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July 9, 2009

Mr. Vincent Meiller  
MC-206  
Air Quality Division  
Chief Engineer's Office  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

Dear Vincent,

Enclosed are the comments of the Houston Regional Group and Lone Star Chapter of the Sierra Club (Sierra Club) regarding the Leak Detection and Repair (LDAR) Alternative Work Practice (AWP) Rule Making Stakeholder Group Meeting that was held in Houston, Texas on June 26, 2009.

The Sierra Club wants the TCEQ address the following issues:

1) A quality assurance/quality control (QA/QC) plan must be required for proper operation of the infrared (IR) camera or other AWP. This QA/QC plan should be based on manufacturer's suggested procedures as well as any requirements that TCEQ believes should be in the plan. The plan must be approved by the TCEQ. Everything mentioned in this comment letter should be found in the QA/QC plan, records must be kept of all of these requirements, and a copy of the QA/QC plan must be immediately available at the site for investigators and must also be available to the public.

2) A calibration procedure must be required so that each person who uses an AWP will conduct calibration checks on the instrument in the same way. TCEQ must approve this calibration procedure to ensure that it is complete and valid.

3) A way to audit, both internally and externally, the AWP program and the operation, calibration, and audit procedures is needed. The audit procedure must be approved by TCEQ.

4) An operational procedure for the use of the AWP must be required. This procedure must be approved by TCEQ and based on manufacturer's suggested procedures and any additional procedures that TCEQ believes are needed. The need for this requirement was demonstrated in the discussion on June 26, 2009 where it was revealed that some users of the IR camera point the camera only at

*"When we try to pick out anything by itself, we find it hitched to everything else in the universe." John Muir*

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certain portions of a component. All portions of the component that could leak must be tested with the AWP for a certain period of time as required of the portable hydrocarbon analyzers in the normal LDAR program to ensure that all leaks are found. The TCEQ should also have a procedure that reduces the effects of elements (like heat sources) that can interfere with proper operation of the AWP.

5) If a company wants to use an AWP, like an IR camera, it must in some way equate the picture the IR camera shows with a certain level of leak (ppm value) if the leak is not to be analyzed with a portable hydrocarbon analyzer after it is found. Otherwise you will not know when a component exceeds its' ppm limit. The ppm limit must be known if the date of first repair and other time limits are to be met. An alternative could be that any leak found, no matter how small, will be required to meet leak repair dates.

Having a ppm value is particularly important for emissions inventory (EI) purposes. The Sierra Club supports an LDAR program that uses an AWP but also requires that each leak has its ppm value determined with a hydrocarbon analyzer that meets Method 21.

6) The company must clearly state what volatile organic compounds (VOC) either cannot be monitored by the AWP or that can be monitored with less than full confidence. What will be done about LDAR for these components in VOC service must be stated clearly in the QA/QC plan.

7) AWP's may be particularly helpful for difficult to monitor or unsafe to monitor components. In particular, highly toxic and highly reactive VOCs should be one focus of LDAR to ensure that these emissions are reduced as much as possible.

8) TCEQ should use the following for justification for an enhanced LDAR program that uses the IR camera or other AWP:

1. Ambient air quality, in particular ozone, will be improved by such actions which benefits the health of millions of people in regions of Texas.
2. Toxic air emissions will be lowered which means that these industries will start behaving like good neighbors to fence-line communities.
3. Occupational levels of harmful chemicals will fall which means workers will be sick less and the industries will save money on health care plans.
4. Economically these industries benefit by saving product and creating more efficient processes that generate more money.

5. By using the IR camera along with regular LDAR hydrocarbon analyzers the industries ensure that explosions, fires, and releases are minimized, capitol investments are protected, and people are not injured or die.
6. The refinery and petrochemical industries can easily afford buying or leasing IR cameras especially since in the past several years they have had record profits or the cost for an IR camera is a miniscule expense for the benefits derived (high cost/benefit ratio).
- 9) Because the IR camera or other AWP is thought of as the best supplemental technology it makes sense for TCEQ to require its use via rule. TCEQ should require that for units where LDAR is not currently required, such as storage tanks, flares, incinerators, process vessels, loading and unloading, and transport vehicles, that these units should by rule be required to conduct LDAR via hydrocarbon analyzers or an AWP and a hydrocarbon analyzer that verifies leaks.
- 10) The Sierra Club supports a more frequent use of the IR camera or AWP. If the IR camera is as good as those who use it suggest then the Sierra Club recommends that monthly monitoring with the IR camera be required to ensure that all leaks are found.
- 11) Records must be kept of AWP use and what equipment was inspected for leaks. These records must be at least as extensive and comprehensive as those that are now required for hydrocarbon analyzers using Method 21.

The Sierra Club appreciates this opportunity to comment. Thank you.

Sincerely,

Brandt Mannchen  
Air Quality Issue Chair  
Lone Star Chapter of the Sierra Club  
Chair, Air Quality Committee  
Houston Regional Group of the Sierra Club  
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