United States Environmental Protection Agency

Meeting Summary of the National Work Group on Leak Detection Evaluations Whitefish, MT 11-12 September 1997

Office of Underground Storage Tanks

Members Present

Lamar Bradley
Russ Brauksieck
Beth DeHaas
Bill Faggart
Shahla Farahnak
Curt Johnson
Mike Kadri
Jeff Tobin
Ellen Van Duzee
David Wiley

Day 1

General Issues/Discussions:

1. Curt Johnson collected list corrections and additions. Requested that any others that are to be included be given to him by October 1.

2. Issue raised as to problems with mergers and buyouts. Makes list maintenance difficult. It was agreed that a listing date be updated whenever a listing is added or revised.

3. Problem discovered as a result of article in Petroleum Equipment and Technology. Got quite a bit of response from folks not on the list. Illustrated problem with fact that, although lists are mailed to all vendors, they evidently aren't getting to the correct contact. Generally agreed that the onus is on the vendor to provide up-to-date contact and address information.

4. At last meeting, it was decided that ATG vendors could have their equipment listed for use with tank volumes under 50% if some additional data were provided to validate use at lower levels. Memo was sent out on April 28 to ATG companies. To date, no vendor has appeared overly eager to seek such a listing. The work group agreed that education is needed to alert inspectors to fact that currently tests performed at volumes under 50% have not been demonstrated as being valid.

5. Discussion as to greater team (as opposed to individual) involvement in evaluation review process. Proposed that a vendor send a copy of evaluation to all team members. Only one individual need do the detailed write-up, but others should look it over to see if anything glaring is missing or overlooked. Counter arguments that most evaluations are cut-and-dried. Full group review not necessary. Full group involvement should be limited to more complex cases.

6. Discussion of SIR and "electronic sticks" (i.e., simple electromechanical gauges). It was agreed that a gauge, itself, need not be separately evaluated. However, if an

evaluation was done exclusively using electronic stick data, this would need to be stipulated in the write-up.

7. This was Lamar Bradley's final meeting with the work group. There was much weeping and gnashing of teeth. Necessitated new team leader being chosen for SIR.

8. Began discussions of the protocols submitted by Ken Wilcox Associates: ATGs on Manifolded Systems, CITLDS, Liquid Level Sensors, Vacuum Interstitial Monitoring, Inventory Reconciliation Gauges, and the revised SIR protocol. It was decided it may be useful to bring others into the review process.

Official Motions:

Motion: That Bill Faggart be made team leader of the SIR group
Motion passed.
Beth DeHaas added as team member.

Motion: That the pipeline group choose their own team leader.
Motion carried by consent.

Vendor Presentations:

Evaluations of Leak Detection Systems (Jerry Flora, MRI)
Brief Summary: Review of EPA protocol development and the intent of protocol developers. Arguments against extra set of requirements for CITLDS beyond those in existing protocol. These extra requirements would place more stringent requirements on CITLDS than on other methods such as SIR and ATGs. Proposed that the memo on variable leak rates and field testing be withdrawn.

PD and PFA (Ev Spring)
Brief Summary: Basically, the issue of PFA is grossly underestimated. There are a host of factors that contribute to an increased probability of false alarm over which the leak detection equipment has no control (e.g., height of ground water, rapid fill and empty of tanks, partially exposed systems, uninsulated flex connectors). These need to be recognized and taken into account. Can get insurance companies involved, acting to ensure proper design, construction, and installation of systems. Leads to lower premiums and better compliance.

New Methods of Detection of Leaks in USTs (dirty little tricks of SIR methods) (Ken Wilcox, KWA)
Brief Summary: The existing SIR protocol does not address a number of known issues, such as meter calibration drift, under/over-sized tanks, delivery discrepancies, tank geometry, pilferage, human sticking errors, and tilted tanks. Nearly every vendor claims to be able to check for these, but there is no verification during the evaluation. You have to wonder about these claims when some vendors miss the obvious—as with a missed delivery being reported as a sudden 300 gallon influx. These types of things could be tested under a new protocol. However, do folks want a new protocol? Would vendors have to be recertified? There could be fireworks if so. KWA prepared a draft protocol but it hasn't been touched in a year. It might take 100 hours to finish it up.

Issues Regarding Third-Party Certifications (Jeff Wilcox, KWA)
Brief Summary: KWA has developed a number of proposed protocols to address issues raised by vendors and regulators: Large Field Constructed Tanks (approved); Vacuum Interstitial Monitoring Methods (done in response to client); Liquid Level Sensors (pretty much qualitative); Tank Gauges (SIR that can be linked to POS devices and not specific to any particular gauge; test simply sees if gauge can manage 1/8-inch resolution); CITLDS and Hybrid SIR Systems (uses field testing and offers alternative to existing protocol—the MRI protocol is frustrating for the evaluator since the vendor creates leak algorithm, collects data, etc., effectively removing the evaluator); ATGs for Use in Manifolded Tanks (addresses issue raised by Jerry Flora on how tests for manifolded tanks not universal to all protocols).

Day 2

General Issues/Discussions:

1. Discussion continued on new protocols.

- Shahla Farahnak took the lead on the new CITLDS protocol and will send it out to others for review.
- The liquid level sensor protocol was deemed pretty simple and was found to be acceptable. It was agreed, however, that there were extra considerations that would need to be made for use in ground water wells.
- The vacuum interstitial protocol was viewed as promising though evidently not quite complete.
- The liquid gauges protocol was deemed to be outside the purview of the group as it dealt with a component of a leak detection method but not the method, itself.
- Concern over the SIR protocol in making sure that it is as comprehensive as possible. Want to limit the number of hoops vendors must jump through. The final product should cover all the major bases, including manifolded tanks and high thruput systems.

2. Discussion on role of seeking public comment on proposed protocols. Several members felt that the role of the work group was limited to providing work group comments only. Outside comments would be welcomed by the work group but the work group would not go about soliciting comment—that is the duty of the protocol's developer. Other members felt the work group should play a more proactive role, seeking out input from industry experts. Also explored means by which communication between commentors could be strengthened. Use of a web site was generally viewed as being an attractive alternative if the resources were available.

3. Members discussed the role of the group as a whole vs. that of individual review teams in accepting protocols. While most members liked the concept of increased levels of communication, there was also fear of further delay to an already slow process.

4. The group debated the issues surrounding the additional requirements placed by the group on the CITLDS protocol by the June 13, 1996 memo. While it was generally agreed that the points raised in the memo were of real value—for example, actual field testing—the manner in which it was carried out was flawed. Such issues should be addressed directly in protocols rather than in memos.

5. Problems with the list in the case of owner transfers. Currently, the list shows "ZZZ Corp. (formerly XXX Inc.)" However, this does not aid users who are trying to look up XXX Inc. for a piece of equipment found on a site. Cross-referencing might be helpful. Shelved for now.

6. Discussion of reported system gains. Methods that ignore large volume increases, simply regarding them as "passes," are problematic. States have been left to interpret this as they see fit. Guidance could be provided to list readers, pointing out that excessive gains, like excessive losses, are matters of concern.

7. Group agreed to make meeting summaries available to all interested parties.

8. Search to begin for a new group member.

9. Next meeting scheduled for Long Beach, CA, following the Annual UST/LUST National Conference that runs from March 30-April 1, 1998.

10. Jeff Tobin "volunteered" as minutes taker in Long Beach.

11. Discussion on substance applicability for a method; that is, just because a method worked with gasoline and diesel, does that imply it would work for used oil? It was suggested that the vendor listing distinguish between what the method was actually tested with and what other substances the vendor claims the method can be used on. It was pointed out that applying this retroactively to all existing listings could be problematic, especially since some vendors provide nothing beyond the required data sheet and do not list ancillary items.

12. Preliminary report from Russ Brauksieck on early efforts in NY in looking at leaking tanks whose leak detection methods had indicated the tanks were tight. Only just starting, but should prove insightful. Larger, multi-state review of such data would be useful.

Official Motions:

Motion: The work group will review protocols for technical aspects and to assure that protocol meets EPA criteria for alternate protocols. The review team may seek out input from experts if needed. Work group comments and needs will then be provided to the author of the protocol.
Motion passed.

Motion: Move that once team prepares recommendations and sends to author, pursuant to that, the final decision to accept protocol is a full work group decision.
Motion passed.

Motion: Move that we accept those vendors that pass MRI CITLDS protocol as-is as long as they meet the requirements of that protocol.
Motion passed.

Motion: Motion that we set a goal that within one year, we go through all evaluations, and teams determine actual products certification was done upon and rewrite applicability section to reflect what was actually tested and also what the vendor claims can be done.
Motion failed.

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