

## PORT EVERGLADES TARIFF NO. 12

### Item No. 1072–Petroleum & Liquefied Petroleum Gas Terminal Facilities.

*Issue No. 3*

*Effective Date: October 1, 2023*

[I] Design, Installation, Operation, Testing, and Maintenance

Facility Operators will design, install, operate, test, and maintain Petroleum Terminal Facilities located within Port Everglades in accordance with Chapter 62-762, F.A.C., and other county, state, and federal regulations as applicable.

The most current editions of the Florida Fire Prevention Code (FFPC) and its applicable adopted National Fire Protection Association Standards, including, but not limited to NFPA 30 "Flammable and Combustible Liquids Code," NFPA 58 "Liquefied Petroleum Gas Code," NFPA 72 "National Fire Alarm Code," and the following additional requirements as set forth in section [II] below, will apply to the design, installation, operation, testing, and maintenance of Petroleum and Liquefied Petroleum Gas (LPG), Liquefied Natural Gas (LNG), and Compressed Natural Gas (CNG) Terminal Facilities located within Port Everglades.

[II] Additional Fire Prevention-Related Requirements for Port Everglades Petroleum LPG, LNG, and CNG Terminal Facilities.

Semifixed Foam Extinguishing Systems:

Semifixed foam extinguishing systems are required for all Terminal Storage tanks (excluding tanks covered by NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages) in which Class I, liquids are stored at atmospheric pressure. The requirement for a semifixed foam extinguishing system does not apply to storage tanks with a working capacity of less than 10,000 barrels (420,000 gallons), unless required by local, state, or federal law or regulations.

- a. Fire fighting foam systems must be designed to operate with one percent (1%) or three percent (3%) alcohol-resistant fire fighting foam or an alternative foam type approved by the Broward Sheriff's Office Department of Fire Rescue and Emergency Services, Fire Marshal's Office.

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- b. Fire fighting foam system designs must not exceed the capabilities of the Broward Sheriff's Office, Department of Fire Rescue and Emergency Services fire apparatus, hose lines, equipment, or the water supply capabilities of the Port Everglades Department.
- c. The maximum allowable pressure demand for all water-based fire suppression systems must not exceed 150psi at the fire truck through the fire department connection. The design pressure at the fire department connection should stay between 80-120psi.
- d. Fire department connection locations will be determined by the Broward Sheriff's Office Department of Fire Rescue and Emergency Services, Fire Marshal's Office.

**Fire Department Connections (FDC):**

- a. Fire department connections shall be UL Listed.
- b. Fire department connections for semifixed foam suppression systems shall be 5" storz type connections with a check valve and drain to facilitate drain down after operations are complete.
- c. Fire department connections for foam deluge systems must be standard fire department siamese type connections consisting of (2) 2 ½" diameter female hose connections (N.S.T.) mounted to a disconnectable 5" storz connection. This connection arrangement allows for connection using 2 ½" standard couplings or 5" storz couplings.
- d. The maximum allowable pressure demand for all water-based fire suppression systems must not exceed 150psi at the fire truck through the fire department connection. The design pressure at the fire department connection should stay between 80-120psi.
- e. Fire department connection locations will be determined by the Broward Sheriff's Office Department of Fire Rescue and Emergency Services, Fire Marshal's Office.
- f. Fire department connection signage must be provided at every fire department connection.

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- g. Fire department connections for foam deluge systems must include signage identifying which load rack or structure they protect. The letters shall be a minimum of 2” in height. The sign must have a red background with white lettering. The sign must be mounted directly above or adjacent to the fire department connection.
- h. Fire department connection signage for semifixed foam suppression systems on petroleum storage tanks must meet the following requirements:
  - i. Tank Number in letters a minimum of 1” in height. The remainder of lines must be a minimum of ¾” in height. The sign must have a red background with white lettering. The sign must be mounted directly above or adjacent to the connection point.
  - ii. Under the tank number, the following information must be provided in this order: System Demand, Foam Required, Design Density, Minimum Discharge Time, Type of Protection (full surface or rim), Product, Tank Diameter, Tank Height, Roof type. (See design example provided below.)

<p style="text-align: center;"><b><u>TANK 115</u></b></p> <p style="text-align: center;"><b><u>SYSTEM DEMAND = 791 GPM @ 77 PSI</u></b></p> <p style="text-align: center;"><b><u>FOAM REQUIRED = 1306 GALLONS</u></b></p> <p style="text-align: center;"><b><u>DESIGN DENSITY = 0.1 GPM/SQ.FT.</u></b></p> <p style="text-align: center;"><b><u>MINIMUM DISCHARGE TIME = 55 MIN</u></b></p> <p style="text-align: center;"><b><u>FULL SURFACE PROTECTION</u></b></p> <p style="text-align: center;"><b><u>PRODUCT = ETHANOL</u></b></p> <p style="text-align: center;"><b><u>TANK DIAMETER = 100 FT</u></b></p> <p style="text-align: center;"><b><u>TANK HEIGHT = 40 FT</u></b></p> <p style="text-align: center;"><b><u>GEO-DOME ROOF W/ PONTOON FLOATER</u></b></p>
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- iii. In addition to the required signage, the tank number must be painted directly on the fire department connection piping adjacent to the connection point in minimum 2” letters in a contrasting color easily visible when standing at the fire department connection.

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### Truck Loading Rack Fire Protection:

Truck loading rack fire suppression is required where Class I, Class II, or Class III liquids are handled. The fire suppression system extinguishing solution and/or method must be approved by the Broward Sheriff's Office Department of Fire Rescue and Emergency Services, Fire Marshal's Office.

### Fire Protection for Exposure Control and Cooling:

- a. Bulk petroleum terminal facilities handling liquefied petroleum gas, liquefied natural gas, or compressed natural gas in bulk must provide a water deluge or monitor fire protection system capable of reaching every storage tank with a volume of water sufficient to affect the required cooling of the tanks exposed to fire. The system must be capable of operating at its design capacity using a municipal water supply or supplemental water source without the intervention of the responding fire department.
- b. Bulk liquid petroleum terminals handling flammable or combustible liquid products at atmospheric pressure in bulk must provide a water deluge or monitor fire protection system capable of reaching every storage tank with a volume of water sufficient to affect the required cooling of tanks or related gas handling apparatus on fire or exposed to fire. This required system may be a dry pipe system that is supplied by responding fire department apparatus. The design of this system must be approved by Broward Sheriff's Office Department of Fire Rescue and Emergency Services, Fire Marshal's Office.

### Bulk Liquid or Gaseous Petroleum Terminal Requirement:

Bulk petroleum terminal facilities handling liquefied petroleum gas, liquefied natural gas, or compressed natural gas must have facility-wide leak detection. The leak detection system must automatically notify the fire department and must immediately stop all product transfers. The design of this system shall be approved by Broward Sheriff's Office Department of Fire and Rescue and Emergency Services, Fire Marshal's Office.

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(Cont.)**

General Petroleum Terminal Containment Design Requirement:

Structures providing containment of bulk petroleum products must be concrete. Earthen dikes are not allowed for new facilities or for existing dikes requiring substantial improvements.

Crude Oil Storage Containment Design Requirement:

Structures providing containment for crude oil storage tanks must be provided with a flareback section at the top of the structure to turn back a boil-over wave.

Fire Suppression Systems Emergency Notification:

All fire alarms, fire suppression and extinguishing systems, and leak detection systems must be monitored by an approved fire alarm monitoring company and provide immediate notification of fire alarm/detection/fire suppression system activation to emergency forces. Such monitoring arrangements must be in compliance with the Florida Fire Prevention Code, including NFPA 72, and meet the approval of the Broward Sheriff's Office Department of Fire Rescue and Emergency Services, Fire Marshal's Office.

Retroactivity:

The Port Everglades Department will permit the continued use of petroleum and liquefied petroleum gas terminal facilities or equipment erected or installed in accordance with the regulations and codes in force at the time of construction or installation. Any substantive changes, alterations, additions or modifications to facilities made after October 1, 2023, must be in accordance with the requirements of this Tariff Item.

Modification:

The Port Everglades Department in consultation with the Broward Sheriff's Office, Department of Fire Rescue and Emergency Services, Fire Marshal's Office, and applicable municipality, has the power to grant an exemption to this Item. Such exemption may only be granted upon written request and if such request demonstrates that: (1) enforcement of the requirements of this Item will cause unnecessary hardship to the petitioner; (2) such exemption is not

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contrary to local, state, or federal laws or regulations; and (3) such exemption will not create a material hazard to life, property, or the environment.

Equivalency:

Nothing in this Tariff Item is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by the requirements of this Item. Any equivalency must be approved by the Broward Sheriff's Office Department of Fire Rescue and Emergency Services, Fire Marshal's Office.

[III] Permits for Construction and Repairs

Consistent with Section 3.7 (iii) of the Interlocal Agreement between the City of Hollywood, the City of Fort Lauderdale, the City of Dania Beach, and Broward County, dated May 6, 1994, issuance of building permits for new construction, repairs, or alterations to petroleum terminal facilities occurring within Port Everglades or within overlapping municipal boundaries are subject to the requirements of the applicable municipality.

[IV] Annual Inspections of Petroleum Terminal Facilities

The Broward Sheriff's Office, Department of Fire Rescue and Emergency Services, Fire Marshal's Office, representing the Port Everglades Department, will conduct annual inspections of petroleum terminal facilities including buildings and structures therein and any other facility that has the potential for creating a severe petroleum-based fire within Port Everglades.

[V] Return to Service

Any petroleum load rack, storage tank, piping system, or other similar equipment that has been out of service for a period of more than five years must be approved by the Broward Sheriff's Office Department of Fire Rescue and Emergency Services, Fire Marshal's Office prior to returning to service.

Note: This Item replaces Sections 1,2,3,4, and 16 of "The Security Regulations at Port Everglades, Florida."