



Reynolds Electrical & Engineering Co., Inc.

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IN REPLY REFER TO:

580-01-578

WBS 1.2.9.1

QA: N/A

JUN 15 1994

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YUCCA MOUNTAIN SITE CHARACTERIZATION (YMP) PROGRESS REPORT (SCP: N/A)

Enclosed is the May YMP Progress Report for Reynolds Electrical & Engineering Co., Inc.'s participation in the YMP. The Variance Analysis Reports are not enclosed and will be submitted under separate cover.

If you have any questions, please contact Dean L. Knight at 794-7400.

Daniel L. Koss, Manager
Yucca Mountain Project Division
YMP Technical Project Officer

DLK:SEW:L94201:1k

Enclosures

1. Progress Report (7 pages)
2. Cost/Full-Time Equivalent Report (1 page)

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Information Services Center, M/S 408
M. M. Martin, M&O, M/S 423

cy w/encl. 1

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REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
(REECo)

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT (YMP)

MAY 1994 - PROGRESS REPORT

REECo has no reportable Level 0 or Level 1 Milestones.

WASTE PACKAGE (1.2.2)

PROGRESS DURING REPORTING PERIOD:

WBS 1.2.2.2.4

Task: Fran Ridge - Phase II (Job Package 93-10A)

Continued rock excavation around test block. Installing chain link mesh on highwall and side walls of excavation. Completed installation of confinement beam and concrete cap. Removed material around the large block to a depth of three feet. Preparing site for installation of the wire saw.

DELIVERABLES:

None.

ISSUES AND CONCERNS:

None.

SITE (1.2.3)

PROGRESS DURING REPORTING PERIOD:

WBS 1.2.3.5

Task: USW UZ-14 Drilling (Job Package 92-17)

Cored to a depth of 2206.72 feet. Drilled to a total depth of 2223.58 feet. Monitored fluid level. Rigged down Failing Stratmaster drill rig, moved same to USW SD-9. Drilling operations complete.

Task: USW UZ-7 (Work Program 94-05)

Cleaned out hole to 169.60 feet. Hole falling in. Pipe stuck, worked same free. Pulled and laid down 2 7/8-inch tubing.

Task: USW SD-9 (Job Package 94-07)

Drilled with 13-inch hammer bit to 53.57 feet. Opened hole to 15 inches. Ran and cemented 9 5/8-inch surface casing to 50.15 feet. Currently coring with 6-inch core bit at 82.42 feet.

Task: USW SD-12 (Job Package 94-04)

Presently coring 4 3/8-inch hole at 769.45 feet with 12 1/4-inch ream hole at 760.69 feet.

Task: UE-25 UZN-25 (Work Program 94-04)

Pulled 6 3/8-inch casing to 10 feet. Set 2-foot Cal-Seal plug at surface. U.S. Geological Survey (USGS) ran logs. Rigged down and moved off location. Job complete.

Task: Maintenance & Operations

Continued to provide technical support, equipment checks, and repairs to the USGS Integrated Data Acquisition System (IDAS) Prototype System.

<u>Deliverable</u>	<u>Due Date</u>	<u>Expected Date</u>	<u>Completed Date</u>	<u>Comments</u>
Drilling of SD-12 Borehole				Operations ongoing.
Drilling of NRG-7/7A Borehole				Completed March 10, 1994.
Drilling of Ramp Boreholes NRG-8A, 8B, 8C				No activity at this time.
Drilling of Ramp Boreholes NRG-2C and NRG-2D, Phase I				Phase I completed February 10, 1994.
Drilling of SD-9 Borehole				Started drilling operation on May 5, 1994. Operations ongoing.
Support testing and completion on UZ-16 and UZ-14				Testing support ongoing on UZ-16. No testing activity on UZ-14 at this time. Drilling phase completed.
Support pump testing activities at the C-Hole Complex				Phase I completed January 21, 1994
Drilling of UZ-7A Borehole				No activity at this time.

DELIVERABLES:

None.

ISSUES AND CONCERNS:

None.

EXPLORATORY STUDIES (1.2.6)

PROGRESS DURING REPORTING PERIOD:

WBS 1.2.6.1

Task: Exploratory Studies Facility (ESF)

Continued administrative support for ESF activities to include planning, scheduling, and management.

Task: ESF North Portal Pad & Facilities (Job Package 92-20)

Dry Core Drilling in Test Alcove #1: Cleaned borehole and camera inspection of the lower right hole.

Trenches and Duct Bank: Encasement completed with exception of underground power center stub ups. Waiting for Architect/Engineer (A/E) approval of vendor submittals. Waiting for switchgear building prior to cable pulling activities.

Sanitary Sewer Line: Continued installing lateral connection and clean outs (at locations 21 and 22) for change house (approximately 40 feet of line). Began installing line between manholes 4 and 3 on southwest end of pad. Excavation completed for this section, installed approximately 30 feet of line. Continued backfilling trunk line between manholes 5 and 4. Completed installation of laterals to proposed building and backfilled. Excavated and installed the two 75-foot runs for Building 5009. Began accumulation information for sewer through grouting/cement pour.

Water line - J-13 to Booster: Backfilling valve box at J-13 and completed the water well tie-in.

Potable Water Line: Finished encasement work in critical corridor by tunnel boring machine (TBM) assembly pad. Completed backfill and compaction, and compaction testing of connection line from main feeder to the change house encasement. Installed 305 feet of line with its various fittings, and valves follows sub-surface waste water line.

Fire Water Line: Finished encasement work in critical corridor by TBM assembly pad. Performed backfill and compaction, and compaction testing of connection line from main feeder to the change house encasement (line mentioned above). Installed 305 feet of line with its various fittings, and valves follows sub-surface waste water line.

Switchgear Building: Modified elevation of rebar mats (lowered approximately 2 inches) to ensure proper coverage requirements. Poured anchor slab, installed rebar stirrups on 28-foot duct from manhole CD to raceway, and installed conduit and encased from manhole CD to raceway. Finished encasement of duct bank from manhole CZ to switchgear to stub up. Completed installing rebar for vertical walls and horizontal trench floor in the raceway. Continued tying steel for invert of cable raceway.

Task: Construction of C-Well Complex (Job Package 92-21)

C-Well Discharge Pipeline: Completed pipe repairs and performed pressure test successfully.

NRT-1 Trench, Slot & Trail: Supported RSN with water truck for testing.

Procurement Actions

Request for Proposal (RFP) No. 63-MM-94, Purchase Requisition (PR) No. 1-RK-01-4 for the construction of water storage tanks was canceled due to the single offeror who responded to the solicitation but refused to provide additional supporting documentation to our price analyst. Therefore, a determination as to fair and reasonable pricing could not be made. This initial solicitation was issued as a restricted small business set-aside as directed by Department of Energy Nevada Operations Office (DOE/NV) policy. Due to the lack of responses, the restriction was removed by the DOE/NV Contracting Officer, and the requirement is being resolicited unrestricted, large or small business.

RFP 83-BG-94 (PR 3-TMM-01-4) for a rotary drill rig closed at 4 p.m. on April 5, 1994. Three proposals were received. Questions resulting from the technical evaluation performed by the YMP Project Control and Drilling Departments and the A/E were provided to offerors to obtain clarifications. A specification change was received on May 24, 1994, and provided to offerors. A telefacsimile which revised the Technical and Cost Proposal was received on May 27, 1994. The package is in the final evaluation stage.

RFP 114-BG-94 (PR 27 JAW-01-4) for chlorine tracer injection system: After receiving all required changes to the specification from the A/E, an RFP was issued on April 8, 1994. On April 25, 1994, Amendment No. 1 was issued which extended the closing date indefinitely due to design changes. No change.

A proposal for mapping gantry with drills and other trailing gear was received from Construction & Tunneling Services, Inc. (CTS), on April 21, 1994. This equipment is to be used in conjunction with the TBM. A revision to the specification was received in the YMP Procurement Section on May 27, 1994, and was transmitted to CTS, manufacturer of the TBM, the same day. Before CTS could reprice any of their proposal, another revision to the specification was received in YMP Procurement Section on May 31, 1994. This edition of the specification was forwarded to CTS immediately.

Two purchase orders for survey equipment were awarded by Kiewit/PB during this period.

DELIVERABLES:

The 69KV power line to the ESF was completed May 16, 1994.

ISSUES AND CONCERNS:

None.

TEST FACILITIES (1.2.7)

PROGRESS DURING REPORTING PERIOD:

Task: Field Operations Support

Continued support services to participants and maintenance of YMP utilized facilities, utilities, equipment, and roads in Area 25.

Continued logistical and tour support for Department of Energy (DOE) Yucca Mountain Site Characterization Office (YMSCO) staff. Forty tours and one Open House were held during this period. Support included, but was not limited to, arrangements for buses, registration of guests, coordination of lunches/beverages, medical service, furniture, and mechanical service. Continued preparations for upcoming tours.

DELIVERABLES:

None.

ISSUES AND CONCERNS:

None.

PROJECT MANAGEMENT (1.2.9)

PROGRESS DURING REPORTING PERIOD:

WBS 1.2.9

Task: Technical Project Office Management/Project Control

Continued normal administrative level of effort support. Continued status and update of Planning and Control System (PACS); supported ESF construction and drilling activities; and completed cost estimates as required.

DELIVERABLES:

None.

ISSUES AND CONCERNS:

None.

QUALITY ASSURANCE (1.2.11)

PROGRESS DURING REPORTING PERIOD:

WBS 1.2.11

Task: Quality Assurance (QA)

DOE completed their Quality Assurance Program implementation audit (YMP-94-04) of REECo's documented QA program. The audit showed that REECo is effectively implementing the Office of Civilian Radioactive Waste Management's Quality Assurance Requirements and Description Document. No corrective actions were identified during the audit.

Conducted Audit No. REEC0-007-94 of the YMP Division Office. Activities evaluated included the performance of the 1993 Management Assessment and the Readiness Review for the TBM Start-up Operations. No deficiencies were identified.

DELIVERABLES:

None.

ISSUES AND CONCERNS:

None.

WBS 1.2.12

Task: Records Capture, RIDS, Controlled Documents

Continued the administration and management of records capture, RIDS, and distribution and maintenance of controlled documents.

DELIVERABLES:

None.

ISSUES AND CONCERNS:

None.

ENVIRONMENT, SAFETY & HEALTH (1.2.13)

PROGRESS DURING REPORTING PERIOD:

WBS 1.2.13

Task: Safety & Occupational Health

Provided medical, occupational safety, industrial hygiene, and fire protection support.

Occupational Safety personnel conducted eight safety surveillances, bringing the total to 50 safety surveillances. Five compliance follow-up inspections were conducted, bringing the total to 23 inspections. Nine safety findings were accomplished, bringing the total to 108 corrective action plans for the period. Conducted and completed one type "C" investigation during the month, bringing the total to 14. Performed one design review of Design Package 2C. Submitted one comment on proper posting of electrical vault confined spaces.

Full Industrial Hygiene services continue to be provided for the YMP. Daily work activities are evaluated and monitored for health hazard concerns.

Conducted ventilation surveys of two USGS laboratory hoods in the Hydrologic Research Facility, Building No. 4215, Area 25. Preliminary results were provided to D. Chapman and T. McCarthy, (SAIC) Safety and Health Compliance Department.

Measured air quality, noise, and dust levels during Kiewit/PB removal/cleanup operations of the main invert at CS 1+10, North Portal Starter Tunnel, using a hoehammer attachment onto Caterpillar C 225, NTS 73279, and similar operations at CS 1+50 using a jackhammer. Proper Personal Protective Equipment (PPE) was worn.

Measured air quality, noise, and dust levels during a confined space entry into the drums of two 8-yard International Harvester Paystar 5000 transit mix trucks, NTS 81703 and NTS 81705, for removing dry cement cake using a 25-pound hand chipper. This operation occurred at the Area 25 Batch Plant on H-Road. Proper PPE was worn, including double hearing protection.

DELIVERABLES:

None

ISSUES AND CONCERNS:

None.

SUPPORT SERVICES (1.2.15)

PROGRESS DURING REPORTING PERIOD:

WBS 1.2.15

Task: Administrative Support and Training

Continued to provide procurement, logistical, and information management administrative level of effort support; continued support services to various YMP participants.

Staffed the one-booth YMP Technical Information Display (TID) presented at the 48th Annual Quality Congress of American Society for Quality Control in Las Vegas, Nevada; staffed the YMP TID at the International High-Level Radioactive Waste Management Conference in Las Vegas, Nevada; participated in the Horizon Middle School Professionals and Youths Building a Commitment program; and continued participation in the JASON Project at Jack Dailey Elementary School's fifth grade class.

Acquired two 10-foot sections of pallet racks and two metal parts bins to be utilized by REECO Construction in the Reactor Maintenance Assembly & Disassembly (R-MAD) Facility to store mine rescue equipment; completed the coordination of all TBM parts shipments from Kent, Washington, for a total of 52 shipments. Provided tour support to DOE and continued to support SAIC and USGS with craft personnel.

Consolidated and submitted the final training input for REECO/YMP and Kiewit/PB to the TBM Operation Readiness Review Committee.

Task: Site Characterization Plan (SCP) Reference Library and Database

Continued distribution and database maintenance for the SCP and Progress Reports.

DELIVERABLES:

None.

ISSUES AND CONCERNS:

None.