Memorandum **Florida Department of Environmental Protection**

To: Satish Kastury, Env. Administrator
Hazardous Waste Regulation Section

To: Bheem Kothur, P.E. III
Hazardous Waste Regulation Section

Through: Russ Frydenborg, Env. Administrator
Environmental Assessment Section

Through: Andy Tintle, Env. Specialist
Environmental Assessment Section

From: Michael Blizzard, Env. Specialist
Environmental Assessment Section

Date: June 27th, 2003

Subject: Summary of acceptable corrective actions in response to DEP field audit
Silver Springs Shores (former GDU surface impoundment)
Ocala, Marion County, FL
Audit date: 7/22/02

Reference: Draft DEP field audit report, 9/6/02 (Environmental Assessment Section)
Corrective action response, 12/6/02 (letter from Hartman & Assoc., Inc.)
EPA ID # 981 022 460

The permittee was asked to respond to both the "Summary of Deficiencies Requiring Corrective Action" in the body of the subject DEP draft field audit report, dated 9/6/02, as well as the specific deficiency items designated in the audit checklists attached to the report.

The permittee's responses to the Department's request for specific corrective actions for each reported deficiency are contained in the consultant's report dated 12/6/02. The consultant has adequately responded to all deficiencies noted in the field audit report except for the comments listed below.

With this memo, the Environmental Assessment Section has determined that the permittee's consultant has taken appropriate corrective actions pursuant to the subject audit report, except for additional instructions for corrective action contained in the attachment. No final audit report will be issued. The draft audit report and checklists, taken together with the consultant's response and this memo and summary of corrective actions will comprise the final audit report.

If you have any further questions concerning this audit, please call me at 5073 or email me.

Attachment: Summary of corrective action responses

Copies to: file
Andy Tintle
Russ Frydenborg
Amy Wheeler

Summary of Corrective Actions in Response to Sampling Performance Audit Report

Silver Springs Shores (former GDU)
Marion County
EPA ID #981 022 460

Comments are listed by category and numbered accordingly as published in the draft field audit report.

Groundwater Monitoring Well Purging and Sampling

8. Corrective action is acceptable, however, the auditors note the following concerning the consultant's response: samplers' "Field Log" for the audit date and audited monitoring well does not specify field cleaning steps performed; and, the pH check recorded in the "Field Log" for MW-3 indicates marginal pH acceptance for the cyanide sample (pH=11.64), with no further corrective action documented for the affected sample. There is no indication that cyanide samples were checked for the presence of sulfides.

Quality Control Samples

Additional information sent with the consultant's response is unclear as to whether a required "field-cleaned" equipment blank was collected.

Field-testing Equipment Calibrations

1. Corrective action acceptable. The auditors note the following concerning the additional information sent with the consultant's response: calibrations and their documentation for the audited event date do not conform to FT 1000 and FD 4000; and, the information in the samplers' "Field Log" is incomplete for verification of acceptable calibration according to DEP SOPs.

Other Documentation Deficiencies

1. Corrective action acceptable. Additional information was provided in the consultant's response. See previous comments above. Preservations must be documented per DEP SOP requirements.

3. See checklist comments below for responses.

The following comments refer to the consultant's response to audit checklist items noted as deficiencies (checklist source noted in parentheses).

Groundwater Audit Checklist (Draft FS2200)

13. No response. However, the auditors' comment indicates that the original deficiency was noted in error on the checklist. The consultant should use a graduated purge overflow bucket for flow measurements.

18. & 20. No response. The auditors failed to note the deficiency for item 20 on the checklist, although the issue of pump placement in relation to water level was elsewhere noted in the audit report. Information about pump immersion depth should be recorded at all instances of positioning or repositioning of the pump to allow for verification of proper placement and purge technique. Additional information provided elsewhere for this topic by the consultant is unclear about pump placement for other wells not audited during this sampling event. Placement may have been too far below water level for the purge technique employed, as was noted for the audited well. However, the consultant has indicated appropriate corrective actions to be taken in the future.

22. No response. However, the consultant has indicated appropriate corrective actions for measurement of dissolved oxygen and other stabilization parameters elsewhere in response to other items. Stabilization of dissolved oxygen per DEP SOP requirements must be attempted even though the <20% saturation threshold may not be achievable. If increasing or decreasing trends in dissolved oxygen readings are noted, the samplers should attempt additional pumping (up to 5 well volumes) to stabilize readings.

Decontamination Audit Checklist (DEP 1992)

1. No response. Sampling equipment should be brought precleaned to the field.

3. No response. However, additional field log information is provided with the consultant's response to other items and is appropriate. See previous comments.

4. – 8. Acceptable response. See previous comments.

Field Quality Control Audit Checklist (DEP 1992)

1. No response. However, the deficiency is not applicable to the number of samples collected and was originally noted in error on the checklist.

2. No response. However, additional information has been provided by the contractor concerning equipment blanks. The auditors note that it is unclear from the samplers' "Field Log" whether a required "field-cleaned" equipment blank was collected after field decontamination of the pump.

4. No response. However, equipment blank collection was not audited and the deficiency statement was noted in error on the checklist and can be disregarded.

5. No response. See comment #2 above.

8. No response. However, additional information has been provided by the consultant to indicate that calibration was attempted on-site prior to purging the first monitoring well.

9. No response. Additional information provided by the consultant indicates 1992 DEP SOP calibration requirements were not met, except for dissolved oxygen. The consultant must ensure conformance with DEP SOP calibration requirements for future DEP regulatory work.

Sample Containers and Preservation Audit Checklist (DEP 1992)

5. – 7. No response. These items were not audited, since sample preservation on-site was not observed, and no deficiencies are noted.

8. Response inadequate. The samplers were not able to verify a pH > 12 for the preserved cyanide sample documented in the copy of the field log that was provided as additonal information for the consultant's response. Cyanide samples must be checked for sulfides in the field and treated for sulfide removal or analyzed within 24 hours if sulfides are present or if the sulfide test is omitted.

9. No response. See above.

10. No response. See previous comments. Additional information provided with the consultant's response indicates that one set of samples was checked for adequate acidification.

11. No response. Auditors did not check for wet ice storage of samples on-site. However, the field log provided in the consultant's response indicates the use of ice for the samples.

12. No response. Auditors did not check packing of sample ice chests and no deficiency is noted.

Sample Custody and Documentation Audit Checklist (DEP 1992)

6. No response for the following items: field ID for each sample container; certified or theoretical values and acceptance criteria for calibration standards; sequence of collection for sample fractions; amount of preservative added for field preservation or adjustments; location of fuel-powered equipment. All of this information must be documented per DEP SOP requirements.