State of New Jersey

Department of Environmental Protection
Air Quality Permitting

General Permit

Stationary Non-Floating Roof Storage Tank(s)

Storing Volatile Organic Compounds (VOCs)

This General Permit allows for the construction, installation, reconstruction, modification and operation of single or multiple stationary non-floating roof storage tank(s) which are used for storing VOCs or a mixture of VOCs. All tanks within a single tank-capacity category whose contents are below the corresponding maximum vapor pressure limits, may be covered by a single General Permit. The Permittee then selects the General Permit Number within that category corresponding to the maximum annual throughput limit for the tank (or, in the case of multiple tanks, the sum of the throughputs for all tanks in the group), as required by the Permittee's operations. The tank size/ vapor pressure categories are as follows:

- Tanks with a maximum capacity of 20,000 gallons or less, the vapor pressure of the VOCs being stored shall be less than 11.1 psia (pounds per square inch absolute) at 70 degrees Fahrenheit;
- Tanks with a maximum capacity greater than 20,000 gallons, but less than or equal to 40,000 gallons, the vapor pressure of the VOCs being stored shall be less than 4.0 psia at 70 degrees Fahrenheit;
- Tanks with a maximum capacity of greater than 40,000 gallons, but less than or equal to 300,000 gallons, the vapor pressure of the VOCs being stored shall be less than 0.75 psia at 70 degrees Fahrenheit.

The potential-to-emit (PTE), maximum annual throughput limit for the tank(s) covered under this General Permit, and corresponding compliance plan requirements are established based on the General Permit Number selected by the Permittee on the Registration Form.

I. DEFINITIONS

The terms used in this General Permit shall have the meanings given to them in N.J.A.C. 7:27-8 and/ or N.J.A.C. 7:27-16, except as listed below:

- **Blending or mixing tank** means a tank where the material or components introduced into the tank are not the same in nature, physical composition, or concentration as the material withdrawn from the tank.

- **Floating roof** means an external or internal pontoon type or double-deck type roof resting on the surface of the liquid contents in a storage vessel, and equipped with a mechanism providing one or more tight seals in the space between the floating roof rim and the vessel shell throughout the entire vertical travel distance of the roof.

- **Gasoline Dispensing Facility** (includes retail and non-retail service stations) means a facility consisting of one or more stationary gasoline storage tanks together with dispensing devices used to fill vehicle fuel tanks.

- **Hazardous Air Pollutant (HAP)** means any air pollutant listed in or pursuant to Subsection (b) of Section 112 of the Federal Clean Air Act (42 U. S. C. §7412). See Subchapter 8, Table 2 for a detailed list of HAPs.

- **Vapor Pressure** means the pressure of the vapor phase of a substance, or the sum of the partial pressure of the vapor phase of individual substance in a mixture of substances, when in equilibrium with the non-vapor phase of the substance or substances.

- **Volatile Organic Compound (VOC)** means any compound of carbon (other than carbon monoxide, carbon dioxide, carbonic acid, metallic carbonates, metallic carbides, and ammonium carbonate) which participates in atmospheric photochemical reactions. This term does not include the compounds which EPA has excluded from its definition of VOC in the list set forth at 40 CFR 51.100(s)(1), which is incorporated by reference herein, together with all amendments and supplements. See the definition of VOC in Subchapter 8 for a detailed list of compounds excluded from the definition of VOC by EPA.

II. AUTHORITY

This General Permit is issued under the authority N.J.S.A .26:2C-9.2. This General Permit shall allow for inspection and evaluation to assure conformance with all provisions of N.J.A.C. 7:27 et seq. An opportunity for public comment on the General Permit was provided on February 7, 2000.

III. APPLICABILITY

This General Permit allows for the construction, installation, reconstruction, modification and operation of a stationary non-floating roof storage tank, or group of tanks, which are used for storing VOCs or a mixture of VOCs. All tanks covered by this General Permit must fall within a single size category that is defined by the tank capacity and maximum vapor pressure limits. These tank size/ vapor pressure categories are as follows:

- Tank(s) with a maximum capacity of 20,000 gallons or less, the vapor pressure of the VOCs being stored shall be less than 11.1 psia (pounds per square inch absolute) at 70 degrees Fahrenheit;
- Tank(s) with a maximum capacity greater than 20,000 gallons, but less than or equal to 40,000 gallons, the vapor pressure of the VOCs being stored shall be less than 4.0 psia at 70 degrees Fahrenheit;
- Tank(s) has a maximum capacity of greater than 40,000 gallons, but less than or equal to 300,000 gallons, the vapor pressure of the VOCs being stored shall be less than 0.75 psia at 70 degrees Fahrenheit.

IV. EXCLUSIONS

This General Permit cannot be used for:

- Tanks storing non-VOCs.
- Floating roof storage tanks.
- Blending or mixing tanks.
- Tanks equipped with a system, which replaces the air in the vapor space above the storage liquid with an inert gas.
- Tanks, which are heated to, or maintained at, above ambient temperature.
- Tanks, which are agitated, stirred, aerated, or mixed. A tank equipped with a pumped recirculation loop that discharges below the surface of the storage liquid is not excluded from using this General Permit.
- Tanks located at a Gasoline Dispensing Facility. Tanks located at Gasoline Dispensing Stations may choose to utilize the General Permit for Storage and Transfer of Service Station Fuels at Gasoline Dispensing Facilities - GP-004.
- Tanks, which are subject to any Maximum Achievable Control Technology (MACT) Standards [40 CFR 63] or National Emission Standard for a Hazardous Air Pollutant (NESHAPS) [40 CFR 61].
- When any of the following substances are being stored, or the concentration of these substances exceeds 0.25 percent by weight of any raw material or finished product. This restriction does not apply to the benzene constituent of gasoline.

Benzene (Benzol),
Carbon tetrachloride (Tetrachloromethane)
Chloroform (Trichloromethane),
Dioxane (1,4-Diethylene dioxide),
Ethylenimine (Aziridine),
Ethylene dibromide (1,2-Dibromoethane),
Ethylene dichloride (1,2-Dichloroethane),
1,1,2,2-Tetrachloroethane (sym Tetrachloroethane),
Tetrachloroethylene (Perchloroethylene)
1,1,2-Trichloroethane (Vinyl trichloride)
Trichloroethylene (Trichlorethene)

- Tanks storing any of the following Hazardous Air Pollutants (HAPs), as a pure substance, or as an ingredient in a mixture in any concentration. This restriction does not apply to the 1,3-Butadiene component of gasoline.

N-nitroso-N-methyl urea
Bis (chloromethyl) ether
Dimethyl sulfate
2-Nitropropane
1,4-Dichloro-2-butene
1,3-Propane sultone
Dichloroethyl ether
1,3-Butadiene
Ethylene dibromide

- Tanks storing any Hazardous Air Pollutants (HAPs), or if the total concentration of HAPs in the material or product being stored exceeds 0.25 percent by weight. This restriction does not apply to the HAP constituents of gasoline

V. TANK(S) SPECIFICATIONS & CONTROL DEVICE REQUIREMENTS

- Transfer of VOCs into a storage tank must be made through a submerged fill pipe or bottom fill pipe.

- For all General Permit Numbers other than ST-A1, ST-B1, or ST-C1 (which have a PTE of greater than 1000 lb/yr), VOC transfers to or from a delivery vessel (tank truck, tank trailer, railcar tanker), must be made with one of the following air pollution control apparatus operating during transfer:

    - A vapor balance system with all atmospheric vents positively closed during transfer,
    - A vapor balance system with a conservation vent adjusted to remain closed during transfer, or

- A vapor balance system with a hole of ¼ inch or less in diameter in the cap of the atmospheric vent.

VI. POTENTIAL TO EMIT

The following Tables provides the Permittee with the potential-to-emit, in tons per year (tpy) of VOCs that corresponds to the tank size/ vapor pressure category selected and the maximum annual throughput limit (gallons in any 12 month period). The potential-to-emit and annual throughput limit applies to a single tank (or the sum of the throughputs for a group of tanks), covered by this General Permit, and is based on the General Permit Number selected on the Registration Form.

Option A

Stationary Non-Floating Roof tank (or tanks), each of which has a maximum capacity of 20,000 gallons or less storing VOCs with vapor pressure less than 11.1 psia at 70 ^{o}F.

General Permit Number	VOCs Potential to Emit (tpy)	Throughput Limit* (gals in any 12 month period)
ST-A1	0.5	44,000
ST-A2	1	88,000
ST-A3	2	176,000
ST-A4	3	264,000
ST-A5	4	352,000
ST-A6	5	440,000

* - equal to the sum of the throughputs for all tanks covered by this General Permit.

Option B

Stationary Non-Floating Roof tank (or tanks), each of which has a maximum capacity less than or equal to 40,000 gallons, storing VOCs with vapor pressure less than 4.0 psia at 70 ^{o}F.

General Permit Number	VOCs Potential to Emit (tpy)	Throughput Limit* (gals in any 12 month period)
ST-B1	0.5	147,000
ST-B2	1	295,000
ST-B3	2	589,000
ST-B4	3	884,000
ST-B5	4	1,179,000
ST-B6	5	1,473,000

* - equal to the sum of the throughputs for all tanks covered by this General Permit.

Option C Stationary Non-Floating Roof tank (or tanks), each of which has a maximum capacity less than or equal to 300,000 gallons, storing VOCs with vapor pressure less than 0.75 psia at 70 ^{o}F.		
General Permit Number	VOCs Potential to Emit (tpy)	Throughput Limit* (gals in any 12 month period)
ST-C1	0.5	577,000
ST-C2	1	1,155,000
ST-C3	2	2,310,000
ST-C4	3	3,464,000
ST-C5	4	4,619,000
ST-C6	5	5,774,000

* - equal to the sum of the throughputs for all tanks covered by this General Permit.

VII. COMPLIANCE PLAN: Stationary Non-Floating Roof Tank (s) Storing Volatile Organic Compounds (VOCs)

Item No.	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action
1.	This equipment shall not cause any air contaminant, including an air contaminant detectable by the sense of smell, to be present in the outdoor atmosphere in such quantity and duration which is, or tends to be, injurious to human health or welfare, animal or plant life or property, or would unreasonable interfere with the enjoyment of life or property, except in areas over which the owner or operator has exclusive use or occupancy. [N.J.A.C. 7:27-5]	None	Permittee shall record in either a permanent bound logbook or in computer memories (date & time) when the operation of equipment has the potential to cause off-property effects. All records must be maintained on site for a period of 5 years. [N.J.A.C. 7:27-8:13(d)3]	Any operation of the equipment which may cause a release of air contaminant in a quantity or concentration which poses a potential threat to the public health, welfare, or the environment or which might reasonably result in citizen complaints shall be reported by the permittee as required by the Air Pollution Control Act. Permittee shall immediately notify the Department of any release by calling the Hotline at 1-877-927-6337. [N.J.S.A. 26:2C-19(e)]
2.	This General permit covers one or more Stationary Non-Floating Roof Storage Tanks that are listed in the registration form and which are used for storing VOCs or a mixture of VOCs. [N.J.A.C. 7:27-8.13(a)]	None	Permittee shall record in either a permanent bound log book or in readily accessible computer memories, each tank designation, dimensions and the capacity (gallons). These records shall be maintained for the life of each tank. [N.J.A.C 7:27-8.13(d)3]	None
3.	Permittee shall comply the combined maximum annual throughput (gallons in any 12 month period) for all tanks covered by this General Permit for the option chosen. The combined maximum annual throughput is the sum of the annual throughputs for all tanks covered by this General Permit. [N.J.A.C. 7:27-8.13(a)]	The permittee shall review for each product being stored, the monthly throughput (gallons) accounting records, to ensure maximum limits are not exceeded. The permittee shall calculate the combined maximum annual throughput by summing up all monthly throughputs (gallons) over the previous 12-month period. [N.J.A.C. 7:27-8.13(a)]	The permittee shall maintain all records on site for a period of 5 years, in either a permanently bound logbook or a readily accessible computer memory. Supporting documentation shall include records of tank contents and throughputs. [N.J.A.C. 7:27-8.13(d)3]	Permittee shall report any non-compliance within 3 working days after event in writing to the Regional Enforcement Office. [N.J.A.C. 7:27-8.13(d)4]

Item No.	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action
4.	Above ground storage tank(s) 2000 gallons or greater and exposed to the sun rays must be painted white or must be made of stainless steel construction. [N.J.A.C.7:27-16.2(a)1]	Permittee shall visually inspect the exterior condition of the tank(s) every 6 months. [N.J.A.C. 7:27-8.13(a)]	Permittee shall record in either a permanently bound log book or in readily accessible computer memories, exterior paint condition of each tank every 6 months. All records must be maintained on site for a period of 5 years. [N.J.A.C. 7:27-8.13(d)3]	Permittee shall repaint the tank(s) exterior white, if prior to a visual inspection, indications are that 30% or greater of the exterior conditions needs repainting. [N.J.A.C. 7:27-8.13(d)4]
5.	All components connected or attached to, or serving the equipment or control apparatus must be functioning properly and are being used in accordance with all conditions and provisions of this permit. [N.J.A.C. 7:27-8.3(e)]	None	None	None
6.	All storage tank(s) having a maximum capacity of 10,000 gallons or greater must be equipped with a conservation vent. [N.J.A.C. 7:27-16.2(b)]	Permittee shall inspect the conservation vent in accordance with manufacturer's specification. [N.J.A.C. 7:27-8.13(a)]	Permittee shall record in either a permanent bound logbook or in readily accessible computer memories, the result of each conservation vent inspection. All records must be maintained on site for a period of 5 years. [N.J.A.C. 7:27-8.13(d)3]	Permittee shall repair any malfunctioning conservation vent in accordance with manufacturer's specifications, prior to filling the tank. [N.J.A.C. 7:27-8.13(d)4]
7.	All storage tank(s) equipped with gauging and/or sampling system must be vapor-tight except when gauging or sampling is taking place. [N.J.A.C. 7:27-16.2(d)]	Permittee shall visually inspect the condition of the gauging or/and sampling system every 6 months. [N.J.A.C. 7:27-8.13(a)]	Permittee shall record in either a permanent bound logbook or in readily accessible computer memories, gauging or/and sampling system condition of tank (s) every 6 months. All records must be maintained on site for a minimum of 5 years. [N.J.A.C. 7:27-8.13(d)3]	Permittee shall repair any malfunctioning of the system in accordance with manufacturer's specifications. [N.J.A.C. 7:27-8.13(d)4]

Item No.	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action
8.	Transfer of any VOCs into any storage tank must be made through a submerged fill pipe or bottom fill pipe. [N.J.A.C. 7:27-16.4(b)]	Permittee shall inspect each tank and its connected or attached components to ensure the system is functioning properly, in accordance with manufacturer's specifications and instructions. [N.J.A.C. 7:27-8.13(a)]	Permittee shall record in either a permanent bound logbook or in readily accessible computer memories, the results of each fill pipe inspection. [N.J.A.C. 7:27-8.13(d)3]	Permittee shall repair any malfunctioning of the system in accordance with manufacturer's specifications. [N.J.A.C. 7:27-8.13(d)4]
9.	**For All Options except ST-A1, ST-B1, or ST-C1:** Transfer of any VOCs to or from a delivery vessel into storage tank must be made with the one of the following control apparatus operating during transfer: - A vapor balance system with all atmospheric vents positively closed during transfer, - A vapor balance system with a conservation vent adjusted to remain closed during transfer, or - A vapor balance system with a hole of ¼ inch or less in diameter in the cap on the atmospheric vent. [N.J.A.C. 7:27-16.4(c)]	The permittee shall inspect the vapor balance system to ensure there is no malfunctioning, in accordance with manufacturer's specifications and instructions. [N.J.A.C. 7:27-8.13(a)]	The Permittee shall record the results of the vapor balance system inspection. All records must be maintained on site for a period of 5 years. [N.J.A.C. 7:27-8.13(d)3]	Permittee shall repair any malfunctioning component of the vapor balance system in accordance with manufacturer's specifications. [N.J.A.C. 7:27-8.13(d)4]
10.	**For Option A only** The maximum capacity of each tank must be less than or equal to 20,000 gallons. For any product being stored the vapor pressure must be less 11.1 psia at 70 ^{o}F. [N.J.A.C. 7:27-8.13(a)]	The permittee shall review, for each product being stored, the MSDS and/or delivery records, vapor pressure data to ensure maximum limits are not exceeded. [N.J.A.C. 7:27-8.13(a)]	The permittee shall maintain all records on site for a period of 5 years, in either a permanent bound logbook or in readily accessible computer memories. Supporting documentation shall include product formulation data (MSDS), delivery records, vapor pressure data and maximum tank capacity. [N.J.A.C 7:27-8.13(d)3]	Permittee shall report any non-compliance within 3 working days after event in writing to the Regional Enforcement Office. [N.J.A.C. 7:27-8.13(d)4]

Item No.	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action
11.	**For Option B only** The maximum capacity of each tank must be less than or equal to 40,000 gallons. For any product being stored the vapor pressure must be less 4.0 psia at 70 ^{o}F. [N.J.A.C. 7:27-8.13(a)]	The permittee shall review, for each product being stored, the MSDS and/or delivery records, vapor pressure data to ensure maximum limits are not exceeded. [N.J.A.C. 7:27-8.13(a)]	The permittee shall maintain all records on site for a period of 5 years, in either a permanent bound logbook or in readily accessible computer memories. Supporting documentation shall include product formulation data (MSDS), delivery records, vapor pressure data and maximum tank capacity. [N.J.A.C 7:27-8.13(d)3]	Permittee shall report any non-compliance within 3 working days after event in writing to the Regional Enforcement Office. [N.J.A.C. 7:27-8.13(d)4]
12.	**For Option C only** The maximum capacity of each tank must be less than or equal to 300,000 gallons. For any product being stored the vapor pressure must be less 0.75 psia at 70 ^{o}F. [N.J.A.C. 7:27-8.13(a)]	The permittee shall review, for each product being stored, the MSDS and/or delivery records, vapor pressure data to ensure maximum limits are not exceeded. [N.J.A.C. 7:27-8.13(a)]	The permittee shall maintain all records on site for a period of 5 years, in either a permanent bound logbook or in readily accessible computer memories. Supporting documentation shall include product formulation data (MSDS), delivery records, vapor pressure data and maximum tank capacity. [N.J.A.C 7:27-8.13(d)3]	Permittee shall report any non-compliance within 3 working days after event in writing to the Regional Enforcement Office. [N.J.A.C. 7:27-8.13(d)4]