Florida Department of

Memorandum Environmental Protection

To: Nicanor Madrid
Hazardous Waste Permitting Section

From: Andrew Tintle
Environmental Assessment Section

Date: July 18, 2005

Subject: Field Sampling Performance Audit Report
Amrep (Petrochem)
Jacksonville, Florida

Please see the attached report and checklist for the field sampling performance audit conducted at Amrep (Petrochem), Jacksonville, Florida on October 19, 2004. The audit was conducted by the Environmental Assessment Section (EAS) and included a subsequent review of sampling logs and other documentation for the audit day that were submitted by the permittee's consultant.

Sampling activities were audited using the DEP SOP ("Standard Operating Procedures for Field Activities", DEP-SOP-001/01), revision January 1, 2002. The consultant indicated the intention to follow this document for the audited sampling event.

Summary of audit deficiencies

1. Purge Volumes
   a. The DEP Field Activity SOPs in FS 2200 have minimum amounts of purge water that must be purged before sampling can take place.
      1. Purging from the top of the water column where the screen interval is completely submerged (MW-11 for this project)
         i. The first set of field measurements needs to be done after one well volume is removed and thereafter at a minimum of ¼ well volume. The requirement is to demonstrate stabilization of field measurements with three consecutive sets of measurements. The minimum volume that could be purged if the first three sets of field measurements stabilized would be 1½ well volumes. This minimum amount was not purged for the indicated well.
      2. Purging from the middle of the screen interval where the screen interval is completely submerged (MW-5 and 12 for this project)
         i. A minimum of one equipment volume to include the pump volume, the tubing capacity and the flow through cell must be purged before the first set of field measurements is taken. Thereafter measurements may be taken every two minutes until stabilization is achieved but a minimum volume of three equipment volumes must be purged. It was not clear from the project records if this minimum volume had been achieved.

2. Bailers were used at MW-11 for the collection of semi-volatile organics. Bailers are not recommended for sampling when low levels of the target analytes are expected or where the goal of the monitoring is permit compliance. See Table FS2200-3 for guidance on the use of bailers. The peristaltic pump can be used to collect semi-volatile organics if the trap assembly detailed in Figure 2200-1 of the DEP SOPs is used.
3. Standard concentrations selected for specific conductance calibration must bracket the concentrations of the project samples. The low level standard of 500 µmhos/cm just exceeded the low level conductivity measurements of the audited samples.
4. The presence of ice was not documented for project analytes that require cooling as a preservative.

Response requirements

The permittee or the permittee's consultant should be asked to respond to the audit report by addressing each deficiency noted in the attached checklist, as explained by the checklist legend. The response should include the specific corrective actions to be taken. Some checklist items may indicate that additional information should be provided in order to determine whether the audit criterion is applicable or was satisfied. The response may include discussion of any items in the report for the purposes of clarification or rebuttal.

Issuance of final audit report

When all responses have been reviewed, the EAS will issue the final audit report package consisting of the preliminary audit report and the EAS evaluation of all responses.

Please let me know if you have any questions or need further assistance.