# ENVIRONMENTAL





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# Dispensing Pad Installation Requirements for Underground Storage Tanks

The New Hampshire Department of Environmental Services (NHDES) provides the below guidelines for the installation of dispensing pads at Underground Storage Tank (UST) facilities:

### **Plan Requirements:**

- 1. Submission of application and plans to NHDES is not required for the installation or replacement of a dispenser pad.
- 2. If modification to piping, dispenser sumps or other underground components is required to properly install the new concrete dispenser pad than NH Professional Engineer (PE), stamped plans shall be submitted to NHDES per Env-Or 407.01(a).

## **Construction Requirements:**

#### 1. Materials:

a. Dispensing pad to be constructed of reinforced Portland cement concrete that meets the requirements of NHDOT Standard Specifications for Road and Bridge Construction dated 2016 (Env-Or 405.07(b)(1)).

### 2. Grade/Layout/Slope:

- a. Elevations of dispensing pad relative to site to be such that storm water runoff will not be directed to flow over the dispensing pad (Env-Or 407.06(i)). This would include any discharge from canopy drains, gutters or roof overhangs.
- b. Dispensing pad to have the same elevation on all corners, where site conditions permit. Dispensing pad shall have uniform slope of not less than 1/8 inch per foot beginning with the dispenser as the highest location and sloping down to the edges of the pad (Env-Or 405.07(b)(5)).
- c. Dispensing pad shall not contain any manways, spill containment, other tank pad appurtenances, drains or other avenues that could allow spilled regulated substances to seep into the ground (Env-Or 405.07(b)(4)).

#### 3. Positive Limiting Barrier (PLB):

- a. PLBs to be constructed and maintained to contain a volume of at least 5 gallons regardless of which dispenser releases the regulated substance (Env-Or 405.07(b)(6)). Site conditions that warrant the installation of dispensing pad on a slope may require additional PLBs on the low side(s) of the dispensing pad to contain the required volume.
- b. Dispensing nozzles shall not extend beyond the innermost PLB as measured with the nozzle 3 feet above the pad in all directions unless other means are provided to prevent dispensing in areas beyond the PLBs (Env-Or 405.07(b)(7)).
- 4. Control Joints (Env-Or 405.07(b)(3)):
  - a. Shall be spaced a maximum of 24x the pad thickness (in feet).
  - b. Shall not be located directly in front of any dispenser.
  - c. Shall be cut/formed into the pad surface to a depth of 25% of the pad thickness.
- 5. Sealing (Env-Or 405.07(b)(2)):
  - a. Dispensing pad to have liquid-tight joints at all expansion, contraction, crack control and cold joints in all components of the dispensing area. This includes dispensing islands, bollards, canopy supports, canopy drainage pipes, utility sleeves, etc.
  - b. Dispensing pad shall be made liquid-tight by installation of sealant material listed by the manufacturer as compatible with regulated substance and installed per the manufacturer's instructions.
- 6. Dispenser Protection (NFPA 30A 6.3.4):
  - a. Dispensing devices shall be mounted on a concrete island or shall otherwise be protected against collision damage by bollards.

Please contact Chad Hayes, Technical Standards and Design Review Subsection Chief, at (603) 271-0686 or Chad.M.Hayes@des.nh.gov, if you have additional questions related to the installation of dispensing pads.

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