

NATIONAL WORK GROUP on LEAK DETECTION EVALUATIONS

Minutes of March 22-23, 2000 meeting Portland, Oregon

March 22, 2000. Called to order at 1:00 PM.

TEAM REPORTS

Non-volumetric:

SDT 150: Requested information has not been received. Review discontinued.

US Test: Spec sheet comments will be revised to add "Maximum background noise and signal to noise ratio is programmed into the computer by the vendor and not revealed to or adjustable by the operator."

Horner EZY 3: Vendor inquired about using the device on tanks outside the capacity limits listed on the spec sheet. Another third party evaluation is being conducted to support different capacities and ullages.

Petrovend Hasstech merger: Some Hasstech products will be marketed under the Petrovend name, some Hasstech products will be dropped, and vendor wants some corrections or changes to existing spec sheets. E-mail and letter has been sent to Petrovend. Waiting for a response on:

- Specify which Hasstech equipment will continue to be produced, supported, and named Petrovend.
- Specify which equipment will no longer be manufactured.
- Specify which equipment will remain on market under Hasstech name with and without support from Petrovend.
- Letter from third party evaluator that Hasstech model XXX is identical to Petrovend model ABC.
- Change requests to existing spec sheets must be in writing and supported by third party evaluation.
- Effect of Hasstech equipment marketed by Arizona Instruments.

Triangle System 500 changes have been finalized and will be in the seventh edition.

Pipeline:

Hansa Bulk Pipeline: Evaluation has not been submitted.

UTS 6000: Waiting for requested information and clarification to third party evaluation.

United Kingdom - Martin Zarrop (vendor unknown): Inquired about testing methods. E-mails and letter was sent. No response received.

Siemens inquired about underwater bulk pipeline method. Nothing has been submitted yet.

Tracer ALD 2000 has been finalized and will be in the seventh edition.

Heath Petro Tite Line Tester: Vendor is questioning the leak threshold on the NWGLDE spec sheet. Third party evaluation and Heath literature will be reviewed.

Volumetric: No activity.

Bulk Tank:

Three systems have been reviewed. Waiting for protocol to be finalized before they can be added the list.

ATG:

Ronan: Use with other manufacturer probes is under review.

Centroid: No response to requests for additional information.

Omntec: Probe comparison reviews have been finalized and will be in the seventh edition.

Advanced Telemetrics: Review finalized and will be in the seventh edition.

Emco EECO System TLM: Now called Emco EECO system 1000, 1500, 2000, 3000, and Galaxy.

CITLDS: 1997 protocol has been corrected and clarified.

Veeder Root and Gilbarco are now listed.

Emco: Data resubmitted and under review.

Incon: Data being resubmitted for third part review.

Marley: Waiting for requested information.

EBW and AZI: Nothing has been submitted.

Sensors:

Simone: Review finalized and will be in the seventh edition.

Discriminating sensors: discussed third party testing with water, product, and floating product.

SIR:

Mass Tech is representing Leighton O'Brien Ltd Red 1. Evaluation not yet submitted.

TEAM ASSIGNMENTS:

Sensors and vacuum: Leader - Tim White. Members - Jon and Shahla.

CITLDS: Shahla is going off this team. All other CITLDS team members remain the same.

All other teams remain the same.

SURVEY FORM: Very few recent responses. We have not received any complaints.

HTML marking: There have been phone requests to link Part II Table of contents to the specific spec sheet or vendor section in Part II, and link the device listed in Part I to the specific Spec Sheet or Vendor Section in Part II. Curt was not sure if this could be done. This is being researched.

HARD COPIES: Paper copies of the list are being discontinued. Future editions will be on the OUST web page or any other web sites wanting to list it.

Wednesday meeting concluded at 5:15 P.M.

THURSDAY MORNING – VENDOR PRESENTATIONS

UNIVERSITY OF WISCONSIN - Jack Quigley:

Proposed a committee of vendors, marketers, major oil, testing organizations, PEI, API, and NWGLDE to review protocols. Costs would be recovered from the party requesting the protocol modification or development. Discussion included:

- The document must be available to all rather than the developer claiming proprietary ownership.
- The protocol must thoroughly test, challenge, and evaluate the equipment without compromise or influence by the industry, vendors, marketers, major oils, etc...
- What about existing protocols?

Jack will submit a detailed proposal to Curt in mid April or May.

AIRPORT HYDRANT FUELING DISTRIBUTION SYSTEMS - Alaska Airlines API/ATA - Jacqueline Drumheller and Ken Wilcox: Kansas City Airport study of pipeline leak detection systems for bulk airport hydrant fueling systems. Much of this is proprietary and must be obtained from API/ATA.

Technologies tested included:

- Pressure step
- Pressure decay
- Wave decompression
- Vapor monitoring
- Chemical marker
- Acoustic
- Volumetric

Technologies not tested include:

- Product sensitive probes
- Ground penetrating radar
- Helium
- Mass balance
- Optical deflection
- Product sensitive Cables
- Inventory reconciliation
- Smart pigs
- In situ
- Double-wall piping

Variables include:

- Trapped vapor
- Temperature differentials
- Elevation differentials, particularly with dual pressure devices
- Above ground pipe connected to underground pipe
- Leaking valves
- Weather

- Location of leak relative to the sensors, particularly with wave decompression and acoustic
- Backfill material
- Groundwater depth, particularly with external vapor or chemical markers

Application must be site specific. What works at one site may not work at another site. All technologies have some issues that may effect their use at a particular site. The full API/ATA study should provide guidance to aid in technology selection for a particular site conditions. Full report should be published by third quarter 2000. Results to be more fully presented at the September 21, 2000, API/ATA workshop in Austin Texas.

THURSDAY AFTERNOON

PROTOCOLS:

Bulk Pipeline:

MALT: Needs changes to make it generic.

SIR: None

Bulk tank:

The existing Bulk Tank protocol is adequate for mass based system but needs work for volumetric based systems. Three different companies using a volumetric method have been tested to this protocol; however, the sections needing clarification to make the protocol valid for volumetric systems have not been corrected. We have outlined the required changes; however, have not received a response. Once rewritten, these three devices will be reviewed again.

ATG

Manifolded Tank: Author said if someone wants it he would resurrect it. Until then, it is on the back burner.

Probe Comparison: Protocol proposed 12 tests (half of the tests required in the EPA protocol). Author has not responded since August 1999. Author said it is on the back burner until someone needs it.

CITLDS: Protocol has been completed.

Discriminating Sensors: Protocol needs to address testing with water, product, and floating product.

OLD BUSINESS:

Policy memos have been updated and will be published on KWA web site and any other web sites wanting to list it.

NWGLDE will not do primary review on protocols submitted after April 1, 2000. We will continue our review of protocols submitted prior to April 1, 2000.

Capacitance probes do not operate properly in oxygenated fuels. We discussed including this comment in the spec sheets for capacitance liquid sensor probes. No decision was reached

Heavy oil heating fuel must be heated to flow; however, heating promotes internal bacterial and sulphur corrosion, and may passivate zinc anodes. Also, the max temperature on the outer jacket of jacketed tanks should not be over 150 ° F.

Inventory control sticking may wear through single-wall fiberglass and steel tanks without striker plates.

Waste oil and #6 diesel were taken off the ATG and volumetric TTT spec sheets and replaced with "Contact manufacturer to determine applicability for other products".

FRIDAY

NEW BUSINESS

GROUNDWATER: Vacuum and Underfill TTT methods must compensate for groundwater on the tank. However, there has been a problem with testers not determining groundwater in the tank basin. Motioned, seconded and passed unanimously to reword the spec sheets for Vacuum and Underfill TTT methods to read "The height of water on the tank must be determined at the time of the tightness test by soil probes, well points, or observation wells in the tank backfill." Letter will be sent to the appropriate vendors.

SIR / ATG leak rates:

Can a vendor certified for 0.1 gph test also do 0.2 gph tests? Originally, the statistics were to be reworked for the 0.2 gph pd/pfa. Protocol, however, states if it meets a 0.1 gph it also meets 0.2 gph. Consensus was that if a vendor has the calculations reworked then the spec sheet would list both 0.1 gph and 0.2 gph. If it has not been reevaluated or reworked for 0.2 gph then the spec sheet will have a comment that 'Device was evaluated at 0.1 gph. Protocol allows units evaluated for 0.1 gph to be used for 0.2 gph tests without a separate 0.2 gph evaluation.

SIR Threshold:

Devices using a variable or floating threshold should not be listed as a fixed threshold. These are being addressed as they come up.

AUTO STICK: The current list has Auto Stick Junior and Auto Stick II, but not Auto Stick. EBW noticed that Auto Stick was on a prior list but is not on this list. Curt will check old lists and report back to the team and at the fall meeting.

Next meeting October 3 through 6, 2000 in conjunction with PEI Expo to meet with vendors, interact with members of the petroleum industry, and increase knowledge of the NWGLDE members. John Kneece will take minutes.

Attendees for March 22 were

all NWGLDE members

Laura Chaddock with Ca SWRCB

Fred Hutson with MO DNR.

Attendees for the March 23 vendor presentations were

All NWGLDE members,
Cliff Miller, USTMAN consultant
Ken Wilcox, KWA
Jacqueline Drumheller, Alaska Airlines
Howard Dockery, Simmons
Laura Chaddock, CA SWRCB
Bob Mitchell, SIR International
Ev Spring, Spring patents
Sam Gorji, SSG Associates
Jack Quigley, University of Wisconsin

Submitted by Jeff Tobin