

**National Work Group on Leak Detection Evaluations (NWGLDE) Meeting  
Wisconsin Dells, October 8-10, 2008**

WEDNESDAY, October 8, 2008

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

**ANNOUNCEMENTS**

- Jon Reeder has announced that he will need to cut back on his involvement in the work group, especially the web master work, and maybe in one year will have to resign totally.
- New work group members:  
    Marcia Poxson from Michigan Department of Environmental Quality, and Mike Juranty from New Hampshire Department of Environmental Services.

**WELCOME VISITORS**

- No visitors attended

**TEAM UPDATES**

**ATG TEAM – Lamar Bradley**

- Since Jon Reeder is backing off workload, Lamar Bradley is now team leader.
- Varec 854 ATG and Varec Bulk. No water sensor evaluation was conducted. Contacted manufacturer and they will 'get back' to us. Pending in-process.
- OPW – 'i-site' ATG in-process and trying to bring all Petrovends under OPW name.

**AST TEAM– Jon Reeder**

- Will review team leader issues later in meeting.
- No activity to report.

**CITLDS TEAM – Shaheer Muhanna**

- Shaheer Muhanna was not able to attend. Helen Robbins gave the team update.

- Veeder Root TLS-450 comparison was reviewed and it is now included on the listing. Send to “Review Completed” list.

#### **NVTTT TEAM – Helen Robbins**

- Leak Detection Technology Listing was revised to include language that the chemical marker can be vapor, liquid, or both. This was to clarify that the test can be used on empty tanks. The work group discussed comments of analyzing samples within holding times. It was decided to let the sample analysis language stand as the listing also references EPA sampling document SW-846.

#### **LLD TEAM – Greg Bareta**

- Masstech Line ML3P is completed and listed. Send to “Review Completed” list.
- Veeder-Root PLLD. The TLS 350 to 450 comparison has been completed and listed. Send to “Review Completed” list.
- Tanknology TLD-1 for Line Testing Pipelines has been completed and listing changes made. Send to “Review Completed” list.
- Estabrook EZY-Chek updates for volumes on rigid and flexible has been completed. Send to “Review Completed” list.
- Franklin Fueling Systems. Enhancement to existing ELLD has been completed and listed. Send to “Review Completed” list.

#### **SIR TEAM – Lamar Bradley**

- Clearstone Engineering Greenscan SIR 3.0.1.2 has been completed and listed. Send to “Review Completed” list.

#### **INTERSTITIAL MONITORING METHODS TEAM – Tim Smith**

- Added two PermaAlert listings. (1) PAL-AT Models AT20C, AT50C, AT20K, AT40K, AT80K with PHLR-S/L and PHLR-P-S/L Hydrocarbon Probes; and the Liquid Watch Leak Detection System LW64-IS and PHLR-LW and PHLR-P-LW Hydrocarbon Probes. Send to “Review Completed” list.
- Tyco Thermo Controls LLC LS-3 still under review. Stated that the evaluation only tested with salt water, motor oil, and soil salt water mix. Manufacturer was informed that the listing would be limited to inclusion of these products. Awaiting additional information.
- Listing with sensors evaluated for use with Veeder Root’s 450 console had the console added. Send to “Review Completed” list.

- Incon TS5000 console added to all sensor listings where sensors were evaluated to work with the console. Console identified as TS5xxx. Send to “Review Completed” list.
- The IMOTD Team kept an internal placeholder in anticipation of receiving an evaluation from Madison switches. The team has not received any material from the company in over two years and is deleting the placeholder. Purge from “Under Review” list. Add to “Not Listed” list.
- The IMOTD Team kept an internal placeholder in anticipation of receiving an evaluation from World Telemetry, Inc. based upon information from Scott Bacon that the company had inquired how to be added to California’s LG 113 list. The company had indicated that KWA had certified its leak detection systems for interstitial and sump monitoring. The team has not received any material from the company in over two years and is deleting the placeholder. Purge from “Under Review” list. Add to “Not Listed” list.
- The “Evaluation of the Krueger At-A-Glance Leak Gauge” submitted by Krueger Sentry Gauge Co, with final KWA report date of April 11, 2007 – vendor did not wish to pursue at this time. Purge from “Under Review” list. Add to “Not Listed” list.
- Received new request to list the Incon TSP-DMS -12 and -24 liquid contact sensors with the TS-5xxx console. Date on Final Report for evaluation performed by KWA is July 16, 2008. Add to “Under Review” list.

#### **SECONDARY CONTAINMENT TESTING METHODS TEAM – William Moore**

- Will review team leader issues later in meeting.
- No protocols submitted or developed yet. So, no activity to report.

#### **LIST ADMINISTRATION TEAM – Curt Johnson**

- Prepare hard copy list for FY 2009.
- Deadline for changes in by 12/5/2008.
- Edited version deadline by 12/12/2008.
- Comments back by 12/19/2008.
- Hard copy list out by 1/2/2009.

#### **WEB SITE ADMINISTRATION– Jon Reeder**

- Both Marcia and Helen will be trained on Web Site, with Marcia as Team Lead by end of meeting. Jon will continue to aid in transition and will resign one year from now.

### **PROTOCOLS UNDER REVIEW**

- Discussed policy for meeting separately with vendors on draft protocols. Continue with current practice of teleconference for confidential information at team level. If there are issues the team cannot resolve, then they can be brought before the entire work group.

### **DISCUSS 'UNDER REVIEW', 'NOT LISTED' AND 'REVIEW COMPLETED' LISTS**

- Discussed bringing lists up to date, and purging those under review into the "Not Listed" list for those who fail to submit requested additional information to the team members in a timely manner.

### **DISCUSS NUMBER OF WORK GROUP MEMBERS**

- Discussed the number of work group members and policy memo #2 on how many members are allowed. Discussed that current language does not limit the number, except in a through g, but we could add changes to language to policy memo #2 to allow more than 10 members as specialties or transition periods are needed. Curt took down language to add.

### **REVIEW OF TEAM ASSIGNMENTS**

- The following team assignments and categories are immediately effective. Reforming Bulk UST team under AST. Secondary Containment team to include spill containment. Jon will continue to aid in transition of Web Administration and will resign one year from now.

ATG, VTTT – Lamar Bradley (Leader), Jon Reeder, Mike Juranty

CITLDS – Shaheer Muhanna (Leader), Helen Robbins

NVTTT – Helen Robbins (Leader), Mike Juranty

LINE LEAK DETECTION – Greg Bareta (Leader), Bill Moore

SIR – Lamar Bradley (Leader), Jon Reeder

IM & Out of Tank – Tim Smith (Leader), Shaheer Muhanna, Lamar Bradley, Peter Rollo, Bill Moore

AST /BULK– Peter Rollo (Leader), Greg Bareta, Marcia Poxson

SECONDARY & SPILL CONTAINMENT – Bill Moore (Leader), Shaheer Muhanna, Tim Smith

ADMINISTRATION – Curt Johnson (Leader), Jon Reeder, Helen Robbins, Marcia Poxson

## **NEW BUSINESS**

- Discussed Future Web Site Maintenance. Jon Reeder will be turning over webmaster responsibilities to Marcia Poxson, with Helen Robbins trained as a backup. Jon will continue to train Marcia and Helen over the next year as necessary. The approved changes in policy memo #2 for the number of members as discussed above should allow Jon to continue to be a member during the transition period.
- Discussed and re-formed the Bulk UST Team as part of the AST Team as noted above in team assignments.
- Discussed EBW AutoStik. Jon Reeder will try to determine if Patriot (7030 Mag) system that we have listed, are the same so we can list it as such. Inspectors are having trouble finding specific listings when there are simple name changes to equipment when the equipment is sold. He has a copy of the EBW AutoStik 3<sup>rd</sup> party that exactly matches the Patriot 7030 Mag. 3<sup>rd</sup> party that was listed, but the EBW was never officially submitted.
- Discussed leak detection issues and concerns related to E10 - E85. Users need to know that unless ethanol is specifically indicated on a NWGLDE listing, it is not implied that any equipment was evaluated for E10 – E85. Discussed adding an alternative fuels listing that does evaluate their systems for those alternative fuels. Color cut paste is available to the owners to determine if they have alcohol and if it is saturated with water. We may need to address testing amendments to add E10 that most states already allow. Group decided to add disclaimer language that unless specifically indicated equipment evaluated and listed by NWGLDE does not mean it is applicable for alcohol blends. Add disclaimer: ‘Unless specifically indicated on the individual data sheet the equipment listed by NWGLDE has not been evaluated using alternative fuels.’
- Discussed the \$10 per year per member to support the web site fees. Collected \$100 from current members.
- Discussed the Method Evaluation Review – Document List, check list item #11. Item #11 was found to still be applicable, but item #13 (a) and (b) should be removed from the checklist. All others stay.

**End of Wednesday Meeting**

THURSDAY, October 9, 2008

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## **WELCOME VISITORS**

The group welcomed visitors/presenters and they were asked to sign in.

## **VENDOR PRESENTATIONS**

### **Brad Hoffman – Tanknology**

Tanknology wanted to address work group regarding water ingress into tanks containing Ethanol Blends. Showed slide presentations of lab tests for phase separation for 10%, 20%, 85% ethanol blends. The slides showed that water starts to accumulate on the bottom of the cylinder when slowly added into the 10% and 20% ethanol blends, but completely absorbed before making it to the bottom in the 85% ethanol blend. However, when the cylinder is exposed to vibrations, like during a delivery, the vibrations cause an immediate complete separation. Once separated, resulting 'blend stock' won't have correct octane for sale. About 15% by volume can be dissolved into E85, demonstrated that from 100 ml of E85 added 20 ml water, results in 113 ml ethanol/water blend and 5 ml gasoline blend stock remaining. Tanknology indicated that VacuTect and Sure Test methods can detect the water ingress, but they lower their testing threshold to .04 gph to detect at the required accuracy. Complex impedance may be able to detect even earlier.

### **Greg Young – Vaporless Inc.**

High throughput location issues: shortening of catastrophic line testing times; testing overfill. Greg brought it to the workgroups attention that viscosity, which is based on molecular size, affects flow through the orifice that all leak detectors are based on. Alcohol being a less viscous fluid is mixed with fuels, causing them to be less viscous, will then allow a greater 'leak' to get through the same size orifice before it is detected. Greg notes that as fuels change the orifice must change per leak detector manufacturer to meet the 3 gph at 10 psi within one hour. Manufacturer specific guidelines to the test methods in order to test alcohol and bio-diesel blends can be adjusted for those viscosity changes, when done properly. He represents that the manufacturer of the leak detector should specify those requirements, not the manufacturer of the test method.

Currently there is no Line Leak Detector that can test a pressurized piping at the 3 gph at 10 psi within one hour on sites where the submersible is pumping 24/7. So, states must enforce the requirement to obtain test results hourly. Systems can be made to meet these requirements if they are enforced.

### **Steven Purpora – Purpora Engineering LLC.**

He wanted to address the group about Line Tightness Testing Issues. Issues: Some truck stops have lines of multiple materials in the same line in some locations, which create testing problems. The multiple materials in the same line change the bulk modulus, which directly affects the testing. Poor truck stop design or planning has lead to many large scale releases.

In addition, some pumps pressurize to 50 to 90 psi, and the lines are supposed to be tested to 1 ½ times the operating pressure. This may be beyond one of the multiple piping materials maximum pressure.

Many EPLLD's are programmed improperly for the Leak Detector installed because of these issues for either pipe length or operating pressure.

Multiple piping materials cause air pockets especially when changing diameter, or piping types in the same line.

Lower volumes should have tighter tolerances – such as .005 gph

Pipe manufacturers need to coordinate with leak detector manufacturers for listings.

### **Dr. Sam Gordji – SSG Associates**

Calculation for finding Tank dimensions using static verses dynamic calculations. This is not part of the workgroups mission but we allowed him to speak. Dr. Gordji gave web references to his calculators, for those who were interested. And, added that it cannot be used for sloped or non-cylindrical tanks.

### **Ken Wilcox – Ken Wilcox Associates**

Ken talked about the 3<sup>rd</sup> party certifications for bio-fuels and Ethanol's. The workgroup mentioned the disclaimer that we approved to be on the web pages for alternative fuels. Ken indicated that some of the tests can meet the requirement by lowering the detection level.

### **End of Presentations**

### **Discussion of LOOP system installations**

OPW has an approved installation in TN, but must use 'evac' system because of the 1/8" piping slope requirements are not possible. However, the 'evac' system is not 3<sup>rd</sup> party approved with NWGLDE. Some are proposing to use it without the 'evac' system. States might want to review the e-mail string generated by ASTSWMO to better inform themselves of the issues related to the Loop system.

### **Discussion of Presentations**

- Ethanol issue that Tanknology brought up will require Tanknology to revise their protocol and 3<sup>rd</sup> party evaluation of their system for them to be able to apply their system to those alternative fuels that way.
- May need to add compatibility for 'life of UST System' to equipment evaluated. Would have to have this included in the evaluation of systems. If workgroup takes on the compatibility issue may add to scope of workgroup. EPA will need to revise test protocols to provide sufficient scientific basis for evaluation related to compatibility concerns.

- Greg Young's discussion of Leak Detectors never going into test mode is an important issue individual states are going to have to look at to enforce. In addition, incorrect testing due to different specific gravity caused by alternative fuels is an important issued – they need to be using the correct protocols for testing and may need to determine the specific gravity each time they test. May need to revise their protocol and 3<sup>rd</sup> party evaluation of their system also.
- Steve Purpora's discussion contained the same issues he brought up before: multiple piping types cause problems. However, it may roll into compatibility for 'life of UST system' if that scope is taken up by the workgroup.
- Sam Gordji – no comments.

### **END OF THURSDAY MEETING**

FRIDAY, October 10, 2008

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#### **New Business Continued**

- Discussion of LustLine Article.
  - o One more sensor article to be revised.
  - o Refer to Ellen to LD issues with ethanol and bio-diesel blends affecting accuracy. i.e. Greg Young – Vaporless.
  - o Also can have a flow chart of companies who bought other companies or link on our website. Helen volunteered.
  - o What is available for interstitial monitoring with Energy Act requirements.
  - o Why were doing 3<sup>rd</sup> party certifications – Curt indicated interest.
- Discussed adding URL of State/County for member list. Jon showed that it has been done already.
- Discussed EPA memo on National Tanks Conference Meeting frequency changes and effects on NWGLDE meeting frequency. Plan on still meeting every 6 months. March 2009, in Sacramento; late September – October 2009, in Annapolis, MD.; March 2010, Mobile, AL (tentative). Tim will check with OUST.
- Discuss elections and terms of service. Lamar proposed to change Chair and Vice Chair terms to 4 year beginning now. This was unanimously adopted. Greg nominated Curt as Chair and Lamar for Vice Chair. The proposal was unanimously adopted.

#### **Old Business**



- Discussed the Work Group Logo. Since Scott Bacon left the Work Group, we have given up on the one Scott was working on. We will start over using just the acronym. Jon will work on variations and send via email.
- File Retention Committee Report, Curt and Lamar – did we get the files from Scott yet? – No. He still needs to send. John Kneece’s files were received on CD, but lost and we need another copy. Lamar will pursue both issues.
- Review of Policy Memos. Review each time between meetings and bring ideas.  
Current review:
  - o Strike item on policy memo #1, item #V(2).
  - o Strike item on policy memo #3, item #2(c) strike time frame fro review.
  - o In policy memo #3, work group review policies section, item #2 (D)2 add; ground water must be taken into account on empty tanks.
  - o In policy memo #4, paragraph 2, add a time requirement deadline of 2 weeks prior to meeting.
- Discuss review of any other issues not previously discussed.
  - o The Standard Operating Procedures (S.O.P.) Manual for the IMOTD Team that Tim is working on for sensor workgroup can be made available to other teams when Tim is able to complete it. Peter Rollo will beta test the process and Tim will make the S.O.P. available after making any necessary modifications.
- The next meeting is in Sacramento, California, during the National Conference. Mike Juranty is going to take the minutes, and Tim on the following meeting.

## **Team Meetings and Adjournment**

Revised 11/5/2008; wm

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Wisconsin Dells, Wisconsin  
October 8-10, 2008

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