



ON THE FRONT LINES: FAILED SUMP INSPECTION INITIATIVE

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PRESENTATION OVERVIEW

1. 10,000 gal. Gasoline Release in Athol
2. Editing the Third-Party Inspection Report (TPIR)
3. Tracking Facilities that Need Sump Repairs
4. Inspecting Identified Facilities



INSPECTION SCHEME - MASSACHUSETTS

- Approx 3,400 Facilities and 8,200 USTs
- Private Third-Party Inspection (TPI) Program
 - USTs inspected **once every three years**
 - TPIs use inspection report developed by MassDEP
 - Owners/Operators sign and submit inspection report to online data system
 - If violations are identified, they must submit a TPI Report (TPIR) Return to Compliance (RTC) Completion Report within 30 days
- MassDEP conducts some unannounced inspections (annual and targeted)



10,000 GALLON RELEASE

- Petroleum odors identified at wastewater treatment plant. Jan 2021
- Traced back to gas station in Athol with historical overfills and a faulty turbine sump. Mar 2021



10,000 GALLON RELEASE (CONTINUED)

- Turbine sump entry boots, conduit in sump, and overflow prevention (ball floats to automatic shut-off) were replaced.
- Old equipment in MA: UST was installed in 1995.
- LNAPL and impacted soil and groundwater discovered. Clean-up is ongoing.

THIRD-PARTY INSPECTION REPORT (TPIR) SUMP QUESTIONS POST-3/18/2024

A. Registration - UST System - Tank (1)	
Is the registration data accurate and complete for: (repeated for each tank)	
DEP Tank ID#	6
18. Tank installation date?	Yes
19. FR instrument?	Yes
20. GPS coordinates?	Yes
21. Tank construction material?	Yes
22. Number of tank compartments?	Yes
23. Capacity of each compartment?	Yes
24. Product stored in each compartment?	Yes
25. Product used for?	Yes
26. Tank Status?	Yes
27. Piping and fittings construction material?	Yes
28. Piping description?	Yes
29. Turbine Sumps?	Yes
30. Intermediate Sumps?	Yes
31. Dispenser Sumps?	Yes

Questions A. 29., 30., and 31. - Registration

D. Inspections, Response to Alarms and Current Conditions	
1. Periodic Visual Inspections. Are there records or logs showing compliance with the periodic Inspections Requirements at 310 CMR 80.35 for leak detection equipment, spill buckets, sumps, and overfill protection; including identifying operational or maintenance issues, and making repairs [CG2] as required? 310 CMR 80.35(1) through (7)	Yes

Question D. 1. - Periodic Inspections



TPIR SUMP QUESTIONS POST-3/18/2024

G. Sumps (1)	
Answer for each tank system:	
DEP Tank ID#	4
1. Were any product dispensers installed, repaired or replaced between 3/21/2008 and 9/30/2021?	No
2. Were any product dispensers installed, repaired or replaced on/after 10/1/2021?	Yes
2a. Is each dispenser equipped with a sump continuously monitored for liquids using a sump sensor?	Yes
3. Does the Tank have submersible pumps?	Yes
3a. Is each pump contained in a turbine sump?	Yes
4. Does the facility have tank top sumps, intermediate sumps or dispenser sumps?	Yes
5. Does the facility have sumps that were installed after 3/21/08?	No
6. Are all sumps clean and free of solid and liquid material?	Yes
7. Are all sump sensors placed in accordance with manufacturer's specification or at the lowest possible location in the sump?	Yes
8. Do all sump manhole covers impede water infiltration to the sump?	Yes
9. Are all sump covers free of cracks and holes?	Yes
10. Are there records that each sump was integrity tested on or before 10/13/22? Please note: testing is required once every three years, on or after 10/14/22. 310 CMR 80.27(7) and 80.36(1)a.	No
10a. Are the sumps that were not tested exempt from testing? (310 CMR 80.27(8))	Resolved
11. Are there records that each sump was integrity tested on or after 10/14/22? 310 CMR 80.27(7) and 80.36(1)a	Yes
11b. What is the date of the most recent sump periodic integrity test on or after 10/14/22? 310 CMR 80.27(7)	11/03/2022
12. If the sump(s) failed the test, are there records of a repair or replacement?	NA
13. If the sump(s) was repaired or replaced, are there records to show it passed an integrity test?	NA
14. Are sumps in good operating condition –for example, do they appear to be liquid tight, free from cracks, holes or other damage; free from corrosion, breakage and wear; are piping boots (that seal the piping to the containment sump) in-tact and functioning? 310 CMR 80.27(6) and 310 CMR 80.35	Yes

Questions G. 1. – 14.



TRACKING SUMP VIOLATIONS

- Some of the most common violations observed are sump related – Third-Party Inspections and MassDEP inspections
- **MassDEP:** In FFY2024:
 - 32% of Facilities had sump integrity testing violations; and
 - 27% of Facilities had violations for liquid and/or solid material in sumps.
- **TPIs:** As of August 26, 2025, of the Facilities that still have overdue and open sump violations:
 - 48% have not had any sump testing;
 - 44% failed sump testing and did not make subsequent repairs; and
 - 67% were a “visual fail.”



DELAYS

Approx. 53% of all Facilities had a TPIR due in FFY2025. This, along with the new TPIR form, have led to a high demand for sump repairs.

62% of Facilities with overdue sump violations are over two months past their due date.



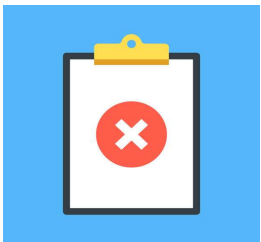
ENFORCEMENT OVERVIEW



After Facilities pass their TPIR RTC Completion Report due date, we issue them a Notice of Non-Compliance (NON).



If they still don't submit their report, we put them on an inspection list.



If inspection shows non-compliance, often results in high level enforcement (with penalties).



CASE #1

- USTs installed in 2012.
- 9/24/2024 – TPI inspection. Report submitted 10/29/2024.
- TPI identified 8 separate sump violations.
- 12/4/2024 – TPI contacted MassDEP regarding concerns over the condition of the facility; contractors had left tank-top sumps open and exposed since May 2024, exposing piping within the sumps to car traffic.
- 12/9/2024 – MassDEP inspected the facility.
- MassDEP identified 15 separate sump violations, including liquid and solid debris in sumps, failure to integrity test sumps, loose secondary containment boots in dispenser sumps, and failure to repair and/or replace sumps within 30 days of the discovery of need for repair.
- Ongoing MassDEP enforcement.

CASE #1 – TPIR PICTURES

G. Sumps (1)

5. Are all sumps clean and free of solid and liquid material?

Violation Determined: 9/24/2024

310 CMR 80.27(2)

RUL STP sump filled to top with water and bottom is filled with dirt and debris due to contractor never coming back to finish work.



Photo Taken: 10/16/2024 2:09:58 PM

13. Are sumps in good operating condition –for example, do they appear to be liquid tight, free from cracks, holes or other damage; free from corrosion, breakage and wear; are piping boots (that seal the piping to the containment sump) in-tact and functioning? 310 CMR 80.27(6) and 310 CMR 80.35

Violation Determined: 9/24/2024

T-13B SUL STP SUMP HAS A CRACK IN PLASTIC AT TOP OF SUMP AND ALSO LEAKED 7" IN AN HOUR BELOW CRACK AS WELL, WATER WAS LEFT IN SUMP OVER NIGHT AND ALL WATER LEAKED OUT.

ALL DISPENSER SUMPS ARE VISUAL FAILS, ALL SECONDARY BOOTS AND CLAMPS ARE LOOSE, NEED TO BE POSSIBLY REPOSITIONED AND TIGHTENED. DISPENSERS WOULD NEED TO BE REMOVED FROM ISLANDS TO PROPERLY BE ABLE TO TIGHTEN ALL LOOSE CLAMPS ON EVERY SECONDARY TEST BOOT, JUST TO BE ABLE TO CONDUCT A HYDROSTATIC TEST OF DISPENSER SUMPS.



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G. Sumps (1)

7. Do all sump manhole covers impede water infiltration to the sump?

Violation Determined: 9/24/2024

10 CMR 80.27(4)

Sump area is wide open on both RUL STP sump and SUL STP sump due to contractor never coming back to finish work.



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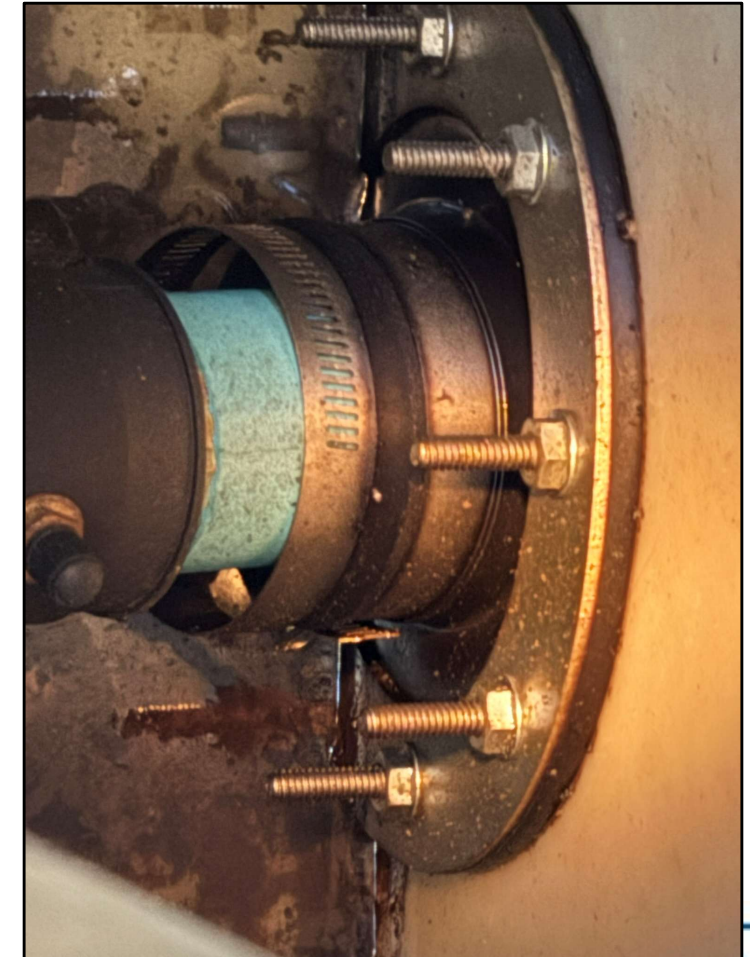
CASE #1 – MASSDEP INSPECTION PICTURES



Crack in premium gasoline turbine sump



12 inches of water in regular gasoline turbine sump



Loose secondary containment boots and clamps in dispenser sump



CASE #2

- USTs installed in 1992.
- 7/16/2024 – TPI inspected the facility. TPIR submitted on 8/5/2024.
- TPI identified 12 separate sump violations.
- 12/9/2024 – MassDEP inspected the facility.
- MassDEP identified 15 separate sump violations, including liquid and solid debris in sumps, failed sump integrity tests, turbine sump sensors not placed in accordance with manufacturer's specifications, holes in turbine sump manhole covers, and failure to repair and/or replace sumps within 30 days of the discovery of need for repair.
- Ongoing MassDEP enforcement.

CASE #2 – TPIR PICTURES

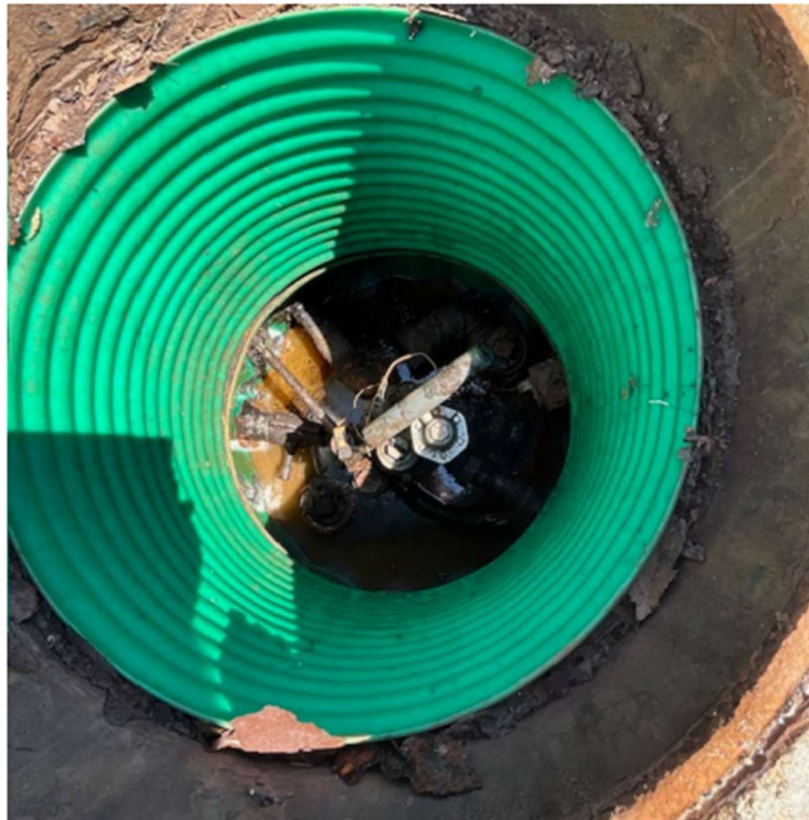
G. Sumps (4)

5. Are all sumps clean and free of solid and liquid material?

Violation Determined: 7/16/2024

310 CMR 80.27(2)

DSL STP sump also has a crack in bottom of sump.



CASE #2 – MASSDEP INSPECTION PICTURES



Approximately, 20 inches of water in regular gasoline turbine sump



Solid debris and trace amounts of fuel in dispenser sump



Holes in turbine sump manhole cover, allowing water to infiltrate sump

CASE #3

- USTs installed in 1992.
- 8/29/2024 – TPI inspected the facility. TPIR submitted on 8/29/2024.
- TPI identified 8 separate sump violations.
- 12/10/2024 – MassDEP inspected the facility.
- MassDEP identified 17 separate sump violations, including liquid and solid debris in sumps, failure to integrity test sumps, holes in turbine sump manhole covers, loose secondary containment boots in dispenser sumps, and failure to repair and/or replace sumps within 30 days of the discovery of need for repair.
- 5/08/2025 - TPI re-inspected the facility. TPIR RTC Completion Report submitted on 5/08/2025. Claims all violations addressed by taking USTs temporarily out-of-service (TOS).
- Ongoing MassDEP enforcement.

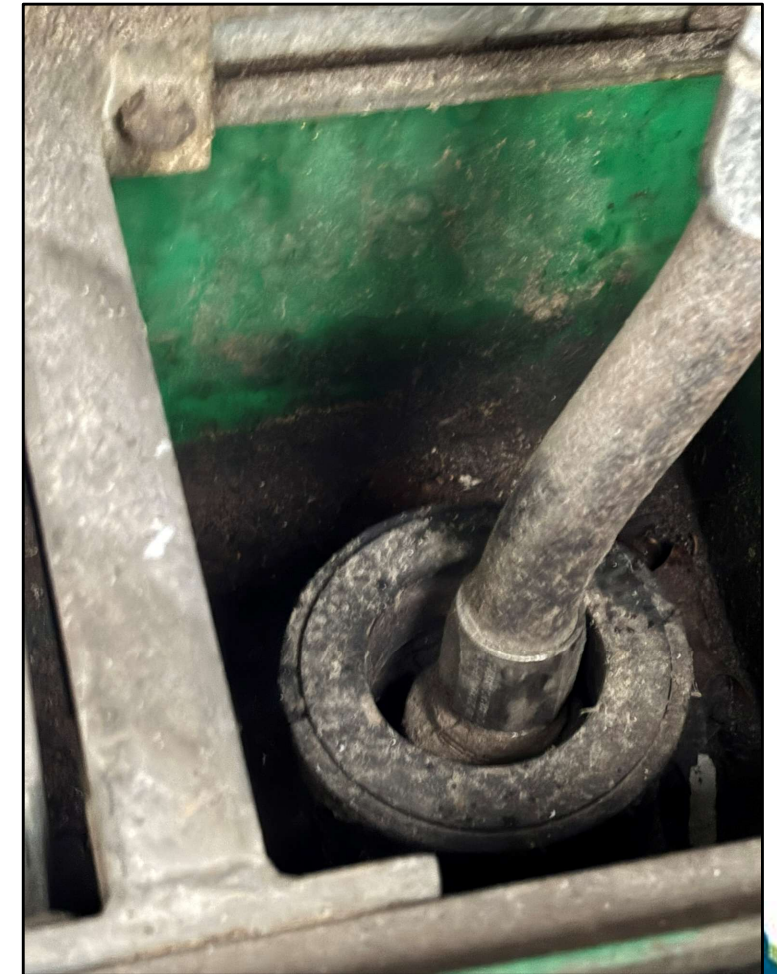
CASE #3 – MASSDEP INSPECTION PICTURES



6 inches of water in regular gasoline turbine sump



5 inches of water and solid debris in super gasoline turbine sump



Loose secondary containment boots and clamps in dispenser sump

CASE #4

- USTs installed in 1985.
- 4/8/2025 – TPI inspected the facility. TPIR submitted on 4/28/2025.
- TPI identified 9 separate sump violations, including liquid in sumps, failed sump integrity tests, holes in sump manhole covers and sump covers, sumps with cracks in the bottom, and failure to repair and/or replace sumps within 30 days of the discovery of need for repair.
- Slated to be inspected by MassDEP.

CASE #4 – TPIR PICTURES

G. Sumps (1)

12. If the sump(s) failed the test, are there records of a repair or replacement?

Violation Determined: 4/8/2025

310 CMR 80.27(9)(a) and 310 CMR 80.36(1)(I)

Sump is cracked at bottom, needs to be repaired and or replaced. Syphon line Copper tube hole wide open, it was tested together with RUL-S sump but still failed integrity testing.

Photo Taken: 4/24/2025 6:19:00 AM



G. Sumps (2)

8. Do all sump manhole covers impede water infiltration to the sump?

10 CMR 80.27(4)

Sump manhole covers have holes from old handles that need to be repaired by welding closed or replaced with new covers.

Photo Taken: 4/24/2025 6:19:00 AM



Photo Taken: 4/24/2025 6:19:00 AM

G. Sumps (1)

9. Are all sump covers free of cracks and holes?

Violation Determined: 4/8/2025

310 CMR 80.27(4)

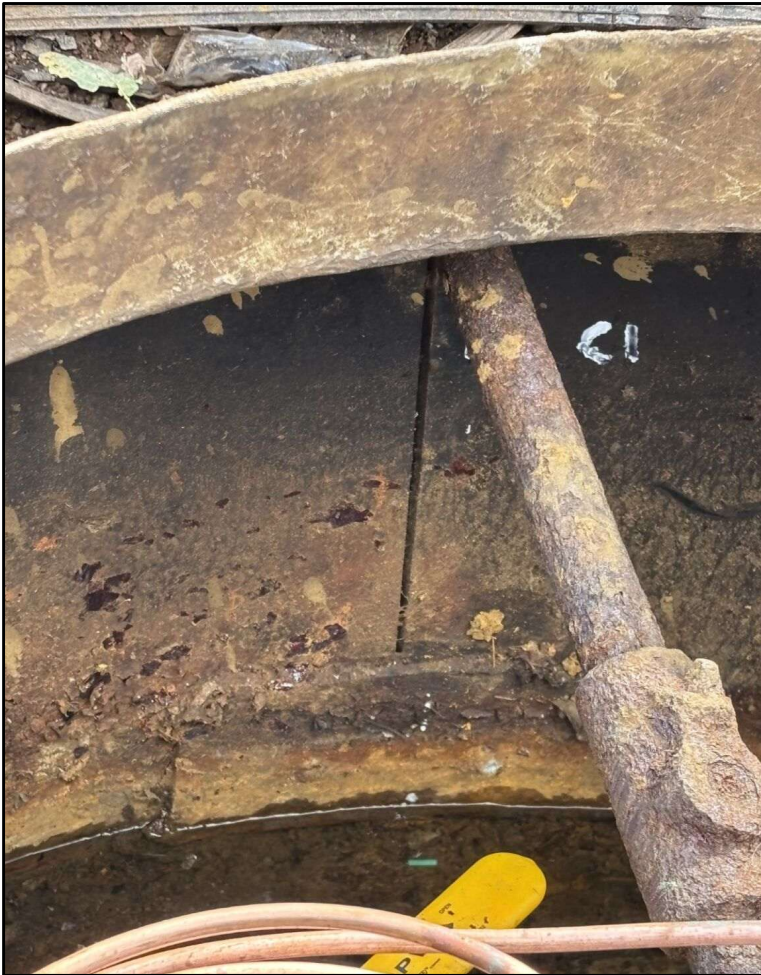
Sump cover needs to be replaced.



CASE #5

- USTs installed in 1985.
- 8/25/2025 – Release reported to MassDEP, 14 inches of gasoline in fiberglass trench. Source discovered to be 2 holes in single-walled fiberglass piping.
- TPI inspected facility on 5/12/2025, yet to submit TPIR.
- MassDEP inspected facility on 9/9/2025.
- MassDEP identified several sump violations, including liquid and solid debris in turbine sumps, failure to integrity test sumps, turbine sump sensors not placed in accordance with manufacturer's specifications, holes in turbine sump covers, holes and cracks in turbine sumps, and failure to repair and/or replace sumps within 30 days of the discovery of need for repair.
- Ongoing MassDEP enforcement.

CASE #5 – MASSDEP INSPECTION PICTURES



Crack in regular gasoline turbine sump



Hole in regular gasoline turbine sump where piping enters



Hole in turbine sump covers



CONCLUDING REMARKS



THANK YOU FOR YOUR TIME

ANY QUESTIONS?

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