



# Containment Sump Installation and Upgrade Requirements

## BUREAU OF WEIGHTS & MEASURES

PO Box 8911

Madison, WI 53708

608-224-4942

[datcpweightsandmeasures](mailto:datcpweightsandmeasures@wisconsin.gov)

[@wisconsin.gov](mailto:@wisconsin.gov)

[www.datcp.wi.gov](http://www.datcp.wi.gov)

## RESOURCES

### Wis. Admin. Code ATCP 93

[http://docs.legis.wisconsin.gov/code/admin\\_code/atcp/090/93](http://docs.legis.wisconsin.gov/code/admin_code/atcp/090/93)

### Storage Tanks Website

[https://datcp.wi.gov/Pages/Programs\\_Services/PetroleumHazStorageTanks.aspx](https://datcp.wi.gov/Pages/Programs_Services/PetroleumHazStorageTanks.aspx)

### Material Approvals

[https://datcp.wi.gov/Pages/Programs\\_Services/MaterialApprovals.aspx](https://datcp.wi.gov/Pages/Programs_Services/MaterialApprovals.aspx)

Wisconsin Administrative Code chapter ATCP 93 requires the addition of submersible and dispenser aboveground-to-underground transition containment sumps for new, existing, and upgraded piping systems. ATCP 93 also requires the addition of aboveground-to-underground (and vice-versa) transition containment sumps for new or replacement systems only. The requirements for the installation of the required containment sumps and associated monitoring equipment are:

ATCP 93.500 (5) *Secondary Containment For Piping* and ATCP 93.615(5)(f) *Secondary Containment* require approved secondary containment with non-discriminating\* electronic interstitial monitoring if underground product piping is installed as part of a new tank system or when 50 percent or more of a pipe run\*\* is replaced. Exceptions to these requirements are:

- When underground fill piping drops vertically into a tank
- Sumps for new or replacement underground fill piping that does not drop vertically into a tank may be monitored visually on a monthly basis, instead of monitored with an electronic sensor.

\* “Non-discriminating” monitors and sensors are those that will detect any type of liquid.

\*\* A pipe run is considered the length of pipe from one connection point to another, i.e., the dispenser connection to the tank connection or the length of pipe between dispenser or transition sump connections. The replacement percent dimensions are calculated only on the subject pipe run not the aggregate of all pipe runs.

### Examples of how secondary containment requirements apply to new or upgraded installations:

#### **Installation of new containment sumps only, no piping addition or upgrade:**

- All existing pipe connections at the top of the tank and beneath all freestanding pumps and dispensers that routinely contain product need to be placed within secondary containment sumps by (12/31/2020). Sump upgrades will not require non-discriminating electronic sensors at the completion of the sump upgrade until 12/31/2020.
- Any existing dispenser that shows visible contamination must have a liquid-tight secondary containment sump installed under it by December 31 of the next calendar year. Non-discriminating electronic sensors shall be installed by 12/31/2020.
- Safe suction systems existing prior to February 1, 2009 only require sump containment and leak detection sensor at the dispenser, not the tank top.

(over)

**Installation of pressurized, suction, or safe suction piping system or replacement/upgrade of  $\geq$  50% of existing pressurized, suction, or safe suction piping system:**

- Secondary containment piping shall be of a double-wall design and include containment sumps at the tank top, dispenser, and aboveground-to-underground transitions (and vice-versa).
- The pipe run between the tank and the first dispenser must be sloped to drain a minimum 1/8 inch per foot back to the tank sump. The tank sump must also include a non-discriminating electronic sensor.
- All new dispenser sumps must include non-discriminating electronic sensors even if the pipe configuration allows for pipe drainage to the succeeding sumps.
- All new dispenser sumps must include non-discriminating electronic sensors even if the pipe configuration allows for pipe drainage to the submersible sump via a connecting flow tube.
- All new piping transition sumps must include non-discriminating electronic sensors.
- Some piping systems are unable to maintain the required piping pitch back to the underground storage tank. In these cases the installation of a solenoid valve immediately downstream of the submersible pump is necessary to prevent siphoning of the tank contents. Additional leak detection devices may be required and the leak detection manufacturer should be consulted to determine the proper location for the line-leak detector.

**Addition to or relocation of dispenser island with or without existing containment sump(s):**

Addition to or relocation of a dispenser island with or without existing containment sump(s) will require installation of secondary containment sumps and non-discriminating electronic sensor at the time of the addition or relocation of dispenser island.

**Addition to or relocation of a dispenser to an existing island with or without existing containment sump:**

Addition to or relocation of dispenser to an island with or without existing containment sumps will require installation of secondary containment sumps and addition of non-discriminating electronic sensor at the time of the addition or relocation of dispenser on an island.

*Examples of how secondary containment requirements apply to existing installations:*

**Existing tank top and dispenser sumps, no piping addition or upgrade and no existing *non-discriminating electronic sensors*:**

Existing tank top and dispenser sumps will not require non-discriminating electronic sensors until December 31, 2020.

**Replacement of an existing dispenser island without existing containment sumps (no change to location of island or individual dispenser):**

Replacement of dispenser islands will not require addition of secondary containment sump or non-discriminating electronic sensors at the time of the replacement. However, containment sumps and non-discriminating electronic sensors shall be installed by December 31, 2020.

**Replacement of an existing dispenser island with existing containment sumps (no change to location of island or individual dispenser):**

Replacement of dispenser islands will require re-installation of secondary containment sump and non-discriminating electronic sensors at the time of the island replacement.

**Replacement of an existing dispenser without a secondary containment sump with a new dispenser:**

Upgrade with dispenser sump and non-discriminating electronic sensor not required until December 31, 2020.

Equipment requirements:

**Containment sump construction requirements:**

- New installations require an approved listed\* manufactured containment sump.
- Fabricated sump containment boxes, dispenser pans and linings are acceptable means of upgrade compliance for existing systems.

\* “Listed” means equipment or material that has been labeled or identified by an organization concerned with product evaluation acceptable to the department. The listing of the equipment indicates compliance with appropriate standards or performance for a specified purpose.

**Acceptable equipment for containment sump non-discriminating electronic sensor monitoring:**

Non-discriminating electronic sensors require [material approval](#) from the department and must be either:

- a sensor monitored by an Automatic Tank Gauge (ATG); or
- a stand-alone sensor wired directly to the dispenser or submersible control in order to disable the operation of the respective dispenser or submersible.