FAX COVER

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Address: JOHNSONVILLE FOSSIL PLANT

Date: 7/21/93 Number of pages: 4

Fax Number: (615) 535-8625 Verification Number:

Subject: JOF Rail Loop Dry Stack – QA/QC

From: Tennessee Valley Authority

Name: JERRY GLOVER Phone: 751-6427

Organization: TVA MR 3-D-C

Address: CHATTANOOGA

Fax Number: Verification Number:

Special Instructions: Let me have any comments. This is very preliminary at this point.

JFG

Important! If you do not receive all pages, call us back immediately

ATTACHMENT 1

JOHNSONVILLE FOSSIL PLANT

PARTIAL CLOSURE OF DRY ASH STACK RAILROAD LOOP - 1993/94

July 20, 1993

Scope of Work

General

Approximately 300,000 cubic yards of ash is to be reclaimed from the existing railroad loop dredge cell (designated as Area 3), dewatered, hauled and stacked on the area designated as Area 2 (29+/- acres) and capped. After the 300,000 cubic yards of material has been removed, Area 3 will be dredged full of ash from the active ash pond.

This project is to close the stacking facility (designated as Area 2) according to the proposed state permit application titled "CLOSURE/POST CLOSURE PLAN DREDGED ASH DISPOSAL FACILITY (RAIL LOOP AREA) TENNESSEE VALLEY AUTHORITY JOHNSONVILLE FOSSIL PLANT" dated August 1991. This work will include the following:

1. Finished grading (will include some excavation of previously stacked material) of Area 2 (29+/- acres) in preparation for placement of the earth cap.
2. Placement of the ash in Area 2 shall be in accordance with Section II Facility Closure Part B Complete Closure Steps 1. Stack Operations of "CLOSURE/POST CLOSURE PLAN DREDGED ASH DISPOSAL FACILITY (RAIL LOOP AREA) TENNESSEE VALLEY AUTHORITY JOHNSONVILLE FOSSIL PLANT" dated August 1991. Construction contractor shall take field in-place density-moisture content tests using a nuclear density gauge, sand cone or drive cylinder for each 5,000 cubic yards placed or a minimum of 1 test per day of placement of ash.
3. Placement of a 12-inch minimum thick compacted clay cap (66,000 +/- cubic yards).
4. Placement of a 12-inch minimum thick soil cover (66,000 +/- cubic yards) to support vegetative growth.
5. Establish a good vegetative cover over the temporary and permanent covered areas.
6. If the hauling of ash to Area 2 is halted before the final grades shown on the plans are reached, placement of a 6-inch minimum thick temporary soil cover to support vegetation.
7. If final grades are reached in Area 2 before the hauling of ash is halted, placement of the ash shall continue onto Area 1 with either the final or temporary earth cover to be done as required.
8. Construction of roadways, flowable fill, drainage, etc., as specified on the plans.

It is anticipated the reclaiming, dewatering, and hauling and placing of the ash will begin appproximately July 26, 1993. The placement of the earth cover is expected to begin around the first of October 1993 with the completion of construction for this job to be at the end of December 1993. Dredging from the active ash pond into the railroad loop dredge cell is scheduled to begin in May or June of 1994.

This construction work is to be performed by a contractor to be hired by TVA.

Quality Assurance/Quality Control (QA/QC)

The QA/QC shall be performed by a contractor independent of the construction contractor and shall be to insure that the constru;ction of the final earth cap meets the specifications given in the design documents.

The QA/QC for the final earth cap shall be performed in accordance with Section III - Quality Assurance/Quality Control of "CLOSURE/POST CLOSURE PLAN DREDGED ASH DISPOSAL FACILITY (RAIL LOOP AREA) TENNESSEE VALLEY AUTHORITY JOHNSONVILLE FOSSIL PLANT" dated August 1991 (see Attachment 2). This work will include, but not necessarily be limited to:

1. Earth borrow source testing (random sample for every 3,000 cubic yards excavated, assume 22 tests, to be tested for a) moisture-density, b) grain size analysis, and c) atterburg limits).
2. Determine soil classification (CH or CL required or alternative approved by state).
3. Make field density-moisture measurements of the clay cap immediately after compaction for each 3,000 cubic yards placed or a minimum of 1 test per day of construction per lift, assume 22 tests.
4. Verify the undisturbed hydraulic conductivity of a soil sample at a minimum of 1 per 5 acres of cap, assume 6 tests, the required vertically oriented hydraulic conductivity no greater than 1x10 -7 cm/sec.
5. Provide earth construction oversight.
6. Direct construction remedial action procedures.
7. Verify the clay cap and soil cover minimum thicknesses of 12 inches each.
8. Verify that the seeding, fertilizing, and mulching are done in accordance with the construction specifications.
9. Verify, by spot checking elevations, that the final stack elevations are in accordance with the plans.
10. A daily log, final report, and a final letter of certification of the final cap are required (minimum 5 copies). Final report should include quality control measures performed with field notes and certifications.
11. Once per week, provided a minimum of 15,000 cubic yards of ash has been placed, review the construction contractors records for the compaction of the ash placed and perform one moisture-density spot check on the compacted ash by means of either the sand cone or drive cylinder test methods.

TVA's contract administrator will be K. W. Burnett. All correspondence, reports, etc., shall be submitted to K. W. Burnett; Manager. Site Engineering; 1101 Market Street MR 3D; Chattanooga; TN 37402. The TVA Johnsonville onsite contact will be Jeff Ward or Tony Hunt.

A weekly status meeting will be held each Tuesday at the Johnsonville Fossil Plant. A QA/AC status report shall be provided at each weekly meeting.

It is anticipated that the QA/QC work will begin as early as July 26, 1993 and extend approximately 26 weeks (4 weeks beyond the end of construction of the ash stacking and earth cover, in order to complete the final report).