National Work Group on Leak Detection Evaluations (NWGLDE) Meeting
Charleston, SC: November 1-3, 2023

Wednesday, November 1, 2023

A complete list of meeting attendees for the sessions is included at the end of these minutes.

TEAM UPDATES

ATG, VTT & NVTT TEAM – Wesley McCain

I. Completed Review

ATG:
- No activity

VTTT:
- No activity

NVTT:
- Think Tank Tightness Tester

II. Under Review

ATG:
- Incon EVO 200/400 Listing- Waiting on a response to additional information request.

VTTT:
- No activity

NVTT:
- No activity

CITLDS TEAM – Shaheer Muhanna

I. Completed Review
- Added CSLD to Dover Fueling Systems ProGauge MagLink LX ATG.

II. Under Review
- No activity

LLD TEAM – Greg Bareta

I. Completed Review

- Reviewed Vaporless Automatic Repressurization Module (ARM-4073) for possible effect on the ability of a mechanical line leak detector. No concerns at this time.

II. Under Review

- No activity

SIR TEAM – Shaheer Muhanna

I. Completed Review

- No activity

II. Under Review

- No activity

INTERSTITIAL MONITORING and OUT-of-TANK DETECTOR METHODS TEAM – Tim Smith

Interstitial Monitoring Completed Review

- PMP Piping Sump Sensor 63228 and 63229 as evaluated with the Veeder-Root TLS-350 (firmware version 336)
- PMP Tank Interstitial Sensors 63409, 63420, and 63460 as evaluated with the Veeder-Root TLS-350 (firmware version 336)

Interstitial Monitoring Under Review

- Franklin Fueling: working on door alarm switch sensor evaluation- change in SW and modification of sensor

ABOVEGROUND AND BULK STORAGE TANK METHODS TEAM – Oma Gilbreth

I. Completed Review

- No activity

II. Under Review

- Mass Technology: evaluation of additional data provided by Mass Technology for increasing square footage limitation meets protocol but actual data was not provided.

SECONDARY AND SPILL CONTAINMENT TESTING METHODS TEAM – Mike Hollis

I. Completed Review

- No activity

II. Under Review
- No activity

III. Other Activity
- No activity

LIST ADMINISTRATION TEAM – Don Taylor

- Verbally notified of name change from Praxair to Linde Services. Will update listings to reflect change once formal request received.
- Due to the difficulty in getting a pool of qualified candidates, the workgroup discussed the following changes in red to existing NWGLDE Policy Memo #2, Sub-section A.I.:

A. Work Group Structure

I. Work Group membership is normally 11 members. Work group members are chosen from candidates who are UST/AST program staff and employed by federal EPA, state or territory government agencies, or other local government entities such as tribe, county, or city governments. Work Group membership is structured so that there is a minimum of 7 non-federal government entity members and a maximum of 3 federal EPA members. However, the following restrictions apply:

a. There shall be no more than 5 members from within the boundaries of any single EPA region.

b. There shall be not more than 2 members from within the boundaries of any single state or territory.

c. There shall be not more than ~~1~~ 2 members from any single state or territory government agency.

d. There shall be not more than 1 member from any single local government entity.

e. There shall be no more than 1 member from any single EPA regional office.

f. There shall be not more than 1 member from EPA headquarters.

g. There shall be no EPA members from an EPA region with 5 non-EPA government entity members.

II. If a situation arose where the above restrictions could not be met and resulted in a membership of less than 10 members, then items a-g above may be modified on a temporary basis only by a majority vote of the existing members in order to maintain a fully staffed Work Group.

- The workgroup discussed and agreed to add the following addition to existing NWGLDE Policy Memo #2, Sub-section B.XI.:

X.I. New work group members will initially be designated a provisional member and will serve a probationary period. The probationary period will be in effect until either one year has passed or the probationary member has attended two Work Group meetings, whichever is longer. At the end of the probationary period the full Work Group members will vote to either transition the provisional member to a full member or terminate their membership.

REVIEW OF TEAM ASSIGNMENTS

No changes.

NEW BUSINESS

- The Work Group will collaborate with industry vendors and associations to develop guidance and procedures for the issues raised in the vendor presentations; detecting water ingress in high ethanol or biodiesel liquids, performing sump testing at high groundwater facilities, and interpretation of leak detection testing results.
- New listings that use software to evaluate the testing data shall include the software version in the listing. ATGs listings need to include both the software version and the applicable console identification number.
- The workgroup discussed the need to review the Glossary for accuracy and definition additions/removals.

OLD BUSINESS

- Team leads need to continue to review and revise checklists in SOP manual to ensure they match with the new evaluation protocols.
- Concerns over detecting water ingress in high ethanol or biodiesel liquids with certain leak detection methods remain. The work Group will continue to investigate the issue and look to develop guidance to the industry in the near future.
- After a listing has been approved and is going to be posted on the web site, the evaluator shall send the listing evaluation documents including the 3rd-party report and all correspondence to both the WG Chairman and Vice-Chairman.

VENDOR PRESENTATIONS- (all are included as part of the meeting minutes.)

- ACCENT ENVIRONMENTAL- Danny Brevard
  Containment Sump Testing Groundwater Procedure:
  Mr. Brevard discussed the importance for any sump testing method to consider the level of groundwater surrounding the sump. This can change from season to season. Determination of Groundwater can consist of:
    - Observation wells- need at least 3; make sure in tank pit backfill to avoid bathtub effect.
    - Install ¾ inch piezometer- need direct access to backfill adjacent to sump.
    - Visual- down to bottom of sump/tank top.

  Initial observation may result in:
    - No groundwater or below sump- proceed with vacuum/pressure/hydro testing
    - Groundwater at some level- consider the groundwater to act a s a reverse hydro and then use vacuum/pressure to test rest of sump.

  If soil frozen or ice in sump cannot be tested.

- TENNESSEE DEPARTMENT OF ENVIRONMENT and CONSERVATION – Dustin Turner
  Regulatory Perspective on tightness testing
  Mr. Turner presented the results of reviews he has performed on the contractor tightness testing records of storage tanks and piping in the State of Tennessee. His findings include not calling an inconclusive a fail, and passing failing tanks. Doesn't see any difference between a fail, inconclusive or diagnostic test. Some of the issues identified include; no data on MLLD test but was designated as inconclusive not a fail; no data on a line test but designated an inconclusive, not a fail; multiple lines tested at same time but have different start/end times. Regulators should review these carefully and regularly.

- MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY – Wesley McCain, P.E.
  Mr. McCain presented a comprehensive analysis of the issues with NVTT testing and water detection in ethanol and biodiesel liquids. The current methods (conductivity sensors) may not be accurate enough to detect a leak in a tank if high groundwater (or free product) is present in the tank backfill. The current EPA NVTT protocol does not address this issue well and likely needs revision. Questions with current vacuum methods include, test residence time, amount of vacuum applied to draw in 0.1 gph of water/air/fuel, verification of groundwater or surrounding fuel level in tank backfill, back

pressure from tank backfill on tank (potentially collapse the tank?), tank tilt, sludge or debris in tank bottom. Possible solutions are empty tank testing, use of tracer/dies in backfill groundwater, Vacuum testing with ATG probes, Specific gravity change from before testing to after, mass-based methods only. Work Group needs to assist and work with industry groups in developing these solutions.

Discussion of Presentations

- **ACCENT ENVIRONMENTAL- Danny Brevard**
  The Work Group agrees with Mr. Brevard that groundwater needs to be considered in containment testing. The Work Group supports the inclusion of groundwater procedures for determining and addressing groundwater above the bottom of containments in the listings and national standards.

- **TENNESSEE DEPARTMENT OF ENVIRONMENT and CONSERVATION – Dustin Turner**
  The Work Group agrees an inconclusive is equivalent to a test fail and should be noted in test documentation as a fail. The Work Group believes there is a lot of confusion with pass/fail criteria so the work Group would like to see the US EPA develop a leak detection method specific guidance document to include minimum data reporting requirements and interpretation of results.

- **MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY – Wesley McCain, P.E.**
  The Work Group agrees the concerns brought up in the presentation are valid. The Work Group plans to work with the affected industry groups on investigating and resolving the issue raised in the presentation.

NWGLDE MEMBERSHIP ELECTION

- Since the recent recruitment for new members did not produce enough qualified candidates, the work Group has decided to extend the recruitment until December 31, 2023. Current members will vote on the candidates in January.

Friday, November 3, 2023

MISCELLANEOUS

- Future meeting:
  1. We will submit three locations to NEIWPCC for a Spring, 2024 meeting:

a. New Orleans, LA or
b. Albuquerque, NM; or
c. Salt Lake City, UT.

Adjourn