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# ENVIRONMENTAL Fact Sheet

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29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • [www.des.nh.gov](http://www.des.nh.gov)

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REM-33

2021

## Applicable References for the Design of Piping Systems for Underground Storage Tank (UST) Systems for Oil Burning Equipment (with or without Day Tanks)

The New Hampshire Department of Environmental Services (NHDES), in collaboration with the New Hampshire State Fire Marshal's Office (SFMO), provides the following as a summary of applicable rules and codes for the selection of materials to aid in the design and review of piping systems for the following Underground Storage Tank (UST) systems:

1. UST supplying Oil Burning Equipment with a Day Tank.
2. UST supplying Oil Burning Equipment without a Day Tank.

### Notes and References:

- **Chapter Env-Or 400** (effective 10/10/2018) = Underground Storage Tank Facilities (NH Code of Admin. Rules).
- **NFPA 30** (2015) = Flammable and Combustible Liquids Code (National Fire Protection Association).
- **NFPA 31** (2011) = Standard for the Installation of Oil-Burning Equipment.

**\*See Env-Or 403.01(c):** In the event that any of the applicable reference standards conflict with this chapter or with each other, the requirement that is more protective of the environment shall apply.

**DISCLAIMER: This summary provides general information only and is not all inclusive.** For complete regulatory information directly consult the applicable administrative rule or NFPA standard. Information contained in this document is current as of April 22, 2021. Statutory or regulatory changes that may occur after that date may cause part or all of the information to become invalid. If there are any questions concerning the current status of this information, please call us at [\(603\) 271-3899](tel:6032713899) or email us at [ORCBWMD@des.nh.gov](mailto:ORCBWMD@des.nh.gov).

## 1. Installation: UST --> Day Tank --> Oil Burning Equipment

Location	Item	Applicable Rules & Codes	Additional Information
UST to Day Tank (Day Tank Filling)	Underground Piping	*Env-Or 405.02 Env-Or 405.04 NFPA 31 8.2.2 [8.2.2.2]	A
	Aboveground Piping (outside)	Env-Or 405.02(e) NFPA 31 8.2.2 [8.2.2.1]	B
	Aboveground Piping (inside)	NFPA 31 8.2.2 [8.2.2.1]	B
	Pipe Joints	NFPA 31 8.3	C
	Valves & Fittings	NFPA 31 8.3	D
	Pumps	NFPA 31 8.10.5	E
	Flex lines	Env-Or 405.02(f) NFPA 31 8.2.2.1 (3)	F
Day Tank	Vent Pipe	NFPA 31 8.2.1 [8.2.1.1]	G
Day Tank to Oil Burner (Burner Supply)	Aboveground Piping	NFPA 31 8.2.2 [8.2.2.1]	B
	Pipe Joints	NFPA 31 8.3	C
	Valves/fittings	NFPA 31 8.3	D
	Flex lines	Env-Or 405.02(f) NFPA 31 8.2.2.1 (3)	F

## 2. Installation: UST --> Oil Burning Equipment (no day tank)

Location	Item	Applicable Rules & Codes	Additional Information
UST to Oil Burner (all piping is "supply")	Underground Piping	*Env-Or 405.02 Env-Or 405.04 NFPA 31 8.2.2 [8.2.2.2]	A
	Aboveground Piping (outside)	Env-Or 405.02(e) NFPA 31 8.2.2 [8.2.2.1]	B
	Aboveground Piping (inside)	NFPA 31 8.2.2 [8.2.2.1]	B
	Pipe Joints	NFPA 31 8.3	C
	Valves & Fittings	NFPA 31 8.3	D
	Pumps	NFPA 31 8.10.5	E
	Flex lines	Env-Or 405.02(f) NFPA 31 8.2.2.1 (3)	F

**Additional Information:**

A	Per Env-Or 403.01(c) the UST piping standards in Env-Or 405.02 and Secondary Containment in Env-Or 405.04 control use of underground piping materials.
B	Piping meeting NFPA 31 8.2.2.1 (1) - (6) is acceptable for use.
	Piping must be protected from corrosion by paint or an approved coating.
C	Pipe joints to be threaded. Thread sealant to be compatible with stored product.
	Tube joints to be metal-to-metal flare and installed per manufacturer.
	Use of other connection types is subject to review under NFPA 31 8.3.3.
D	Metal (as listed in NFPA 31 8.3.1, including brass/bronze) valves/fittings are acceptable for use.
	Use of other than metal valves/fittings are subject to review under NFPA 31 8.3.3.
E	Pump to carry a listing for use with fuel being pumped.
F	Flex lines may be used between pumps and piping system as well as between burner and piping system.
	Connection of flex lines to piping system to be per NFPA 31 8.3.
	Flex lines are not to be used at piping changes in direction.
G	Vent piping meeting NFPA 31 8.2.1.1(3) is subject to review by NHDES and SFMO.