



Department of
Environmental
Conservation

**SPDES PRIVATE, COMMERCIAL,
INSTITUTIONAL GENERAL PERMIT FOR
SANITARY WASTEWATER DISCHARGES TO
GROUNDWATER**

FACT SHEET

for

Permit No. GP-0-15-001

**Issued Pursuant to Article 17, Titles 7, 8 and Article 70
of the Environmental Conservation Law
Private, Commercial and Institutional General Permit
Revision Summary of Permit Changes**

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DIVISION OF WATER

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INTRODUCTION

The New York State Department of Environmental Conservation (NYSDEC) has prepared the 2015 SPDES Private/Commercial/Institutional (PCI) General Permit for Groundwater Discharge of Treated Sanitary Sewage (GP-0-15-001). This new general permit can be used to authorize discharges of sanitary sewage only to groundwater with a cumulative capacity of less than 30,000 gpd from a single PCI facility. The allowable treatment system capacity remains at less than 10,000 gpd. The 2015 PCI General Permit replaces the current 2005 SPDES PCI General Permit (GP- 0-05-001).

New York State Department of Environmental Conservation issues SPDES permits in accordance with the Environmental Conservation Law (“ECL”).

The SPDES PCI General Permit for Groundwater Discharges of Treated Sanitary Sewage (GP-0-15-001) is a ten (10) year permit that will cover discharges of sanitary sewage to groundwaters of the State from private, commercial or institutional activities pursuant to the Environmental Conservation Law (ECL) § 70-0117(6).

ECL § 70-0117(6)(b)(ii) allows a general permit for one or more discharges of sewage effluent without the admixture of industrial waste or other wastes, with each discharge being less than 10,000 gpd.

The upper limit of less than 30,000 gpd for the cumulative treatment system discharges for a single facility is consistent with the threshold for discharges exempt from groundwater effluent limitations in 6 NYCRR § 702.21(a)(1). Since this General Permit does not require end-of-pipe sampling or impose numeric effluent limitations, DEC believes that it is justifiable to cover a facility with a combined flow up to the 30,000 gpd threshold.

The lower limit for a treatment facility discharge is 1,000 gpd to groundwaters, pursuant to ECL § 17-0701(6). Treatment systems with design flow capacities less than 1,000 gpd are exempt from SPDES permit coverage. PCI GP permits, however, may include outfall numbers and design flows for exempt treatment systems for informational purposes, e.g. possible future expansion of the facility.

The fact sheet contains the rationale for the changes made to GP-0-05-001 to arrive at the 2015 PCI GP (GP-0-15-001).

Changes to GP-0-05-001

General Permit Authorized Activity

This revised general permit, like the 2005 PCI GP, continues to authorize the discharge to groundwater of treated sanitary waste, without the admixture of industrial or other wastes, from on-site treatment systems with design flows equal to or greater than 1,000 gpd and less than 10,000 gpd. The 2015 PCI General Permit, however, limits cumulative discharges from a facility with multiple treatment systems to less than 30,000 gpd.

The upper threshold of 10,000 gpd per treatment system is pursuant to ECL § 70-0117 (6)(b)(ii). The lower threshold of 1,000 gpd per treatment system is pursuant to ECL § 17-0701(6) and 6 NYCRR § 750-1.5(a)(4)(i).

The rationale to allow cumulative facility discharges up to the 30,000 gpd threshold (with each treatment system outlet less than 10,000 gpd) is consistent with the exemption for effluent limitation and monitoring requirements in 6 NYCRR § 702.21(a)(i)-(iii). Since this General Permit does not require effluent quality monitoring or impose numeric effluent limitations, it is consistent with the § 702.21 exemption to allow coverage under this General Permit of cumulative discharges up to the 30,000 gpd threshold.

Exclusions from Coverage under this General Permit

- **Areas of special (100-year) flood hazard as defined in ECL Article 36**

This exclusion is to protect the waters of the state that could become contaminated by soil-based treatment systems that are washed away by flood waters or structurally compromised by flood waters such that undertreated sanitary wastewater is discharged to the surface waters of the state, or having the soil-based Onsite Wastewater Treatment System (OWTS) treatment performance compromised by rising waters of more frequent 100 year floods, as is currently predicted.

- **Coastal Erosion Hazard Areas as defined in ECL Article 34 and identified on the Department's Coastal Erosion Hazard Area Maps.**

This exclusion is to protect the waters of the state that could become contaminated by soil-based OWTS that are washed away by coastal surge or flood waters, or structurally compromised by coastal surge or flood waters such that under-treated sanitary wastewater is discharged to the surface waters or groundwaters of the state.

In New York City, Coastal Erosion Hazard Areas are located in Kings, Queens, and Richmond Counties. Maps for these areas can be found on the NYC Department of Buildings website.

To obtain Coastal Erosion Hazard Area Maps for areas outside of New York City, including the coastlines of Long Island, Lake Erie, Lake Ontario, and Westchester County, please contact Coastal Staff at (518) 402-8185.

- **Freshwater wetlands and their 100 foot adjacent areas as defined in ECL Article 24.**

This exclusion is to protect state wetlands and their 100 foot adjacent areas from becoming contaminated by effluent from soil-based OWTS.

For freshwater wetlands outside the Adirondack Park, the public can find approximate locations of wetlands regulated under ECL Article 24 using the Environmental Resource Mapper on the DEC Public Website at <https://www.dec.ny.gov/imsmaps/ERM/viewer.htm>. Precise information on regulated freshwater wetlands can be obtained by contacting the Regional DEC office covering the county where the project is located.

The public should contact the Adirondack Park Agency for information on freshwater wetlands regulated under ECL Article 24 inside the Adirondack Park.

- **Tidal wetlands and their adjacent areas as defined in ECL Article 25.**

This exclusion is to protect state wetlands and their adjacent areas from becoming contaminated by effluent from soil-based OWTS.

The public can find Tidal Wetlands maps on the Long Island Geographic Information System User Group website: https://www.ligis.org/?page_id=103. Precise information on regulated tidal wetlands and the extent of their adjacent areas can be obtained by contacting the Regional DEC office in which the project is located.

- **Wild, scenic, and recreational river corridors as defined in ECL Article 15, Title 27, and Implementing Regulations 6 NYCRR Part 666.**

<http://www.dec.ny.gov/permits/6393.html#6>

This exclusion is to protect state waters designated as wild, scenic or recreational and their corridors from becoming contaminated by effluent from soil-based OWTS.

Descriptions of the Wild, Scenic, and Recreational Rivers are listed on the DEC Public Website (<http://www.dec.ny.gov/permits/32739.html>) and the regulated corridor includes the river itself as well as a corridor that can extend as much as ½ mile from each river bank. Exact corridor boundaries for individual river segments can be obtained from the DEC Regional office in which your project is located.

- **Kings, Nassau, Queens and Suffolk Counties.**

This PCI GP is not applicable in Nassau, Suffolk, Kings or Queens County to protect the Long Island Aquifers. There is a more stringent nitrate groundwater standard of 10 mg/l for the Long Island Aquifers as compared to the statewide standard of 20 mg/l. This is a continuation of the exclusion from the 2005 PCI GP.

The following sentence was added to the “Exclusions from Coverage Under this Permit” section of the General Permit:

“NYSDEC retains the right to exclude an activity from authorization under this General Permit and to require an applicant to obtain an individual SPDES permit.”

Designing treatment facilities according to the Design Standards

Several changes were made to increase the treatment facility options that an applicant can select, and to ensure that:

- treatment facilities are initially designed according to the 2014 NYSDEC Design Standards for Intermediate-sized Wastewater Treatment Systems, or for projects to be constructed in the Lake George watershed, the 2015 Design Standards for Wastewater Treatment Works in the Lake George Basin with professional engineer certification;
- treatment facilities are constructed according to the engineering design and site plan that were originally approved with all deviations noted in “as-built” drawings;
- the completed treatment system is certified by the professional engineer overseeing construction as meeting the design standards; and
- as-built drawings are maintained by the permittee and provided to the DEC Central Office in electronic format, prior to commencing discharge under this General Permit. As-built drawings are not required if no modifications were made to the originally approved engineering design and site plan.

Standard and Alternative Technologies

Five Standard Technology and four Alternative Technology treatment units or processes are referenced in the 2014 NYSDEC Design Standards for Intermediate-sized Wastewater Treatment Systems, or for projects to be constructed in the Lake George watershed, the 2015 Design Standards for Wastewater Treatment Works in the Lake George Basin.

Standard Technologies:

- Septic Tanks & Absorption Trenches or Beds
- Septic Tanks & Shallow Absorption Trenches
- Septic Tanks & Cut and Fill Systems
- Septic Tanks & Raised Systems
- Septic Tanks & Seepage Pits

Gravelless system components from the two current DEC design standards are included in the standard technology designation.

For these standard technologies that have been successfully deployed for wastewater treatment in New York State for decades, DEC review of the engineering design and site plan may not be necessary as long as the engineering design and site plan are certified by a person or firm licensed to practice professional engineering in the State of New York that the design of the treatment system or collection system/service area conform to the 2014 NYSDEC Design Standards for Intermediate-sized Wastewater Treatment Systems, or for projects to be constructed in the Lake George watershed, the 2015 Design Standards for Wastewater Treatment Works in the Lake George Basin, and discharge is only to groundwater.

Alternative Technologies:

The following Alternative technologies are generally acceptable under this General Permit, and may be reviewed by the NYS DEC Regional Water Engineer:

- Septic Tank(s) & Absorption Fields or Bed(s) using an alternative aggregate (alternative aggregates may require a Beneficial Use Determination by DEC)
- Septic Tanks & Mound Systems
- Septic Tanks, Single-Pass Sand Filters & Pressurized Shallow Narrow Drainfields
- Septic Tanks & Drip Dispersal or other Low Profile Dispersal Systems.

Alternative on-site treatment facilities must be certified by a professional engineer licensed to practice in New York, must incorporate the design criteria for the selected alternative technology treatment units or processes as provided in the 2014 NYSDEC Design Standards for Intermediate-sized Wastewater Treatment Systems, or for projects to be constructed in the Lake George watershed, the 2015 Design Standards for Wastewater Treatment Works in the Lake George Basin.

For these alternative technologies, where discharge is only to groundwater, a review of the engineering design and site plan by DEC is warranted in addition to having the engineering design and site plan certified by a person or firm licensed to practice professional engineering in the State of New York because:

- the alternative technology may have been successfully deployed for wastewater treatment in other states, but is seldom approved in New York State;
- the alternative technology requires a specific area of design expertise, or a manufacturer's guidance document; or
- the alternative technology requires a Beneficial Use Determination by DEC.

Other treatment technologies not specified in the aforementioned design standards requires an individual SPDES permit.

Applicants having questions regarding a preferred technology for a proposed or existing facility are advised to contact the Regional Water Engineer.

Areas where the groundwater is classified as a Principal or Primary Aquifer by the State as defined in 6 NYCRR § 360-1.2.(b)(10)(i) and (ii). Primary Aquifers are highly productive aquifers presently utilized as sources of water supply by major municipal water supply systems. Principal Aquifers are also highly productive aquifers that are not presently being used as intensively as a source of water supply for major municipalities at this time. Additionally, both Primary and Principal Aquifers are utilized by small municipalities, as well as private, commercial and institutional facilities and individuals.

Because they are largely contained in unconsolidated material, the high permeability of Primary and Principal Aquifers and shallow depth to the water table, makes these aquifers particularly susceptible to contamination. Section E.3 of the 2014 NYSDEC Design Standards for Intermediate-sized Wastewater Treatment Systems and the 2015 Design Standards for Wastewater Treatment Works in the Lake George Basin includes a Nitrate Advisory for Groundwater Discharges which indicates that additional protections may be

necessary to protect groundwater in soils with percolation rates greater than 10 mpi overlying Long Island Aquifers or NYS designated Primary and Principal Aquifers. In keeping with the DEC's protective direction pertaining to Primary and Principal Aquifers, facilities located in Primary and Principal Aquifer areas are not automatically eligible for the PCI GP. The wastewater treatment system proposed and its location will be reviewed using the criteria above and an aquifer delineation determination. The results will determine if the application under the PCI GP may proceed, or if the applicant must apply for and obtain an individual SPDES permit and have the engineering design and site plans for the proposed facility reviewed and approved by DEC.

PRIVATE/COMMERCIAL/INSTITUTIONAL SPDES PERMIT CONDITIONS:

Request for General Permit Authorization - This permit condition tells the applicant what must accompany the permit application.

Under this requirement, the applicant must submit a Design Certification form with the application form. The Design Certification form attests that:

the engineering design and site plan were completed by a professional engineer licensed to practice in New York in accordance with the 2014 NYSDEC Design Standards for Intermediate-sized Wastewater Treatment Systems, or for projects to be constructed in the Lake George watershed, the 2015 Design Standards for Wastewater Treatment Works in the Lake George Basin.

Direction regarding signing the application form will be in the application instructions. When a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit.

Changes were made to improve permit compliance. Added requirements include:

- an additional Design Certification form, described above, to be signed and stamped by the design engineer, and submitted with the application. This is a pre-construction certification; and
- an electronic copy of the engineering design and site plan to be submitted to DEC.

Department-validated General Permit Authorization – This permit condition specifies how the treatment system receives written confirmation by the Department prior to the start of work. This permit condition differs from the 2005 PCI GP by using the term “validate” from the NYSDEC Approval section on page 2 of the permit. The written confirmation is the facility-specific, Department-validated (and signed) PCI General Permit. Department-validation allows work to proceed and authorizes discharge from specific outfalls with a designated treatment system and design flow.

Authorization to Discharge – This permit condition specifies how the treatment system receives final approval to discharge by a PE's stamped and signed Post-Construction Certification (whether or not health department approval is required). Any deviation from the

stamped and certified plans must be noted in the set of "as-built" drawings, signed and stamped by a professional engineer and submitted to DEC.

This Condition is substantially the same as the requirement in the 2005 permit except it uses a post-construction certification in addition to the design certification. The Post-Construction Certification includes a designated date of discharge selected by the P.E. in consultation with the permittee. In addition, the permittee is required to submit as-built drawings to DEC in electronic format if modifications to the original design have been made.

Inspect Septic Tanks – This permit condition specifies when a septic tank must be pumped out and inspected. It also recommends who may conduct the inspection and requires that annual inspection records be kept for five years.

DEC believes that an annual inspection is a reasonable requirement for the proper operation of a septic tank, and protection of the downstream soil-based treatment system from clogging due to washed out solids, especially fats, oils and greases (FOG). The requirement to pump out sludge and scum is from 6 NYCRR § 750-2.8(d). The scum that floats on the liquid surface and the sludge that accumulates at the bottom of the septic tank must be prevented from escaping through the outlet or plugging the outlet filter or screen of the septic tank.

Permit Transfers - The most current permittee in DEC's records is responsible for compliance with all the permit terms and conditions in this General Permit, as well as the permit fee and all applicable state and federal laws and regulations.

It is important for DEC to know the identity of the current permittee and the permittee's contact information so that DEC can properly exercise its responsibility of compliance monitoring and communication of important regulatory information to the permittee. The current permittee must inform DEC 30 days prior to any change of ownership, as provided in PCI SPDES Permit Condition 10.

Forms - Forms that were part of the permit are now being referenced. This change provides DEC greater flexibility in making changes to those forms to more efficiently accomplish program goals. The referenced forms will be available on DEC's public website.