

**Minutes of the  
September 26-28, 1994  
Meeting of the  
National Workgroup On  
Leak Detection Evaluations**



The meeting began at 8:00 AM, September 26 with all members present except for Lamar Bradley who arrived during our tour of Carnegie Mellon later in the morning.

Discussion began with a summary by Mike Kadri of his evaluation of Campo-Miller's Jetronics tests. Mike recommended further work be done to evaluate their 0.1 gph method but he felt their 0.2 and 3 gph test evaluations were satisfactory.

Curt distributed a draft copy of an article he had written for LUSTline for review and comment..

There was more discussion on questions about the list such as

Who will print the list? (EPA-Wash. D.C.)

How will the various states use the list?

What methods will be on the "under review" list?

Should there be another issue of the Region 10 list?

It was decided that the first issue of the list should include a correction sheet.

It was moved and seconded that our 1st draft of the list be out by the next group meeting.  
Motion carried.

It was also decided that "other" methods would be included in this first list. The list should include all methods we have received information on - either in the description section or in the "under review" section.

At approximately 9:30 we left for a meeting at Carnegie Mellon with Marc Portnoff and Anthony Barack.

Marc Portnoff - Vapor and liquid detectors can be evaluated in a lab.  
Carnegie Mellon works on technology transfer from the university to industry.

Design - Implementation - Technology Transfer

C.M. Test procedures            -Vapor Phase  
   -Liquid Phase  
   -Equivalent Test Procedures

Done on a cost recovery basis

Multiple protocols have been developed for Vapor phase, Liquid contact- interstitial or point sensors and Liquid contact- cable sensor.

Liquid phase is a performance evaluation for accuracy and response time under standard conditions

Cable sensors - In some cases distance will increase response time. Tested at max. effective range and at 1/3 and 2/3 this range.

Trace teck must be replaced after contact. Gore and Permalert claim can recover in field but have not been tested for this.

Gore and Permalert operate under the same principal. Copper wire covered with goretex. Send electronic signal and wait for return. If wire is wet then return signal will change. Limited by distance

Paychem/Traceteck has two wires covered with polymer which expands wetted and shorts wires. Methods must be tested using each product it is to be used to detect..

Marc also gave a brief explanation of specificity.

After lunch the workgroup returned to the Hotel to continue the meeting.

It was decided that the leak detection methods would be listed by the type of method not by the protocol they are evaluated under. Methods evaluated using a significantly different protocol shall be noted in the comments.

The procedure to follow when writing up a description shall be as follows;

1. The work group member responsible for reviewing a method shall prepare a draft description. This draft may be circulated among various group members for comments and corrections.
  2. A final draft version of the description shall be submitted to the vendor for review and correction. Make sure the vendor receives this copy either by faxing it, confirming receipt by telephone or sending it certified mail.
  3. After correction, a final version of the description and a summary sheet listing should be submitted to Harold.
  4. At least 2-3 weeks prior to the next workgroup meeting Harold will distribute copies of new descriptions and a new summary list and under review list to all members.
- Remember all new or updated descriptions should be stamped DRAFT across the printed portion when they are sent out unless they have appeared in the list.**

Curt requested suggestions for topics for the National Meeting in March.

The question was then brought up as to whether the workgroup should be reviewing new protocols. There was a great deal of discussion on this subject and this days meeting adjourned without a decision being reached.

### **September 27, 1994**

There was further discussion regarding new protocols and it was moved and seconded that the workgroup will review both protocols and evaluations. Protocols will be reviewed to make sure they meet the 5 standards outlined for alternate protocols in EPA as follows:

1. Method is tested under both the leak and no leak conditions.

2. Method is tested under at least as many environmental conditions as the corresponding EPA test procedure.
3. Conditions under which the system is evaluated should be at least as rigorous as the conditions specified in the corresponding EPA test procedure.
4. Evaluation results must contain the same information and be reported in the same general format as the EPA standard results sheet.
5. The evaluation must include physical testing of a full-sized version of the leak detection equipment. An evaluation based solely on theory or calculation is not sufficient.

The motion passed.

A motion was made and seconded that protocol reviews be conducted by simply requesting a letter of approval from the evaluator for any new protocol. Motion failed.

Review  
Process

A motion was made and seconded that protocol review process be as follows  
 The committee reviews the protocol followed when an evaluation was done. If protocol is satisfactory then review the results of the evaluation done using the new evaluation and make sure the protocol was followed as claimed. If there are problems with the protocol then send comments and questions to the vendor and evaluator. Once the vendor and evaluator have responded draw up a brief summary of the new protocol including comments and recommendations for distribution to the workgroup. This should be distributed to all group members with a recommendation that the workgroup accept or not accept the protocol. The workgroup will discuss the recommendations at the next regularly scheduled meeting and decide whether the protocol will be an acceptable one.

The motion passed.

The new protocols that will be reviewed and the members reviewing them are as follows:

- Liquid Point Sensor - David Wiley, ~~Harold Scott~~
- Cable Sensors - David Wiley, Mike Kadri
- Continuous ATG - Shahla Farahnak, ~~Curt Johnson~~ MIKE KADRI
- Large Tank ATG - Shahla Farahnak, Ellen Van Duzee
- Large Tank Volumetric - Shahla Farahnak, Russ Brauksieck
- Vapor/Radian - David Wiley
- OMEGA, Maintaining Vacuum on Doublewalled Tanks - Tom Springer
- ~~Omega Harold Scott~~

The Workgroup then divided into committees for work on individual reviews.

### September 28

More committee work followed by a brief discussion of dates and goals for next meeting. The meeting adjourned for lunch followed by a tour of REDZONE Robotics conducted by David White

## Dates and Deadlines

- October 11 David Wiley to submit a cover letter and table of contents to all group members for review and comment.
- October 21 Randy Nelson to send draft of glossary to all group members.
- November 15 All members to have any changes, corrections and updates to Harold.  
All members to have returned comments on cover letter and table of contents to David Wiley .  
All members to have comments on glossary to Randy Nelson.  
Randy to provide a list of all "other" methods under review to Harold Scott.
- February 28 All members must have recommendations and spec. sheets to Harold Scott.
- March 13-15 National Meeting in Savannah, GA
- March 16-17 Workgroup Meeting
- Fall work Group meeting is tentatively planned for the last week in September in Portland, ME
- Tentative Agenda for March meeting  
Review comments on draft list  
Review results of the reviews of "other" methods and protocols.