



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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MEMORANDUM

DATE: May, 1994

TO: Robert Johnson, Section Leader
NLW & Quality Assurance Section

FROM: John W. Gilray, Sr. On-Site Licensing Representative

SUBJECT: YMP SITE REPORT

1. 90% Design Review for Design Package 2C-Topopah Springs North Ramp

The Office of Civilian Radioactive Waste Management (OCRWM) has scheduled the 90% design review for Design Package 2C-Topopah Springs North Ramp for May 16-20, 1994, at Las Vegas, NV. The design package 2C includes the North Ramp excavation and ground support design from the Tunnel Boring Machine (TBM) launch chamber (at the end of the starter tunnel) to the Topopah Springs level. Drawings and specifications will also include subsurface concrete and structural steel drawings required for conveyor, ventilation and utility systems to support TBM operations. OCRWM has submitted the Design Package 2C to the NRC staff for their review and preparation for the 90% Design Review.

2. ESF Activities

2a. Tunnel Boring Machine (TBM)

Work is underway assembling the TBM at the ESF North Portal area. The last TBM shipment is expected to arrive at the North Portal area the week of May 2, 1994. Complete assembly and required operational training is expected to be completed prior to the August 8, 1994, start date of the TBM in the North Portal. At present the Reynolds Electrical and Engineering Co, Inc. (REECo) has under contract 60 KIEWIT employees on-site assembling and preparing for operation of the TBM.

2b. On-Site QA Activities

The ORs continue to monitor ongoing site activities and review the associated procedural controls and documented work packages. Major ongoing site activities include:

- Hydrochemistry tests in Alcove #1 of the ESF starter tunnel.
- Consolidated sampling in the ESF starter tunnel.
- Geologic Mapping in the ESF starter tunnel.
- Large Block Engineered Barrier experiments.
- Radial Borehole Tests in Alcove #1 of the ESF starter tunnel.

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- Drilling, coring and logging at stations USW-UZ-14, USW-SD-12 and at USW NRG 7/7A.
- Borehole geophysical logging at drillholes NRG-2A,B,C,D, NRG 7/7A and at UZ-7.
- Hydrologic Research Investigations.
- Assembling of the TBM.

ORs will provide additional detailed information on the above activities to the NRC staff members upon request.

The ORs invited representatives from the Yucca Mountain Quality Assurance Division and the On-Site Field Test and Construction Coordination Office on one of our routine reviews of site activities which included the reviews of Study Plans, Job Packages, Test Planning Packages, documented procedural controls and data packages. This particular review included activities associated with the Large Block Testing program; the drilling, coring, reaming and logging of core samples at USW-SD-12 using drill rig LM-300, and the horizontal drilling, core sampling and testing program at the ESF North Ramp Starter Tunnel, Alcove #1. The ongoing work activities at these three work stations appeared to be carried out in an acceptable manner. However, at each station the ORs identified examples of QA deficiencies pertaining to poor housekeeping of procedural controls and the lack of referencing the appropriate logging procedures in Work Packages. Timely corrective measures were instituted to correct the above deficiencies with the exception of the issue pertaining to the lack of documented references of the logging procedures in the Work Packages. I am pursuing this issue with the DOE QA and technical staff members to determine their rationale and policy for not referencing applicable procedures in the TPP. In this regard I am reviewing the data packages to determine whether output data can support licensing needs without this documented traceability link to the logging procedures. The results of this effort will be discussed with appropriate NRC staff members. The DOE on-site QA office has decided to take measures to increase the frequency and depth of their QA surveillances at the various on-going site activities to gain greater assurance that the necessary procedural controls are properly being carried out and that the data packages are complete and acceptable.

2c. Review of NRT-1 Activities

I am continuing the review of work activities procedural controls and data packages associated with the excavation, scientific investigations and mapping of the 125 ft-long by 24 ft-wide by 33 ft-deep trench, NRT-1. The investigation of this trench, which contains soft rock and is in the near vicinity of the proposed path of the North Portal, is in support of the ESF tunnel design and utilization of the tunnel boring machine. At present I am investigating the DOE process for bringing together a complete history of the excavation, geologic investigations and mapping activities at NRT-1. In addition I intend to review the various records associated with the

NRT-1 for completeness and compliance with requirements. Results of this review will be appropriately reported to the NRC staff.

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2d. Acceptance of On-Site Work (ESF & Scientific Work)

DOE recently developed and issued a QA procedure for the review and DOE acceptance of completed ESF work and the applicable records. This procedure titled "Acceptance of Configuration Items " (YAP-6.1Q) has been submitted to the NRC staff (Bill Belke) for information. In addition, Acceptance Plans are being developed for specific items of ESF work and will be used in conjunction with YAP-6.1Q to review and accept the completed ESF work item. The first work package to receive a dry run review using the above two procedures is expected to take place sometime in June.

The ORs intend to observe this acceptance review. We will notify NRC staff of the exact time of this review and future reviews to enable staff members to determine the extent they want to participate in these reviews.

In regards to site scientific and drill hole activities there are 16 work packages awaiting review and close out. The review and close out of these packages is expected to start in June. The OR's will continue to monitor this activity closely and will keep the NRC staff appropriately informed of the first close out review and future reviews.

3. QA Classifications of Items and Activities

The OR office is reviewing OCWRM's process for determining the QA classifications of items and activities associated with the site characterization of the Yucca Mountain site. This process has been under development since 1990. My review will include the review of QA classification procedural controls and records. Results of this review will be appropriately reported to the NRC staff. I understand the QA classification subject is expected to be an agenda item at the next ESF Technical Meeting with NRC and DOE.

4. Observation of Audits

4a. OR Observation of the Civilian Radioactive Waste Management System Management and Operating Contractors (M&O) Audit of their Exploratory Studies Facility (ESF) Design Activities.

At the request of the NRC Staff I observed the M&O internal quality assurance (QA) audit (Audit No. 94NSA-01) at Las Vegas, Nevada, the week of February 21-15, 1994.

This audit was conducted by five M&O auditors and one M&O technical auditor experienced in design and design controls. Qualifications and experience of these six auditors were reviewed and were found to be acceptable, meeting DOE and NRC requirements.

The M&O objective of this internal QA audit was to assess the M&O design process for the ESF which included the assessment of the M&O organization, design controls, implementing procedures and corrective actions. My objectives were (a) to determine whether the audit was performed in such a manner as to provide confidence in the M&O audit process and (b) to determine whether M&O was properly implementing the requirements specified in their QA program.

My observation of this audit concentrated on those areas pertaining to the preparation, review, approval, controlled distribution and use of the Determination of Importance Evaluations, design calculations, analysis, drawings, and specifications associated with the ESF. The audit team identified eight Corrective Action Reports (CARs) which were not considered to be significant nor have an impact on the quality of the design packages. Overall, the audit team considered the areas audited to be effective and in compliance with the exception of the eight CARs.

I concluded that this M&O audit was in-depth, effective and demonstrated an improvement over past M&O audits. In addition I noted improvements in the M&O design process including the design organization understanding and use of QA and design procedural requirements.

4b. At the request of the NRC staff I will observe the Office of Civilian Radioactive Waste Management Quality Assurance (QA) Audit (#YMP-94-04) of REECo May 2-6, 1994. This audit will be performed by a team of nine auditors from the YMQAD and will evaluate the implementation of REECo QA Program relative to construction and QA activities at the Yucca Mountain Nevada Test Site.

There are no new issues that this office has identified that have not been brought to management's attention.

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