

Facility Name: **Vopak Corporation Savannah Inc.**
 City: Garden City
 County: Chatham
 AIRS #: 04-13-051-00058

Application #: TV-9205
 Date Application Received: October 22, 1996
 Date Application Deemed
 Administratively Complete: May 15, 1997
 Date of Draft Permit: April 3, 2002
 Permit No: 4226-051-0058-V-01-0

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Introduction

This narrative is being provided to assist the reader in understanding the content of the attached draft Part 70 operating permit. Complex issues and unusual items are explained herein simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being issued pursuant to: (1) Georgia Air Quality Act, O.C.G.A § 12-9-1, et seq. and (2) Georgia Rules for Air Quality Control, Chapter 391-3-1, and (3) Title V of the Clean Air Act Amendments of 1990. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Chapter I of Title 40 of the Code of Federal Regulations promulgated pursuant to the Federal Clean Air Act. The primary purpose of this permit is to consolidate and identify existing state and federal air requirements applicable to Vopak Corporation – Savannah Terminal and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. It initially describes the facility receiving the permit, the applicable requirements and their significance, and the methods for determining compliance with those applicable requirements. This narrative is intended as an adjunct for the reviewer and to provide information only. It has no legal standing. Any revisions made to the permit in response to comments received during the public participation and EPA review process will be described in an addendum to this narrative.

I. Facility Description**A. Facility Identification**

1. Facility Name:

Vopak Corporation – Savannah Terminal

2. Parent/Holding Company Name:

Vopak Corporation

3. Previous and/or Other Name(s):

Paktank Corporation

Panocean Southland

4. Facility Location:

Turner Street – Georgia Port Authority
Savannah, Georgia 31418

5. Attainment or Non-attainment Area Location:

Chatham County – Attainment area

6. Class I Area Impacts:

There are no Class I areas within 100 km of this facility.

B. Site Determination

Vopak Corporation – Savannah Terminal is under common control and two digit SIC's code are same. AFS No. 051-00058 is part of the same Title V site.

C. Existing Permits**Table 1: List of Current Permits as Amended**

Permit Number and/or Purpose of Issuance	Date of Issuance and Date of Amendments (if any)	Comments	
		Yes	No
5171-025-11156	April 13, 1993		X

Table 2: Comments on Specific Permits

Permit Number	Comments
	None.

D. Process Description

1. SIC Codes(s):

4226

2. Description of Product(s):

Petroleum products, chemical products and marketing terminal.

3. Overall Facility Process Description:

The Vopak Corporation – Savannah Terminal is a bulk terminal with a total storage capacity of approximately 1,498,965 barrels. The facility emission sources consist of 74 main regulated storage tanks, a truck loading rack with 7 bays, a rail car loading rack with 8 bays, a marine loading station, two process steam boilers, a process heater, an organic vapor recovery unit (VR01), a vapor destruction unit (VD01) and various fugitives and insignificant activities. Volatile organic compounds (VOC) emissions result primarily from loading trucks and storage tank losses. The facility's operating schedule is 24 hours per day and 7 days per week.

4. Overall Process Flow Diagram:

Process flow diagrams were submitted as attachments to the Title V application.

E. Regulatory Status

1. PSD/NSR

Total tank storage at this facility is approximately 63 million gallons, which is equal to about 1,500,000 barrels. PSD regulations name petroleum storage facilities with total capacities of greater than 300,000 barrels as one of the 28 named categories of sources whose annual emissions make them a PSD major source if they exceed 100 tons. Since Vopak is above this threshold, potential annual emissions for a pollutant emitted by this facility would only have to exceed 100 tons before it would be considered a major source for PSD purposes. Potential annual emissions of VOCs from this source have been calculated to be just over 700 tons. These calculations were made using the permitted emission rate for the terminal of 35 mg/liter of gasoline loaded with a maximum annual throughput of 1,909,000,000 gallons. This facility would be considered a major source under PSD regulations.

2. Title V Major Source Status by Pollutant

Table 3: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	✓			✓
PM ₁₀	✓			✓
SO ₂	✓			✓
VOC	✓	✓		
NO _x	✓			✓
CO	n/a			✓
TRS	n/a			✓
H ₂ S	n/a			✓
Individual HAP	✓	✓		
Total HAPs	✓	✓		

3. MACT Standards

One of the primary purposes of this permit is to limit the throughput of the source in order to avoid the applicability of the “National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)”, 40 CFR Part 63, Subpart R. The facility has chosen to limit its gasoline throughput in order to characterize itself as a bulk gasoline plant, avoiding bulk gasoline terminal status. The condition that contains this limit is Condition 3.2.1. (This limit will also allow the facility to avoid the applicability of 40 CFR Part 61 Subpart XX, “Standards of Performance for Bulk Gasoline Terminals”, and Georgia Air Quality Rule 391-3-1-.02(2)(cc).)

The following MACT standards, “National Emission Standards for Marine Tank Vessel Loading”, 40 CFR Part 63, Subpart Y, and “General Provisions of National Emissions Standards for Hazardous Air Pollutants”, 40 CFR Part 63, Subpart A, apply. The conditions that contain these limits are Conditions 3.3.6 and 2.2.1, respectively.

4. Program Applicability

Program Code	Applicable (y/n)
Program Code 6 - PSD	no
Program Code 8 – Part 61 NESHAP	no
Program Code 9 - NSPS	yes
Program Code M – Part 63 NESHAP	yes

Program Code	Applicable (y/n)
Program Code V – Title V	yes

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

There are no facility-wide emission limits for this source.

B. Applicable Rules and Regulations

Because the facility is subject to 40 CFR Part 63, Subpart Y, “National Emission Standards for Marine Tank Vessel Loading”, the facility is also subject to the applicable requirements of the 40 CFR Part 63 Subpart A, “General Provisions of National Emissions Standards for Hazardous Air Pollutants” that correspond to Table 1 of Subpart Y.

C. Compliance Status

This facility does not have any noncompliant units or groups. There were no Section 11 application forms included in the application.

D. Operational Flexibility

The facility has requested operational flexibility in their Title V application. However, there are no new rules, regulations or work practices that will be applicable to this source due to this request.

E. Permit Conditions

No other facility-wide conditions are included in the permit other than the general provisions in Part VIII, Rule 391-3-1-.02(2)(a), which applies to all air contaminant sources in the state.

In section 3.2 of the application, the facility has requested that the following conditions from their existing permit, 5171-025-11156 be eliminated: 3a, 3e, 4, 5, 9, and 18.

As support for the elimination of Condition 3a, Vopak has suggested that the storage tank T023, constructed in 1958, was not modified in a manner that would subject it to 40 CFR Part 60 Subpart Kb (referencing the April 12, 1996 EPA Applicability Determination (Control Number 96000127)), contrary to the Division’s determination on May 11, 1990. The facility states that change in the material stored does not cause NSPS Subpart Kb applicability.

Concerning the elimination of the remaining above-mentioned conditions, the facility will not be subject to 391-3-1-.02(2)(cc), “Bulk Gasoline Terminals”, because it has requested gasoline throughput limits of no more than 20,000 gallons per day.

The facility has also requested that the following conditions from its current permit be changed: 17, 19, 20 and 22. Vopak suggests Conditions 17, 19 and 20 be changed from requiring retention of records from 2 years to 5 years in accordance with Title V requirements. Changes to Condition 22 would allow storage of VOL in all tanks but T074, T075 and T076. These tanks would require prior written Division approval before storing VOL.

III. Regulated Equipment Requirements

A. Brief Process Description

The Vopak Corporation – Savannah Terminal is a bulk terminal with a total storage capacity of approximately 1,498,965 barrels. The facility emission sources consist of 74 main regulated storage tanks, a truck loading rack with 7 bays, a rail car loading rack with 8 bays, a marine loading station, two process stream boilers, a process heater, an organic vapor recovery unit (VR01), a vapor destruction unit (VD01) and various fugitives and insignificant activities. Volatile organic compounds (VOC) emissions result primarily from loading trucks and storage tank losses.

B. Equipment List for the Process

The following are the regulated storage vessels at the facility:

Unit ID	Description	Effective Installation Date	Capacity (gallons)	Roof Type
T001	Tank 1	1951	2,291,178	fixed
T002	Tank 2	1951	2,291,852	fixed
T003	Tank 3	1951	1,232,033	fixed
T004	Tank 4	1951	1,086,940	fixed
T005	Tank 5	1951	2,017,039	fixed
T006	Tank 6	1951	2,291,382	fixed
T007	Tank 7	1951	824,922	fixed
T008	Tank 8	1951	3,301,234	fixed
T009	Tank 9	1951	2,649,244	fixed
T010	Tank 10	1955	2,208,546	fixed
T011	Tank 11	1955	2,050,060	fixed with internal floating roof
*T012	Tank 12	1955	3,061,012	external floating
*T013	Tank 13	1955	3,062,459	external floating
T014	Tank 14	1955	2,050,526	fixed with internal floating roof
T015	Tank 15	1955	2,048,966	fixed with internal floating roof
T016	Tank 16	1955	825,420	fixed
T017	Tank 17	1955	825,873	fixed
T018	Tank 18	1955	826,309	fixed
T019	Tank 19	1955	824,036	fixed
T020	Tank 20	1955	3,085,619	fixed with internal floating roof
T021	Tank 21	1955	3,079,864	fixed with internal floating roof
T022	Tank 22	1958	3,081,117	fixed
T023	Tank 23	1958	201,776	fixed
T024	Tank 24	1958	205,957	fixed
T025	Tank 25	1958	205,948	fixed
T026	Tank 26	1958	205,947	fixed
T027	Tank 27	1958	192,173	fixed with internal floating roof
T028	Tank 28	1958	413,445	fixed
T029	Tank 29	1958	413,395	fixed
T030	Tank 30	1958	413,471	fixed
T031	Tank 31	1958	413,443	fixed
T032	Tank 32	1958	413,468	fixed

Unit ID	Description	Effective Installation Date	Capacity (gallons)	Roof Type
T033	Tank 33	1981	412,945	fixed
T034	Tank 34	1981	413,073	fixed
T035	Tank 35	1981	413,265	fixed
T036	Tank 36	1981	205,837	fixed
T037	Tank 37	1981	494,382	fixed
T038	Tank 38	1966	21,500	horizontal
T039	Tank 39	1966	21,500	horizontal
T040	Tank 40	1966	21,500	horizontal
T041	Tank 41	1966	21,500	horizontal
T042	Tank 42	1966	21,500	horizontal
T043	Tank 43	1966	21,500	horizontal
T044	Tank 44	1980	249,159	fixed
T045	Tank 45	1956	110,763	fixed
T046	Tank 46	1956	130,941	fixed
T047	Tank 47	10/1984	314,757	fixed
T048	Tank 48	11/1984	314,900	fixed
T049	Tank 49	1986	618,940	fixed
T050	Tank 50	1986	826,908	fixed
**T051	Tank 51	1987	490,016	fixed
T052	Tank 52	1987	490,041	fixed
T053	Tank 53	1989	122,364	fixed
T054	Tank 54	1989	106,522	fixed
T055	Tank 55	1989	206,995	fixed
T056	Tank 56	1974	1,453,940	fixed
T057	Tank 57	1958	902,800	fixed
T058	Tank 58	1958	1,115,756	fixed
**T059	Tank 59	1958	1,461,811	fixed
T060	Tank 60	1974	113,359	fixed
T061	Tank 61	1958	113,781	fixed
T062	Tank 62	1958	113,609	fixed
T063	Tank 63	1958	38,845	fixed
T064	Tank 64	1958	38,875	fixed
T065	Tank 65	1958	38,614	fixed
T066	Tank 66	1974	113,493	fixed
T069	Tank 69	1958	38,685	fixed
T070	Tank 70	1958	38,788	fixed
T071	Tank 71	1974	38,779	fixed
T072	Tank 72	1990	206,623	fixed
T073	Tank 73	1992	413,292	fixed
T074	Tank 74	1997	1,100,000	fixed
T075	Tank 75	2000	420,000	fixed
T076	Tank 76	2001	1,050,000	fixed

*Tanks T012 and T013 can also be operated with internal floating roofs.

** Tanks T051 and T059 are controlled by Vapor Destruction Unit VD01.

See Process Description and Section C for a complete list of regulated equipment.

C. Equipment & Rule Applicability

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
T001 through 10, 16, 17, 18, 19, 22 through 26, 28, 29, 30, 31, 32, 46, 61 through 65, 69, 70	Product storage tanks constructed before June 12, 1973.	391-3-1-.02(2)(pp), 391-3-1-.02(2)(vv)	3.4.9, 3.4.11, 6.2.8, 6.2.9, 6.2.10, 6.2.15		Fixed Roof
T056, 60, 66	Product storage tanks constructed from June 12, 1973 to May 18, 1978.	391-3-1-.02(2)(pp), 391-3-1-.02(2)(vv), 40 CFR 60 Subpart K	3.3.1, 3.4.9, 3.4.11, 6.2.8, 6.2.9, 6.2.10, 6.2.15		Fixed Roof
T033 through 37, 44	Product storage tanks constructed from May 19, 1978 to July 22, 1984.	391-3-1-.02(2)(pp), 391-3-1-.02(2)(vv), 40 CFR 60 Subpart Ka	3.3.2, 3.4.9, 3.4.11, 6.2.8, 6.2.9, 6.2.10, 6.2.15		Fixed Roof
T047 through 50, 52, 53, 54, 55, 72, 73	Product storage tanks constructed after July 22, 1984.	391-3-1-.02(2)(pp), 391-3-1-.02(2)(vv), 40 CFR 60 Subpart Kb	3.3.3, 3.4.9, 3.4.11, 6.2.8, 6.2.9, 6.2.10, 6.2.15		Fixed Roof
T071	Product storage tank	391-3-1-.02(2)(pp), 391-3-1-.02(2)(vv)	3.4.9, 3.4.11, 6.2.8, 6.2.9, 6.2.10, 6.2.15		Fixed Roof
T011, 14, 15, 20, 21, 27	Product storage tank	391-3-1-.02(2)(bb), 391-3-1-.02(2)(pp), 391-3-1-.02(2)(vv), 40 CFR 61 Subpart Y	3.3.4, 3.4.7, 3.4.9, 3.4.11, 5.2.7, 5.2.8, 5.3.2, 5.3.3, 5.3.4, 6.2.8, 6.2.9, 6.2.15		Fixed Roof with Internal Floating Roof
T012, 13	Product storage tank	391-3-1-.02(2)(nn), 391-3-1-.02(2)(pp), 391-3-1-.02(2)(vv), 40 CFR 61 Subpart Y	3.3.4, 3.4.8, 3.4.9, 3.4.11, 5.2.8, 5.2.9, 5.2.10, 5.3.2, 5.3.3, 5.3.4, 5.3.5, 6.2.8, 6.2.9, 6.2.15, 7.3.1		External Floating Roof
T038 through 43	Product storage tank	391-3-1-.02(2)(pp), 391-3-1-.02(2)(vv)	3.4.9, 3.4.11, 6.2.8, 6.2.9, 6.2.10, 6.2.15		Horizontal
T051	Product storage tank	391-3-1-.02(2)(bb), 391-3-1-.02(2)(pp), 391-3-1-.02(2)(vv), 40 CFR 60 Subpart Kb 40 CFR 61 Subpart Y	3.3.3, 3.3.4, 3.4.7, 3.4.9, 3.4.11, 5.2.2, 6.2.8, 6.2.9, 6.2.15	VD01	Fixed Roof Vapor Destruction Unit
T059	Product storage tank	391-3-1-.02(2)(bb), 391-3-1-.02(2)(pp), 391-3-1-.02(2)(vv), 40 CFR 61 Subpart Y	3.3.4, 3.4.7, 3.4.9, 3.4.11, 5.2.2, 6.2.8, 6.2.9, 6.2.15	VD01	Fixed Roof Vapor Destruction Unit
T074, 75, 76	Product storage tank		6.2.8, 6.2.9, 6.2.10, 7.3.2		Fixed Roof
BL01	Process steam boiler	391-3-1-.02(2)(b), 391-3-1-.02(2)(d), 391-3-1-.02(2)(g)	3.4.2, 3.4.3, 3.4.6, 6.2.13		
BL02	Process steam boiler	391-3-1-.02(2)(d), 391-3-1-.02(2)(g)	3.4.4, 3.4.5, 3.4.6, 6.2.13		
BL03	Process hot oil heater	391-3-1-.02(2)(d), 391-3-1-.02(2)(g)	3.4.4, 3.4.5, 3.4.6, 6.2.13		
BL04	Process hot oil heater	391-3-1-.02(2)(d), 391-3-1-.02(2)(g)	3.4.4, 3.4.5, 3.4.6, 6.2.13		
BL05	Process hot oil heater	391-3-1-.02(2)(d), 391-3-1-.02(2)(g)	3.4.4, 3.4.5, 3.4.6, 6.2.13		

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
LM01	Chemical product loading rack for marine vessels	40 CFR 61 Subpart BB, 40 CFR 63 Subpart Y	3.3.5, 3.3.6, 5.2.2, 5.2.5, 5.2.6, 5.3.1, 6.2.1, 6.2.2, 6.2.7	VD01	Vapor Destruction Unit
L01R through L04R, L06R and L15R	Chemical and petroleum product loading rack for rail cars	391-3-1-.02(2)(ss)	3.4.10, 5.2.5, 5.2.6, 5.3.1, 6.2.7		
L05R	Chemical and petroleum product loading rack for rail cars	391-3-1-.02(2)(ss), 40 CFR 61 Subpart BB	3.3.5, 3.4.10, 5.2.2, 5.2.5, 5.2.6, 5.3.1, 6.2.1, 6.2.2, 6.2.7	VD01	Vapor Destruction Unit
L08T	Gasoline loading rack for trucks	391-3-1-.02(2)(pp), 391-3-1-.02(2)(ss), 40 CFR 61 Subpart BB	3.3.5, 3.4.9, 3.4.10, 5.2.1, 5.2.5, 5.2.6, 5.3.1, 6.2.1, 6.2.2, 6.2.7, 6.2.11, 6.2.15	VR01	Organic Vapor Recovery Unit
L07TR, L10TR	Chemical and petroleum product loading rack for trucks or rail cars	391-3-1-.02(2)(ss)	3.4.10, 5.2.5, 5.2.6, 5.3.1, 6.2.7		
L11T, L13T, L14T	Chemical and petroleum product loading rack for trucks	391-3-1-.02(2)(ss)	3.4.10, 5.2.5, 5.2.6, 5.3.1, 6.2.7		

* Generally applicable requirements contained in this permit may also apply to emission units listed above.

Emission and Operating Caps –

Gasoline throughput at the facility will be limited to 20,000 gallons per day. This limit is being imposed at the facility's request in order to avoid bulk gasoline terminal status and the requirements associated with those facilities.

Applicable Rules and Regulations -

1. Equipment Federal Rule Standards:

40 CFR Part 60 Subpart K, "Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to May 19, 1978", applies to tanks T054, T060, T066, and T071. All four of the tanks have a capacity larger than the minimum 40,000 gallons and were constructed, reconstructed, or modified in 1974. 40 CFR Part 60 Subpart Ka, "Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and Prior to July 23, 1984", applies to tanks T033 through T037, and T044. All six of the tanks have a capacity larger than the minimum 40,000 gallons and were constructed, reconstructed, or modified in 1980 or 1981. Because these tanks do not comply with the control requirements of Subpart K or Ka, the material that may be stored in their tanks is restricted by Conditions 3.3.1 and 3.3.2.

40 CFR Part 60 Subpart Kb, "Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984", applies to tanks T047 through T055,

T072 and T073. All eleven of the tanks have a capacity larger than the minimum 40 m³ (10,566 gallons) and were constructed, reconstructed, or modified in October 1984 through 1992. Because these tanks do not comply with the control requirements of Subpart Kb, the material that may be stored in their tanks is restricted by Conditions 3.3.3.

40 CFR Part 61, Subpart Y, "Benzene Emissions From Benzene Storage Vessels", applies to storage tanks, not subject to NSPS Subpart K, Ka or Kb (Conditions 3.3.1 through 3.3.3), which store benzene. It will require these tanks to be equipped with a fixed roof with an internal floating roof, an external floating roof, a closed vent system with a control device, or an alternative means of emission limitation. These requirements are detailed in Conditions 3.3.4.

40 CFR Part 61 Subpart BB, "Benzene Emissions From Benzene Transfer Operations", applies to all racks loading benzene. This subpart requires each loading rack to have a vapor collection system and control device to reduce benzene emissions during loading by 98 percent. The loading of benzene shall be limited to vapor-tight tank trucks, vapor-tight railcars, and vapor-tight marine vessels equipped with vapor collection equipment that is compatible with and connected to the terminal's vapor collection system. These requirements are detailed in Condition 3.3.5.

40 CFR Part 63 Subpart Y, "Marine Tank Loading Operations", applies to the marine loading rack, LM01. It shall be equipped with a vapor collection system that is designed to collect HAP and VOC vapors displaced from marine tank vessels during vessel loading operations and to prevent HAP and VOC vapors collected at one loading berth from passing through another loading berth to the atmosphere. The rack shall also be equipped with a control device that reduces HAP and VOC emissions by 97 and 98 percent, respectively. These requirements are detailed in Condition 3.3.6.

2. Equipment SIP Rule Standards:

Ga. Rule (a), "General Provisions", applies to all tanks with a capacity of 40,000 gallons or more storing petroleum liquids with a vapor pressure greater than 1.5 psia. When these tanks are repainted, a heat-reflective paint shall be used. These requirements are detailed in Condition 3.4.1.

Ga. Rule (b), "Visible Emissions", applies to all sources of visible emissions. Visible emissions are limited by this rule to less than 40 percent opacity, actual visible emissions from all operations are expected to be much less than the allowable. These requirements are detailed in Condition 3.4.2.

Ga. Rule (d), "Fuel-burning Equipment", applies to all fuel burning sources, especially boilers and heaters. Particulate emissions (P), in pounds per BTU, are limited to $P = 0.7(10/R)^{0.202}$ (where R = heat input of fuel-burning equipment in million BTU per hour) for boiler BL01 and $P = 0.5$ for boiler BL02 and process heater BL03. These requirements are detailed in Conditions 3.4.3 and 3.4.4. Also, BL02 and BL03 are limited to opacities less than or equal to 20 percent, except for one six-minute period per hour of not more than 27 percent opacity. These requirements are detailed in Condition 3.4.5.

Ga. Rule (g), "Sulfur Dioxide", applies to all fuel burning sources, namely the drying ovens and heaters. Rule (g) limits the sulfur content of fuel burned to less than 2.5 percent by weight. These requirements are detailed in Condition 3.4.6.

Ga. Rule (bb), "Petroleum Liquid Storage", applies to all tanks with a capacity of 40,000 gallons or more that store product with a vapor pressure greater than 1.52 psia. These tanks shall be equipped with a floating roof or a control device of equivalent control efficiency. These requirements are detailed in Condition 3.4.7.

Ga. Rule (nn), "VOC Emissions from External Floating Roof Tanks", applies to all external floating roof tanks with a capacity of 40,000 gallons. These tanks shall not store petroleum liquids unless specific secondary seal and closure device requirements are met. Openings (except automatic bleeder vents, rim space vents and leg sleeves) are to be covered unless in use and projections are to remain below the liquid surface at all times. These requirements are detailed in Condition 3.4.8.

Ga. Rule (pp), "Bulk Gasoline Plants", applies to storage tanks with capacities greater than 2,000 gallons that receive or dispense gasoline. These tanks must be equipped with a submerged fill line, a fill line with a discharge opening at the tank bottom, and a vapor balancing system. These requirements are detailed in Condition 3.4.9.

Ga. Rule (ss), "Gasoline Transport Vehicles and Vapor Collection Systems", applies to tanks, loading racks and vehicles receiving and dispensing gasoline. Storage tanks must adhere to specific pressure requirements and transport vehicles must be vapor-tight during loading or unloading operations. Both tanks and vehicles must be checked for leaks and repaired, if any are found. These requirements are detailed in Condition 3.4.10.

Ga. Rule (vv), "Volatile Organic Liquid Handling and Storage", applies to storage tanks with capacities greater than 4,000 gallons. Rule (vv) limits the transfer of VOL other than gasoline from a delivery vessel to a storage tank unless the tank has submerged fill lines. These requirements are detailed in Condition 3.4.11.

D. Compliance Status

Section 11.10 forms were not submitted by the facility indicating noncompliance with any Federal or State rules. Such rules are covered under section VIII in the permit.

E. Operational Flexibility

Storage tanks T012 and T013 are external floating roof tanks that can also be operated with internal floating roofs. No new rules, regulations, emission rates, work practice standards, or operating limitations will be required by the use of these tanks in that configuration.

F. Permit Conditions

- 3.3.1 through 3.3.3 Establishes maximum vapor pressure limits for the materials stored in tanks subject to 40 CFR 60 Subpart K, Ka and Kb in order to avoid applicability to the control requirements of these standards.
- 3.3.4 Establishes requirements for tanks storing benzene as per 40 CFR Part 61 Subpart Y. This condition applies to tanks that are not subject to Conditions 3.3.1, 3.3.2, or 3.3.3. This condition was not included on permit no. 5171-025-11156. It is being included in this permit for further clarification of applicable requirements.
- 3.3.5 Establishes requirements for the receiving and dispensing of benzene as per 40 CFR Part 61 Subpart BB. This condition was not included on permit no. 5171-025-11156. It is being included in this permit for further clarification of applicable requirements.
- 3.3.6 Establishes requirements for marine vessel loading rack, LM01, as per 40 CFR Part 63 Subpart Y. This condition was not included on permit no. 5171-025-11156. It is being included in this permit for further clarification of applicable requirements.
- 3.4.1 Establishes Ga. Rule (a). This condition was not included on permit no. 5171-025-11156. It is being included in this permit for further clarification of applicable requirements.
- 3.4.2 Establishes Ga. Rule (b). This condition was included on permit no. 5171-025-11156 and Condition 3b.
- 3.4.3 through 3.4.5 Establishes Ga. Rule (d). This condition was included on permit no. 5171-025-11156 as Condition 3c.
- 3.4.6 Establishes Ga. Rule (g). This condition was not included on permit no. 5171-025-11156. It is being included in this permit for further clarification of applicable requirements.
- 3.4.7 Establishes Ga. Rule (bb). This condition was included on permit no. 5171-025-11156 as Condition 3d.
- 3.4.8 Establishes Ga. Rule (nn). This condition was included on permit no. 5171-025-11156 as Conditions 3f and 11.
- 3.4.9 Establishes Ga. Rule (pp). This condition was not included on permit no. 5171-025-11156. It is being included in this permit for further clarification of applicable requirements.
- 3.4.10 Establishes Ga. Rule (ss). This condition was not included on permit no. 5171-025-11156. It is being included in this permit for further clarification of applicable requirements.

- 3.4.11 Establishes Ga. Rule (vv). This condition was not included on permit no. 5171-025-11156. It is being included in this permit for further clarification of applicable requirements.

IV. Testing Requirements (with Associated Record Keeping and Reporting)**A. General Testing Requirements**

In accordance with 40 CFR Part 60.113, 60.115a, 60.116b, and 61.276, the permit requires the facility to determine the maximum true vapor pressure for subject tanks using Methods approved by the director. The facility is required to conduct a performance test at any specified emission point when so directed by the Division. The test results must be submitted within 30 days of the completion of the testing. Performance and compliance tests must be conducted and data reduced in accordance with applicable procedures and methods. Before any performance test is performed, a written notification and test plan will be submitted.

B. Specific Testing Requirements

None applicable.

V. Monitoring Requirements (with Associated Record Keeping and Reporting)**A. General Monitoring Requirements**

The permit requires that any monitoring system installed be in continuous operation except when under repair, and that maintenance or repair be conducted in an expedient manner.

Written reports of deviations from the applicable limitations or standards will be submitted semi-annually. Each report will include: total process operating time, the magnitude of all deviations, corrective action, the nature and cause of any malfunction. Files of all measurements, monitoring devices, and performance testing measurements; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices. These files are required to be maintained for a period of at least five (5) years.

B. Specific Monitoring Requirements**1. Individual Equipment:****a. Specific monitoring requirements**

Condition 5.2.1 requires the installation of a breakthrough monitor and interlock system to continuously monitor and indicate the hydrocarbon concentration at the outlet of the organic vapor recovery unit VR01 and prohibits loading when breakthrough is detected in order to prevent excess emissions during gasoline loading operations and loading of other petroleum and non-petroleum products.

To prevent excess VOC and HAP emissions during benzene transfer operations and marine tank loading operations, subject to 40 CFR 61 Subpart BB and 40 CFR 63 Subpart Y, respectively, Condition 5.2.2 requires the installation of a UV beam sensor or thermocouple to continuously monitor the presence of a flame at the pilot light of vapor destruction unit VD01. Condition 5.2.4 requires the installation of a monitoring device to measure and record the vent flow rate of each by-pass line once every 15 minutes using a flow indicator. Conditions 5.2.5 and 5.2.6 establishes monthly leak inspections of the vapor collection system, vapor processing system, and loading racks during the loading of tank truck, rail cars and marine tank vessels.

To ensure that loading operations occur within a vapor-tight system, Condition 5.2.3 requires the installation of a device to continuously measure the pressures and the vacuums of the terminal's vapor collection system with an audible and visual alarm system.

In order to comply with federal storage tank requirements as defined in 40 CFR 60 Subpart Kb and 40 CFR 61 Subpart Y, Conditions 5.2.7 and 5.2.8 require visual inspections of storage tanks in order to determine the physical integrity of the roofs (internal or external) and the seals (primary and/or secondary) and repair them, if necessary. Conditions 5.2.9 and 5.2.10 require the measurement of gaps areas and

maximum gap widths on tanks with external floating roofs and repairs if gap measurements do not meet the standard specified by 40 CFR 61.272(b)(4).

b. Record keeping for monitoring

Condition 5.3.1 requires records to be kept of the monthly leak inspections to ensure compliance with the requirements of Conditions 5.2.5 and 5.2.6.

Conditions 5.3.2 and 5.3.3 require records to be kept of any failures detected during the inspection and any repairs to ensure compliance with the requirements of Conditions 5.2.7 and 5.2.8.

c. Reporting for monitoring

Condition 5.3.4 requires the notification of the Division if the facility fills or refills a storage tank that requires inspection to ensure compliance with the requirements of Conditions 5.2.7 and 5.2.8.

Condition 5.3.5 requires an annual report of measurements made in accordance to ensure compliance with the requirements of Condition 5.2.9.

2. Equipment Groups (all subject to the same monitoring requirements):

None applicable.

VI. Other Record Keeping and Reporting Requirements

A. General Record Keeping and Reporting Requirements

Records are required to be retained for a period of five years. The records are required to be kept in a permanent form suitable for inspection and submission to the Division and EPA. The permit requires reporting of any deviations as indicated by the required monitoring to be reported every six months. A requirement to promptly report upset conditions resulting in lengthy excess emissions is also included.

B. Specific Record Keeping and Reporting Requirements

1. Plant wide

Condition 6.2.1 requires the retention of records of continuous monitoring data to ensure compliance with the requirements of Condition 5.2.1 and 5.2.2.

In order to ensure compliance with the requirements of Condition 3.2.1 limiting the daily gasoline throughput of the facility, Condition 6.2.2 and 6.2.3 requires the maintenance of a daily log of all petroleum liquids for all loading racks and the calculation of the total throughput of petroleum liquids handled during that day. The facility must notify the Division if the throughput exceeds the limit established in this permit and/or if any petroleum liquid is handled whose throughput is not allowed by this permit.

Condition 6.2.12 requires an annual report of the facility's HAP control efficiency based on actual throughput to ensure the facility is in compliance with the control efficiency as required by 40 CFR 63 Subpart Y and specified in Condition 3.3.6.

To ensure that the facility is using fuel that complies with the sulfur content limit expressed in Ga. Rule (g), Condition 6.2.13 requires the retention of fuel oil certificates for any fuel oil combusted in the boilers. The process heaters BL03, BL04 and BL05 burn only natural gas that inherently complies with Rule (g).

2. Individual Equipment

To ensure that loading operations occur in a vapor-tight system as specified by 40 CFR 61 Subpart BB and 40 CFR 63 Subpart Y, Conditions 6.2.4 and 6.2.5 require notification of and records to be kept of each shutdown, malfunction and maintenance on the vapor control system. Condition 6.2.6 requires the maintenance of continuous records of all periods flow bypasses a control device, repair on car-sealed valves or a change in their position, and any pressure vacuum changes that activate the vapor collection system's audible and visual alerts. Condition 6.2.7 requires vapor tightness documentation to be kept at the terminal of each tank truck, rail car and marine tank vessel that loads at the facility.

In order to comply with federal and state storage tank requirements, 40 CFR 60 Subparts K, Ka, Kb, 40 CFR 61 Subparts Y and BB and Ga. Rules (bb), (pp) and (vv) (as specified

in Conditions 3.3.1 through 3.3.5, 3.4.7 and 3.4.11), Condition 6.2.8 requires a record of the storage tank dimensions, the information of the products stored in these tanks (i.e., period of storage and maximum true vapor pressure) to be maintained at the facility, and that the tanks are equipped with submerged fill lines.

To ensure that the facility's storage tanks are compliant with the federal and state requirements, Condition 6.2.9 requires the Division to be notified if any air pollution control equipment is installed or removed from a storage tank. Condition 6.2.10 requires the Division to be notified if benzene is received by or dispensed through an uncontrolled storage tank or loading rack.

Condition 6.2.11 requires the facility to determine the control efficiency of benzene of the organic vapor recovery unit, VR01, and maintain a record of this; thus, ensuring compliance with the reduction in benzene emissions as required by 40 CFR 61 Subpart BB and specified in Condition 3.3.5b.

Condition 6.2.14 requires the vapor-tightness of tank trucks, railcars and marine vessels be maintained through vapor-tightness documentation and loading of products at a specified pressure.

Condition 6.2.15 requires the maintenance of records to ensure that gasoline transfer operations are occurring between storage tanks and truck tanks and trailers that are vapor-tight and leak-free.

Please note: Boilers BL01, BL02 and BL03 do not require periodic monitoring due to the use of only natural gas and No. 2 fuel oil. These fuels are clean burning and unlikely to exceed opacity or particulate matter limits.

VII. Specific Requirements

A. Operational Flexibility

- Storage tanks T012 and T013 may be operated with either external floating roofs or internal floating roofs. This operational flexibility does not require any additional rules, regulations, work practice standards or emission limits. This flexibility is incorporated by Condition 7.3.1.
- Storage tanks T074, T075 and T076 may be used to store volatile organic liquids (VOL). This operational flexibility does not require any additional rules, regulations, work practice standards or emission limits. This flexibility is incorporated by Condition 7.3.2.

B. Alternative Requirements

- Not applicable.

C. Insignificant Activities

- The insignificant activities are listed in Appendix B of the Title V operating permit. This list was created from Section 4.10 of the Permittee's permit application.

D. Temporary Sources

- Not applicable.

E. Short-Term Activities

- Not applicable.

F. Compliance Schedule/Progress Reports

- Not applicable.

G. Emissions Trading

- Not applicable.

H. Acid Rain Requirements

- Not applicable.

I. Prevention of Accidental Releases

- Not applicable.

J. Stratospheric Ozone Protection Requirements

- Not applicable.

K. Pollution Prevention

- Not applicable.

L. Specific Conditions

- Not applicable.

VIII. General Provisions

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.

Addendum to Narrative

The Vopak Corporation Savannah Inc. submitted comments on the draft permit, which was proposed on April 22, 2002. The comments were received on May 23, 2002. These comments and EPD's responses are provided in the paragraphs that follow.

1. Comment: State facility name as "Vopak Terminal Savannah Inc."
Response: Facility name has been changed as requested above.
2. Comments: Change Condition 1.1 to state "This facility includes a storage tank farm, tank truck and rail car loading racks and a marine loading dock."
Response: This change was made to Condition 1.1.
3. Comment: Change Condition 1.2 to state that the facility, under the ownership of the Paktank Corporation, changed its name to "Vopak Corporation Savannah Inc."
Response: This information is now reflected in Condition 1.2.
4. Comment: Change Condition 1.3 to reflect that the facility is a "for hire" terminal, has 7 tank truck loading racks, and three process heaters.
Response: The changes and additional information were incorporated into Condition 1.3.
5. Requested changes to Table 3.1.
Comments:
 - (i) ID No. T001, etc.: Add tanks T045, 57-58, and 71.
 - (ii) ID No. T056, 60, etc.: Delete T077. Change the date from "... 1973" to "... 1978".
 - (iii) ID No. T033-37, 44: Change the date from "... 1973" to "... 1978".
 - (iv) ID No. T047 through 55, 72, 73: Delete T051. Change date to "July 22" to "July 23".
 - (v) ID No. T051: Add Condition 5.2.2. Remove Condition 6.2.10 that only applies to uncontrolled transfer or storage of benzene. T051 is controlled by VD01.
 - (vi) ID No. T059: Remove Condition 5.2.3 that applies to tanks with internal floating roofs.
 - (vii) ID No. BL03: Add Condition 6.2.13.
 - (viii) Add Condition 6.2.2 (limiting gasoline throughput at the facility to less than 20,000 gallons) to the following ID Nos.: L01R-L04R, L15R, L0TR, L10TR, L11T, L13T, and L14T.
Response:
 - (i) All tanks were added to the table. T071 was added a separate reference due to its 1974 installation date.
 - (ii) These changes were made.
 - (iii) This change was made.
 - (iv) These changes were made.
 - (v) These changes were made.
 - (vi) This change was made.
 - (vii) This change was made. (Reference to this condition was also added to ID Nos. BL04 and BL05.)
 - (viii) These changes were not made. These racks are uncontrolled and subject only to Ga. Rule (ss). Gasoline transfer must be made through a controlled loading rack. See Condition 5.2.1.

6. Comment: Add the following to the end of Condition 3.3.1, 3.3.2 and 3.3.3: "...unless the tank is equipped with an internal floating roof or other appropriate control device in compliance with 391-3-1-.02(2)(bb)."
- Response: This statement cannot be added because these tanks are not presently equipped with internal floating roofs nor has the facility stated that these tanks can alternatively operated in this manner at this time. The initial Title V permit cannot be used to authorize construction of new emission sources or modification/reconstruction of existing sources. If the facility desires to modify a tank, the appropriate application forms must be submitted and it will be handled as an amendment to the Title V permit.
7. Comments: (i) Add Condition 3.3.7: "The Permittee shall comply with the above referenced sections 3.3.4, 3.3.5, and 3.3.6 for each tank not referenced in Table 3.1 above that has been modified to meet the control requirements referenced under 391-3-1-.02(2)(bb) and meet the applicability requirements under 40 CFR Part 61 Subpart Y and 40 CFR Part 63 Subpart Y."
- (ii) Add Condition 3.4.8 (facility stated "3.3.8" in error): "The Permittee shall comply with the above referenced sections 3.4.9 and 3.4.10, for each tank not referenced in Tale 3.1 above that has been modified to meet the control requirements referenced under 391-3-1-.02(2)(bb) and meet the applicability requirements under 391-3-1-.02(2)(pp) and 391-3-1-.02(2)(ss)."
- Response: The requested language was not added to either condition. Please see the Response to Comment 6.
8. Comment: Add references to process heaters BL04 and BL05 to Conditions 3.4.4 and 3.4.5.
- Response: These references were added.
9. Comment: Add to Condition 3.4.7: "...must have a floating roof, be controlled by Vapor Destruction Unit VD01, or been fitted with control equipment demonstrated to have control efficiency equivalent to greater than required by 391-3-1-.02(2)(bb)(1)(i) and approved by the Director".
- Response: This language was incorporated into Condition 3.4.7.
10. Comment: Add to Condition 5.2.1: "The Permittee, when loading gasoline or benzene, shall..."
- Response: The following language was added to Condition 5.2.1: "The Permittee, if loading gasoline or benzene, shall..."
11. Comment: Add to Condition 5.2.2 and 5.2.4: "The Permittee, when loading gasoline, benzene, or any HAP subject to the requirements of 40 CFR 63.560 shall..."
- Response: The requested language was not added to the condition: The condition applies to the loading of any material that has the potential to create either HAP or VOC emissions.
12. Comment: Add to Condition 5.2.3: "The Permittee, when loading any HAP subject to the requirements of 40 CFR 63.560 shall install..."
- Response: The requested language was not added to the condition. The condition has been modified as follows: "The Permittee shall install, calibrate, operate, and maintain, according to manufacturer's instructions, a device, acceptable to the Director, to continuously measure the pressures and vacuums of the terminal's vapor collection system at all points from delivery tank

to vapor collection (liquid manometer, magnehelic, or equivalent instrument). The system must verify that no vapor releases occur prior to collection. If loading benzene, an audible and visible alarm system shall be installed that is activated when the pressure vacuum specified in Condition 3.3.5d is not attained. Each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.”

The facility will only be required to install the audible and visible alarm if loading benzene.

13. Comment: Add to Condition 5.2.5: “Each calendar month, the vapor collection system, the vapor process system and each loading rack, when loading gasoline or benzene, shall...”
- Response: The requested language was not added to the condition: The inspections should be completed in order to ensure that there are no potential HAP or VOC leaks.
14. Comment: Add to Condition 5.2.6: “When loading gasoline, benzene or any HAP subject to 40 CFR 63.560, shall...”
- Response: The requested language was not added to the condition. This condition not only ensures that there are no unintended emissions of HAP - it also applies to potential emissions of VOC as well. The facility’s request would leave VOCs, other than those mentioned, not subject to this condition.
15. Comment: Change the reporting period of Condition 6.1.3 and 6.1.4 from quarterly to semi-annually. The facility could not locate a specific regulatory requirement for quarterly reporting and would find this reporting frequency burdensome.
- Response: The reporting periods for Conditions 6.1.3 and 6.1.4 were changed and a separate reporting requirement for benzene, Condition 6.2.16, was added as follows:
- “The Permittee, if loading and/or storing benzene, shall submit the information, as specified by 40 CFR 63.305(f) and/or 40 CFR 61.275(e), respectively, for each quarterly period ending March 31, June 30, September 30 and December 31 of each year. All reports shall be postmarked by the 30th day following the end of each reporting period, April 30, July 30, October 30 and January 30, respectively. In the event that there have not been any excess emissions, exceedances, excursions or malfunctions during a reporting period, the report should so state.”
16. Comment: (i) Add to Condition 6.1.6: “Where applicable, the Permittee shall...”
(ii) Adding language to Section 7.1. (Facility requests a Condition 7.1.2 be added.)
- Response: (i) Condition 6.1.6 has been changes to refer to “required” measurements.
(ii) This language was not added. The initial Title V permit cannot be used to authorize construction of new emission sources or modification/reconstruction of existing sources. If the facility desires to modify a tank, the appropriate application forms must be submitted and it will be handled as an amendment to the Title V permit.
17. Comment: Add to Condition 6.1.7(b)(ii): “...as specified in Condition 5.2.4 when loading gasoline, benzene or any HAP subject to the requirements of 40 CFR 63.560.”
- Response: This requested language was not added. Please see the Response to Comment 11.
18. Comment: Add to Condition 6.1.7(b)(iv): “...as described in Condition 5.2.3 when loading any HAP subject to the requirements of 40 CFR 63.560.”

- Response: This requested language was not added. Please see the Response to Comment 12.
19. Comment: Add to end of the first sentence of Condition 6.2.4: "...when loading gasoline, benzene or any HAP subject to the requirements of 40 CFR 63.560..."
- Response: This requested language was not added. Please see the Response to Comment 14.
20. Comment: Adding language to Condition 6.2.5 and 6.2.6 limiting the condition's applicability only to situations when loading gasoline, benzene or HAP "subject to the requirements of 40 CFR 63.560".
- Response: This requested language was not added. These conditions ensure that the facility is maintaining its air pollution control devices and informs the Division if a shutdown, malfunction or maintenance has occurred. This record-keeping requirement is not dependant upon the type of material loaded at the facility.
- The following modification was made to Condition 6.2.6.c: "If loading benzene, all periods when...".
21. Comment: Adding language to Condition 6.2.7 limiting the condition's applicability only to situations when loading gasoline, benzene or HAP "subject to the requirements of 40 CFR 63.560".
- Response: This requested language was not added. The following language was added to this condition: "When utilizing the vapor control system for loading gasoline, benzene, or any marine tank vessel, the Permittee shall...". 40 CFR 63.567(i) requires all marine tank vessels to have this information kept.
22. Comment: Adding references to process heaters BL04 and BL05 to Condition 6.2.13.
- Response: These references were added.
23. Comment: Adding language to Condition 6.2.14 limiting the condition's applicability only to situations when loading gasoline, benzene or HAP "subject to the requirements of 40 CFR 63.560".
- Response: This requested language was not added. The following language was added to this condition: "When loading gasoline, benzene, or any marine tank vessel, ...".
24. Comment: Changes to Section 7.3 as follows:
- (i) Change the first sentence of Condition 7.3.1 to state: "Storage tanks referenced in Table 3.1 by description as fixed roof tanks may be operated as internal floating roof tanks. ..."
- (ii) Add a condition to this section stating: "Storage tanks referenced in Table 3.1 by description as internal or external floating roof tanks may be operated as fixed roof tanks. In the event of their operation in this configuration, these tanks will not be subject to Condition 5.2.7 in addition to those listed in Section 3.1 and Condition 3.4.7 will be replaced by Condition 3.4.11."
- Response: The requested language was not added. Please see the Response to Comment 7.