



ADVANCED NOTICE

For Proposed SPDES General Permit

For

Discharges of Winery, Brewery, and Hard Cider Process Wastewater to Groundwater

Introduction

Through this Advanced Notice of Proposed Permit (ANPP), the New York State Department of Environmental Conservation (“the Department”) ***is soliciting stakeholder input regarding the potential issuance of a State Pollutant Discharge Elimination System (SPDES) general permit that would provide coverage for wastewater discharges to groundwater from licensed Wineries, Breweries, and Hard Cideries in New York State.*** The Department is specifically seeking input on the questions listed at the end of this ANPP. However, additional information that may be relevant to the ANPP may also be provided to the Department. Instructions on how to provide input are provided on the final page of this ANPP. Public input will help the Department determine what conditions are appropriate for a draft general permit, considering protection of the environment as well as achievability by the industry.

The Environmental Conservation Law (§17-0505) requires a SPDES permit to make or use a disposal system or point source for the discharge of industrial waste, sanitary or other wastes which may cause or might reasonably be expected to cause pollution to waters of the State (including groundwater). Process wastewater generated through the manufacture and production of wine, beer, and hard cider is considered an industrial waste that can have significant ranges in pH and contain high levels of oxygen demanding organic material and solids. The number of licensed winery, brewery and hard cideries is rapidly growing in NYS and there is a need for standardized wastewater management to reduce the potential for water quality impacts. A SPDES permit would provide the requisite coverage for facilities discharging process wastewater, with or without the admixture of sanitary wastewater, to groundwaters.

Due to the similar nature of operations, pollutant content, associated control measures and effluent limits applicable to the manufacture of wine, beer and hard cider, the Department believes that a general permit is appropriate. A general permit would provide coverage to comply with the mandatory requirements of the Environmental Conservation Law, with uniform standards for management of process and sanitary wastewater, while providing a manageable application fee to help foster the growth of New York’s wine, beer and hard cider industries. A general permit would also streamline the SPDES permitting process for these industries

reducing the costs and administrative burden to both the Department and the regulated entities. The Department seeks to develop a general permit that protects water quality, supports a strong economy and meets the needs of the industry. It is anticipated that the general permit will provide for coverage for many of the facilities in this industry. This ANPP provides a summary of conditions that the Department is considering for a general permit, including eligibility, treatment systems, and reporting.

Please consider the following proposed conditions that the Department is evaluating for potential inclusion in a draft general permit.

Eligibility

The contemplated general permit would apply statewide to existing and new licensed wineries, breweries, and hard cideries in NYS that discharge process wastewater, with or without the admixture of sanitary wastewater, to groundwater from onsite wastewater treatment systems that have a design peak flow of less than 10,000 gallons per day (GPD).

Obtaining Coverage

Existing Facilities

The Department recognizes that there may be existing facilities, especially small producers, that currently discharge wastewater to onsite residential septic systems. These systems were designed to treat domestic sewage and although the waste associated with these industries has similar characteristics, it may have higher volumes and/or strengths that may not be effectively treated by a typical residential system. Rather than excluding existing facilities from coverage under a general permit, the Department is considering including separate requirements for existing dischargers that were in operation prior to the effective date of the general permit.

Under the contemplated general permit, existing dischargers would be allowed to continue to operate their current system unless/until a modification is needed for an expansion that cannot be properly managed by the existing system or if the system is in need of replacement/modification due to failure. In order to obtain coverage under the contemplated general permit, existing dischargers would be required to retain a Professional Engineer (PE) licensed to practice in NYS to assess¹ their current system(s) and certify that the system is operating correctly and is being properly maintained. This certification would include the approximate age of the existing system, as well as a brief description of the system, including a description of the soil profile for the absorption area and operation/maintenance needs to ensure continued, long term performance. The owner/operator would then submit a Notice of

¹ The Department expects the PE assessment to include: a visual inspection of the subsurface treatment area to determine if any spongy ground and/or ponding is evident; evaluation of the septic tank (or equivalent) to verify the solids level is not within a quarter (1/4) of the operating capacity; and an evaluation of all screens (influent and/or effluent) to ensure there are no holes/bypass and no blockage/debris build-up.

Intent to receive general permit coverage, as well as the PE certification to the Department's Central Office (Albany, NY) for review.

New Facilities

Under the contemplated general permit, facilities constructed after the effective date of the general permit ("New Facilities") would have their systems designed by a PE licensed to practice in NYS. The concept for new facilities is to provide flexibility in design of the treatment process prior to the subsurface system. By employing wastewater stabilization, screening/ filtering, septic (aerobic/ anoxic) tank(s) or other proven process that meets specified design criteria, the discharge to the subsurface drainage field would be treated to concentrations typical of septic tank effluent loadings. As part of the application process for obtaining coverage under the contemplated general permit the Department is considering that a PE certify that the proposed wastewater treatment system meets the following criteria:

- (1) The wastewater generated is fully characterized including the variability in strength and volume expected;
- (2) The treatment process prior to discharge to the subsurface treatment system will provide an effluent that meets the following design criteria²:
 - a. BOD₅ – 150 mg/L
 - b. TSS – 100 mg/L
 - c. TDS – 500 mg/L
 - d. pH - 6 - 9
 - e. TP – 15 mg/L
 - f. TN – 50 mg/L
- (3) Flow monitoring and equalization to address the expected variability in hourly, daily and seasonal wastewater generation. A flow monitoring³ device capable of monitoring the peak rates and volume of process wastewater entering the treatment system must be installed and maintained.
- (4) Adequate controls to ensure the system does not receive process wastewater that exceeds the system's design flow or has a strength or characteristic beyond the design capability of the system.
- (5) A subsurface treatment system is designed in accordance with the 2014 New York State Design Standards for Intermediate Sized Wastewater Treatment Systems (NYS Design Standards) or the 2015 New York State Design Standards for Wastewater Treatment Works in the Lake George Basin for those facilities located in the Lake George Basin. Specifically, the Department is considering:
 - a. A subsurface treatment system based on the peak daily flow expected after flow equalization in order to avoid hydraulic overloading. Additionally, the Department is considering requiring pressurized or dosed distribution

² EPA Onsite Wastewater Treatment Systems Manual (2002) – these criteria represent the level of pollutants that are typical of septic tank effluent and if exceeded could cause premature failure of the subsurface treatment system. Exceedance of these values require some action to protect the subsurface treatment system.

³ Flow monitoring is a necessary requirement because of the high flow variations expected during times of production vs. off production. The information collected will be necessary to inform future iterations of this permit.

systems to provide for uniform distribution to the subsurface treatment area;
and

- b. A subsurface treatment system that includes either:
 - i. a minimum of 3 absorption areas, each sized to 50% of the peak daily design flow to allow for resting during high flow periods. The third area would be alternated into service on a semi-annual basis and extend the useful life of the subsurface treatment system; or
 - ii. a full field (100% peak design) plus a 100% replacement area.

Operation and Maintenance

(applicable to Existing & New facilities)

Proper maintenance of the wastewater treatment system will protect the subsurface treatment system and extend its useful life preventing shutdowns, costly replacements or compliance problems. The Department is considering requiring an Operation and Maintenance plan to ensure long term performance of the treatment system that includes the following minimum components:

- Flow Monitoring: Average, peak, and total flow must be monitored and recorded daily to ensure permit conditions are not exceeded as well as to inform future permit iterations.
- Periodic Inspection of the treatment components to ensure continuous and effective operation of each treatment component including:
 - a. Inspection of the subsurface treatment system at least once per quarter plus at least once during peak flow period(s) for ponding or wetness at or around the absorption field, or other signs of failure. If signs of failure are discovered, the owner/operator must act to prevent a discharge to surface waters and follow procedures outlined below for Notification for a failure.
 - b. Septic tank inspections performed by a PE, a National Association of Wastewater Technician (NAWT)-certified inspector, or a NY Onsite Wastewater Treatment Training Network (OTN)-registered inspector for scum and sludge accumulation at least once per year. The owner/operator must remove and properly dispose of scum and sludge accumulations before they exceed one-fourth of the liquid depth. Date of annual inspection must be recorded and reported in the annual report. Receipts from pumping services must be kept onsite. The septic tank must be pumped, at a minimum, once every three years.

Monitoring

The contemplated general permit would include provisions for monitoring to demonstrate compliance with the terms and conditions of the general permit. This would include monitoring throughout the term of the general permit that would be summarized and reported to the Department with an annual report (see Reporting & Recordkeeping Section). The Department

will use the information gathered on existing systems to better inform future general permit requirements.

Existing Facilities

The Department is considering requiring quarterly grab samples collected from the inlet to the subsurface treatment system to be analyzed for the following parameters: BOD5, Total Suspended Solids, Total Dissolved Solids, pH, Total phosphorus, Total Nitrogen. This would be a monitor only requirement.

New Facilities

The Department is considering requiring quarterly grab samples collected from the inlet to the subsurface treatment system to be analyzed for the following parameters: BOD5, Total Suspended Solids, Total Dissolved Solids, pH, Total Phosphorus, and Total Nitrogen. For new facilities, though, the Department is considering including benchmark concentrations⁴ for each of the parameters. If benchmark concentration(s) are exceeded for any one quarter, the owner/operator would be expected to document corrective actions taken and provide that information in the annual report.

Recordkeeping & Reporting (applicable to Existing & New facilities)

As with typical SPDES permits, the contemplated general permit would include provisions for recordkeeping and reporting information to the Department. The Department is considering the following provisions for recordkeeping and reporting for both new and existing facilities:

- Annual Reporting of information gathered on the treatment system performance. The annual report would be submitted to the Department by March 31st each year on forms provided by the Department reflecting the operations from Jan-Dec of the previous year. The annual report would include the maximum peak daily flow recorded for every month, quarterly sampling results, inspection information and corrective actions taken for exceedance of benchmark concentrations (new facilities).
- Maintenance of records on site. Flow monitoring and inspection records would not need to be submitted to the Department unless requested. All records would be kept on site for a minimum of 5 years.
- Verbal and written reporting requirements when a failure (ponding or other factors that could lead to a potential discharge to surface waters) is identified. The owner/operator would be required to immediately cease the discharge and give 24 hour and 5-day notification to the Department;

⁴ Benchmark concentrations are a pollutant level that is intended to provide a guideline for the owner/operator to determine the overall effectiveness of their treatment system. The benchmark concentrations do not constitute direct effluent limitations and therefore exceedances are not considered a permit violation. Rather, a benchmark concentration exceedance is an indication that the treatment system is receiving a higher concentration than the design criteria and prompts the owner/operator to look further into the cause of the exceedance and employ whatever measures are necessary to correct.

- Within 24 hours, the owner/operator must verbally inform the Regional Office of the failure; and
- Within 5 days, submit a written incident report to the Regional Office including interim measures and long-term corrective actions, with associated timelines;

Additional considerations

Estimated costs to the regulated community:

Costs associated with contemplated sampling – \$50-60 per round

Costs associated with certified inspector septic tank inspections – Owner could get certified or expect to pay ~\$200

Cost of general permit fee- \$110 per year (this fee is set in statute)

Cost associated with PE evaluation of existing system – expected between \$500-1500

Instructions for Submitting Input/Answering Questions

- A. In responding to this solicitation for input, please provide suggestions for the Department to consider by identifying the appropriate section above or question below, and providing your reason for the support or objection, any supporting data/research/examples if available, and any suggested alternative language. Information can be submitted anonymously.
- B. Specific questions the Department is interested in and would like to specifically request answers from individuals in these industries are listed below:
1. If known, please provide a brief description or diagram of your treatment system.
 2. How many barrels or cases of product do you produce a year?
 3. Do you combine the wastewater generated from your beverage production (tank/process wash water, etc.) with your sanitary wastewater?
 4. When you started your business;
 - a. did you build a new treatment system for the wastewater?
 - b. did you modify the current system to accommodate the new process wastewater?
 - c. did you just start using the existing system that was there prior to conversion to the winery, brewery, or hard cidery?
 - d. was a PE involved at any point in construction/conversion/use of your treatment system?
 5. Have you experienced any system failures (ie. backing up of your sanitary lines, bubbling on the surface of your leach field, etc.) that you're aware of with your current

system? If so, what was the cause of the failure and what were the corrective actions taken?

6. What chemicals or cleaning products are used to clean the equipment used in the production process at your facility?
7. Do you use preservatives in your products? If so, when are they added to the process? Would you reasonably expect to see them in your wastewater?
8. Would quarterly sampling of your septic tank (or equivalent) effluent hinder your operation in anyway? If so, please explain.
9. Do you feel quarterly sampling would sufficiently characterize your wastewater discharge? If not, please provide a suggested term and justification.
10. Do you have a trained individual (PE/Certified Operator) inspect your treatment system periodically?
11. When did you last have your septic tank pumped out?
12. Do you utilize water softeners in your production process?
13. Do you currently have a written Inspection, Operation and Maintenance (O&M) Plan for the treatment system?
14. Would your facility meet the eligibility requirements? If not, why?
15. What impact do you think the above requirements would have on the financial well-being of your operation? Both initially and long-term?
16. Do you land apply any of your waste (either directly or through a farmer)?