

TV/SURV OBS OF THE YMPO

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JUL 31 1990

Mr. Ralph Stein, Associate Director
for Systems Integration and Regulations
Office of Civilian Radioactive Waste Management
U. S. Department of Energy, RW 30
Washington, D.C. 20545

Dear Mr. Stein:

SUBJECT: SURVEILLANCE OBSERVATION OF THE YUCCA MOUNTAIN PROJECT
QUALITY ASSURANCE PROGRAM FOR STUDY PLANS

From June 6-8, 1990, the U.S. Nuclear Regulatory Commission (NRC) staff observed the U.S. Department of Energy (DOE)/Yucca Mountain Project Office (YMPO) Surveillance No. YMP-SR-90-031 of the Yucca Mountain Project (YMP) Quality Assurance (QA) program conducted at Las Vegas, Nevada. This letter transmits the NRC Surveillance Observation Report for the DOE/YMPO surveillance of the YMP QA program in the area of preparation and review of the study plans.

The NRC staff evaluated the DOE/YMPO QA surveillance to gain confidence that DOE and its contractors are effectively implementing the requirements of their QA program as it relates to study plans. The NRC staff based its evaluation of the surveillance process and the YMP QA program on direct observations of the surveillance team, discussions with the YMP staff and reviews of the pertinent surveillance information (e.g., surveillance check-list and the YMP QA documents) and other available pertinent information.

The DOE/YMPO limited the scope of this internal surveillance to procedural implementation, and did not assess the technical adequacy and qualification of any of the study plans reviewed during this surveillance. The NRC observers found the DOE/YMPO surveillance of the YMP QA program useful and effective. The surveillance team had an excellent knowledge of the requirements of the Nevada Nuclear Waste Storage Investigations Quality Assurance Plan (NNWSI/88-9) and the relevant QA procedures being implemented. Their checklist for this surveillance was well prepared and utilized in determining the status and effectiveness of QA program implementation under 10 CFR Part 50, Appendix B, Criterion 3.

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The NRC staff agrees with DOE/YMPO surveillance team's conclusion that the procedural implementation of the YMP QA program for the preparation, review, and approval of the YMP study plans is adequate.

If you have any questions concerning this report, please contact Mark Delligatti of my staff at FTS 492-0430 or (301) 492-0430.

Sincerely,

ORIGINAL SIGNED BY

John J. Linehan, Director
Repository Licensing and Quality
Assurance Project Directorate
Division of High-Level Waste Management
Office of Nuclear Material Safety
and Safeguards

Enclosure: As Stated

- cc: R. Loux, State of Nevada
- C. Gertz, DOE/NV
- S. Bradhurst, Nye County, NV
- M. Baughman, Lincoln County, NV
- D. Bechtel, Clark County, NV
- D. Weigel, GAO
- D. Shelor, DOE

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SURVEILLANCE OBSERVATION REPORT

1.0 INTRODUCTION

The United States Department of Energy (DOE)/Yucca Mountain Project Office (YMPO) is responsible for the Yucca Mountain Project (YMP) activities to study and evaluate the suitability of the Yucca Mountain site for developing and licensing of a geologic repository in the State of Nevada. These YMP activities include site characterization, scientific investigation, facility and equipment design, procurement, and construction, facility operation, performance confirmation, permanent closure, and decontamination and dismantling of surface facilities. All these activities are being conducted under a DOE/YMPO approved Quality Assurance (QA) program. The YMP QA program is based on the requirements of the Nevada Nuclear Waste Storage Investigations Quality Assurance Plan (NNWSI/88-9), Revision 4. All the YMP work is controlled through the NNWSI/88-9, Revision 4.

From June 6 through 8, 1990, DOE/YMPO conducted an internal surveillance (No. YMP-SR-90-031) of the study plan development, review and approval process at the YMP in Las Vegas, Nevada. The preparation, review and approval of all the study plans for the project is controlled through the DOE/YMPO approved YMP Administrative Procedure, AP-1.10 Q, "Preparation, Review, and Approval of SCP Study Plans", Revision 1. The surveillance was conducted in accordance with the YMP Quality Management Procedure, YMP-18-02, "Surveillance", Revision 1. The U.S. Nuclear Regulatory Commission (NRC) staff observed this surveillance. This Surveillance Observation Report documents the staff's assessment of the effectiveness of the DOE/YMPO surveillance and to a lesser extent, the adequacy and status of implementation of the YMP AP-1.10 Q.

2. PURPOSE

This DOE/YMPO internal surveillance evaluated the adequacy and status of procedural implementation of YMP AP-1.10 Q for a selected number of study plans that have gone through the review and approval process and a selected number of study plans that are currently being reviewed. The NRC staff's purpose in observing this surveillance was to gain confidence that the DOE and its contractors are properly implementing the requirements of QA program by assessing the effectiveness of the DOE/YMPO surveillance and determining the adequacy of the YMPO QA controls for preparation, review and approval of study plans at the YMP.

3. SCOPE

The preparation, review and approval of study plans are important activities to support the YMP site characterization activities. The DOE/YMPO surveillance team reviewed the YMP Monthly Study Plan Status for April, 1990, and selected a number of study plans that have gone through the YMPO review and approval processes for the surveillance team's review and evaluation of adequacy and status of procedural implementation of the YMP AP-1.10 Q. The DOE/YMPO surveillance team also reviewed and evaluated a number of study plans, that are at different phases of the development, review and/or approval processes, for compliance with the procedural requirements of YMP AP-1.10 Q. The scope of this surveillance did not include any review of the technical adequacy of the study plans. The technical merits of the YMPO reviewers' comments in the review process required by the YMP AP-1.10 Q, were also not evaluated under the scope of this surveillance.

4. SURVEILLANCE PARTICIPANTS

DOE/YMPO:

Martha J. Mitchell, SAIC, Team Lead

Steve R. Dana, SAIC, Team Member

NRC

Tilak R. Verma, Observer

John W. Gilray, Observer

5. SURVEILLANCE SUMMARY RESULTS

The DOE/YMPO surveillance team conducted a detailed examination and review of the YMPO records for the study plans that have gone through the DOE/YMPO review and approval process and for which the completed study plan packages have been forwarded to the Local Record Center (LRC). The selected study plans were checked for documented screening reviews, NRC/DOE Level of Detail Agreement (LODA, June 6-8, 1986) reviews and other reviews, such as, technical reviews, QA reviews and management reviews required by the YMP AP-1.10 Q. All available documentation in each study plan package was evaluated for compliance with the procedural requirements. Documentation of reviewers' comments and their resolution was checked for compliance with the applicable requirements of YMP AP-1.10 Q. The team interviewed several YMP personnel to assess their knowledge of the applicable procedure (YMP AP-1.10 Q). Adequacy of controls and status of implementation for this procedure were assessed and documented on the check-list for this surveillance.

The surveillance team identified several deficiencies in the procedure (YMP AP-1.10 Q, Revision 1) to provide adequate QA controls for preparation, review and approval of study plans. The team compared the requirements of this procedure with the DOE/Office of Civilian Radioactive Waste Management (OCRWM) Implementing Line Procedure (ILP) 22.3.1, Revision 1, "DOE/HQ Review of Study Plans" and found some of them in conflict with the latter. The team concluded that the procedure suffers from a lack of detail.

Although the implementation of the procedure is adequate, a fairly large number of minor, procedural weaknesses that relate to the implementation of YMP AP-1.10 Q were identified by the surveillance team. None of these weaknesses, if corrected in a timely manner, is serious enough to

affect the adequacy of QA controls or their procedural implementation. The surveillance team did not assess the effectiveness of implementation of the YMP AP-1.10 Q.

6. PERSONNEL CONTACTED

Martha Pendleton, SAIC
Forrest Peters, SAIC
Terry Grant, SAIC
Keith Schwartztrauber, SAIC
David Dobson, YMPO
Robert Constable, YMPO
James Blaylock, YMPO

7. NRC CONCLUSIONS

The NRC observers found the DOE/YMP surveillance of the YMP study plan preparation, review and approval processes under the YMP AP-1.10 Q useful and effective. The surveillance team was familiar with the requirements of the NNWSI/88-9 QA Plan and the applicable procedure (YMP AP-1.10 Q). Their check-list for this surveillance was well prepared and effectively utilized in determining the adequacy of QA controls under the YMP AP-1.10 Q and for assessing the status of completeness and procedural implementation of this procedure for the preparation, review and approval of study plans. The team was thorough and professional in interviewing the YMP technical and QA personnel and in conducting this surveillance.

The scope of this surveillance was limited to procedural implementation. No assessment of technical adequacy and qualification of any of the study plans was made during the surveillance. The team also did not evaluate the technical validity of any of the reviewers' comments on the study plans. The surveillance team identified some minor deficiencies in the YMP procedure for preparation, review and approval of study plans.

The NRC staff found the DOE/YMPO study plan review program adequate. The staff thought that the review suffers from a lack of detail in the implementing procedure and a lack of checking or in-process evaluation of the reviews. Although the review of the study plans required by the procedure had been performed, a fairly large number of minor, procedural problems were identified by the surveillance team. None of these problems, if corrected in a timely manner, is considered serious enough to affect the adequacy of QA controls or their procedural implementation. The NRC staff agrees with the DOE/YMPO surveillance team's recommendation that the YMPO review process for study plans would benefit from internal surveillances of the in-process review activities.