of the intake pipe.
 - b. The end of the water intake pipe shall be equipped with a screen to prevent impingement of aquatic organisms. The screen shall be designed per guidance provided by the NH Fish and Game Department (NHFGD). Prior to withdrawing water, the Applicant shall provide NHDES with a photo of the installed screen and written evidence that the screen is acceptable to the NHFGD.
 - c. The intake pipe shall not interfere with boating or other recreational uses of the Suncook River.
- 10. Withdrawal Conditions:** The withdrawal from the Suncook River shall
 - a. be in the location shown in the WQC application, which is adjacent to the Applicant's property;
 - b. not cause or contribute to violations of NH surface water quality standards;
 - c. be no greater than 300 gallons per minute;
 - d. occur for no more than 8 hours per day;
 - e. only occur when river flow in the Suncook River as measured at the USGS gage 01089500 (Suncook River at North Chichester, NH²) is 67 cubic feet per second (cfs) or greater unless the Applicant receives prior approval from NHDES and NHFGD to withdraw water when river flows are less than 67 cfs;
 - f. not occur after this temporary WQC expires (see Condition 14).
- 11. No Direct Discharge to Suncook River:** Withdrawn water shall not be discharged directly to the Suncook River (e.g., via overland, piped or channelized flow).
- 12. Record Keeping and Reporting:** The Applicant shall maintain records demonstrating compliance with this WQC and submit these records via email³ on a weekly basis to NHDES. Records for the previous week (Sunday through Saturday) shall be submitted by noon on Tuesday of the following week. Daily records shall include, but not be limited to, the following:

¹ For information regarding the NHDES Water Use Registration and Reporting program, see [the Water Use Registration and Reporting Program webpage](#).

² See the [USGS website](#) for real-time flow readings at USGS gage 01089500 (Suncook River at North Chichester, NH).

³ Email records to Gregg Comstock at Gregg.Comstock@des.nh.gov.

- a. Flow at USGS gage 01089500 (Suncook River at North Chichester, NH) when withdrawals start and stop;
- b. date and time withdrawals start and stop;
- c. pumping rate (in gpm); and the
- d. volume pumped (in gallons).

13. Notification of Non-compliances: The Applicant shall notify NHDES via email ³ within 48 hours of any non-compliances with this WQC. Such notification shall include, but not be limited to, the reasons for non-compliance and corrective actions taken to prevent such non-compliances from reoccurring. The Applicant shall also notify NHDES via email ³ within 48 hours of when the Activity has been completed (i.e., no more withdrawals will be conducted).

14. WQC Expiration Date: Unless extended by NHDES in writing, this temporary WQC shall expire July 31, 2020.

FACTS AND FINDINGS

The decision to issue this certification was based on the following facts and findings.

1. The Activity requires a WQC in accordance with RSA 485-A:12, IV and RSA 488:3 which state the following:

RSA 485-A:12, IV:

“No activity that involves surface water withdrawal or diversion of surface water that requires registration under RSA 488:3, that does not otherwise require the certification required under paragraph III, and which was not in active operation as of the effective date of this paragraph, may commence unless the department certifies that the surface water withdrawal or diversion of surface water complies with state surface water quality standards applicable to the classification for the surface water body. The certification shall include any conditions on, modifications to, or monitoring of the proposed activity necessary to provide reasonable assurance that the proposed activity complies with applicable surface water quality standards.”

RSA 488:3 Registration Required:

I. No person shall withdraw or discharge a cumulative amount of more than 20,000 gallons of water per day, averaged over any 7-day period, or more than 600,000 gallons of water over any 30-day period, at a single real property or place of business without registering the withdrawal or discharge with the department. Transfers of such volume of water shall also be registered. Registration shall be in addition to any required permits.

II. No registration shall be transferred to another person without written notification to the commissioner.

2. The Applicant submitted an application for WQC on April 30, 2020 to withdraw 300 gpm from the Suncook River in Epsom, NH for no more than eight hours per day (i.e., 144,000 gallons per day) and for no longer than three weeks with an anticipated start date in June, 2020. On May 20, 2020, the Applicant advised that the start date is anticipated to be in July, 2020. The water will be used to cool down a furnace during testing. Withdrawn water will be heated to approximately 100 degrees F (37.8 degrees C). The Applicant does not intend to discharge the heated water back to the Suncook River;

rather, the Applicant intends to infiltrate the heated water on-site and apply for a NHDES Temporary Groundwater Discharge Permit.

3. The Suncook River is a Class B surface water that is subject to New Hampshire's surface water quality standards found in RSA 485-A:8 and Env-Wq 1700⁴. The goal of Class A and B surface waters is to support aquatic life, primary and secondary contact recreation, fish consumption, wildlife, and, after adequate treatment, as a water supply (Env-Wq 1702.17).
4. According staff from the NH Fish and Game Department (NHFGD), there are records of the brook floater mussel (*Alasmidonta varicose*), which is an endangered species in New Hampshire, being in the vicinity of the proposed withdrawal. It is important that the withdrawal not cause harm to these mussels.
5. To prevent impingement of fish and other aquatic organisms, the NHFGD has requested a screen to be placed on the end of the water intake pipe. NHFGD provided NHDES with guidance for design of the screen which was transmitted to the Applicant. The Applicant has agreed to include a screen on the end of the water intake pipe that will comply with the screen design guidance.
6. United States Geological Survey (USGS) gage 01089500 (Suncook River at North Chichester, NH) exists on the Suncook River approximately two miles upstream of the proposed withdrawal. Historical and real-time measurements of flow and river depth at the gage are available on-line on the USGS website². The drainage area to the USGS gage is approximately 157 square miles which is approximately 94 percent of the drainage area at the proposed withdrawal location which has a drainage area of approximately 159.9 square miles. Therefore, the river gage provides a reasonable approximation of flows at the proposed withdrawal location.
7. Monthly flow statistics for USGS gage 01089500 are available for the period of record which includes May 1918 to September 1920, June 1921 to November 1927, November 1928 to September 1970, and November 2007 to the current year. According to USGS, flow has historically been regulated at times by mills and reservoirs above the gage, with regulation being greater prior to 1949. Therefore, for the purpose of determining monthly statistics that aren't skewed by periods of high flow regulation, the period of record from 1950 to 1970 and from November 2007 to the current year was used. Results for June through December are shown in the Table 1 below. The proposed withdrawal of 300 gpm (0.67 cfs) is one percent of a river flow equal to 67 cfs (0.67/67). As shown in Table 1, a river flow of 67 cfs is between the 50th and 75th percentile of flows that have historically occurred in the month of July. To estimate how much the river water level would drop due to the withdrawal, the gage (i.e., depth) data for USGS gage 01089500 was reviewed. For every one cfs decrease in river flow from approximately 34 cfs to 31 cfs, the depth of water at the USGS gage dropped approximately 1/8 of an inch. Therefore, assuming river characteristics at the proposed withdrawal and USGS gage are similar, the withdrawal should result in a decrease in water level elevation of no more than approximately 1/8 of an inch for river flows above approximately 30 cfs. This relatively small drop in water elevation is not expected to adversely impact the brook floater mussel or other aquatic organisms.

⁴ NH surface water quality standard [regulations](#) and [statutes](#).

Table 1: Monthly Flow Statistics at USGS Gage 01089500

Monthly Statistic 1950-1970, 2007-2019	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average	151	88	72	78	141	270	321
Maximum	395	440	464	454	519	865	643
75th percentile	195	79	70	82	191	398	462
50th percentile (Median)	141	51	30	34	122	217	277
25th percentile	70	30	20	16	61	132	179
10th percentile	52	17	15	11	21	73	120
Minimum	21	9	5	3	17	38	74

APPEAL

Any person aggrieved by this decision may appeal to the N.H. Water Council (“Council”) by filing an appeal that meets the requirements specified in RSA 21-O:14 and the rules adopted by the Council, Env-WC 100-200. The appeal must be filed directly with the Council within 30 days of the date of this decision and must set forth fully every ground upon which it is claimed that the decision complained of is unlawful or unreasonable. Only those grounds set forth in the notice of appeal can be considered by the Council. Information about the Council, including a link to the Council’s rules, is available on the [New Hampshire Environmental Council website](#) (or more directly at the [Water Council page](#)). Copies of the rules also are available from the NHDES Public Information Center at (603) 271-2975.

If you have questions regarding this Certification, please contact Gregg Comstock at (603) 271-2983 or Gregg.Comstock@des.nh.gov.

Signed electronically, see attached email

Thomas E. O’Donovan, P.E., Director
NHDES Water Division

cc via email:
Carol Henderson, NHFGD
Mitch Locker, NHDES
Stacey Herbold, NHDES