
ENVIRONMENTAL Fact Sheet



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Applicable References for the Design of Piping Systems for Aboveground Storage Tank (AST) 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 Aboveground Storage Tank (AST) systems:

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

Notes and References:

- **Chapter Env-Or 300** (effective 2/7/2014) = Aboveground Storage Tank Facilities (NH Code of Admin. Rules).
- **NFPA 30** (2015) = Flammable and Combustible Liquids Code (National Fire Protection Association). (Env-Or 300 currently references the 2012 edition but is being revised to reflect RSA 153:1, VI-a, which currently references the 2015 edition.)
- **NFPA 31** (2011) = Standard for the Installation of Oil-Burning Equipment.

***See Env-Or 303.01(c):** In the event that any of the applicable reference standards conflict with these rules or with each other, the most stringent requirement 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.

1. Installation: AST --> Day Tank --> Oil Burning Equipment

Location	Item	Applicable Rules & Codes	Additional Information
AST to Day Tank (Day Tank Filling)	Underground Piping	*Env-Or 305.05 NFPA 31 8.2.2 [8.2.2.2]	A
	Aboveground Piping (outside)	*Env-Or 305.04(e) & (j) Env-Or 305.06(c) NFPA 31 8.2.2 [8.2.2.1]	B
	Aboveground Piping (inside)	*Env-Or 305.04(e) & (j) 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	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	*Env-Or 305.04(e) & (j) NFPA 31 8.2.1 [8.2.1.1]	B
	Pipe Joints	NFPA 31 8.3	C
	Valves & Fittings	NFPA 31 8.3	D
	Flex lines	NFPA 31 8.2.2.1 (3)	F

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

Location	Item	Applicable Rules & Codes	Additional Information
AST to Oil Burner (all piping is "supply")	Underground Piping	*Env-Or 305.05 NFPA 31 8.2.2 [8.2.2.2]	A
	Aboveground Piping (outside)	*Env-Or 305.04(e) & (j) Env-Or 305.06(c) NFPA 31 8.2.2 [8.2.2.1]	B
	Aboveground Piping (inside)	*Env-Or 305.04(e) & (j) 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	NFPA 31 8.2.2 [8.2.2.1(3)]	F

Additional Information:

A	All underground piping to have secondary containment per Env-Or 305.05(b)(1).
	Use of piping materials allowable by NFPA 31 8.2.2.2 underground must also meet the requirements of Env-Or 305.05.
B	Piping meeting NFPA 31 8.2.2.1 is acceptable for use, within the limits of Env-Or 305.04(e) & (j).
	Use of piping meeting NFPA 31 8.2.2.1 that is not permitted by Env-Or 305.04(e), would require a waiver per Env-Or 310.
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.
G	Vent piping meeting NFPA 31 8.2.1.1(3) is subject to review by NHDES and SFMO.