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MEMORANDUM	O: Aby Mohseni, Deputy Director	Deleted: ¶
	Licensing and Inspection Directorate Division of High-Level Waste Repository Safety Office of Nuclear Material Safety and Safeguards	
FROM:	Jack D. Parrott, Senior On-Site Licensing Representative <u>/RA/</u> Project Management Branch A Division of High-Level Waste Repository Safety Office of Nuclear Material Safety and Safeguards	Formatted: Font: Bold, Italic
	J. Vincent Everett, Senior Inspector <u>/RA/</u> Fuel Cycle and Decommissioning Branch Division of Nuclear Material Safety, Region IV	Formatted: Font: Bold, Italic
SUBJECT:	U.S. NUCLEAR REGULATORY COMMISSION ON-SITE LICENSING REPRESENTATIVES' REPORT NUMBER OR-07-03 ON THE YUCCA MONTAIN PROJECT, FOR JULY 1, 2007, THROUGH SEPTEMBER 30, 2007	
This memorandum Representatives' (September 30, 200	transmits the U.S. Nuclear Regulatory Commission (NRC) On-Site ORs') Quarterly Report number OR-07-03 for July 1, 2007, through 07.	
interest to NRC sta provide various do	Report highlights a number of Yucca Mountain Project activities of potential ff. The ORs continue to respond to requests from NRC Headquarters staff to cumentation and feedback related to technical Issues and their resolution. Ig period, the ORs continued to observe on-site activities at Yucca Mountain.	
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Memorandum to A.S. Mohseni, Deputy Directory, LID, from J. D. Parrott, and J.V. Everett, dated: <u>October 30, 2007</u>.

A. Kalt, Churchill County, NV L. Pearce, Churchill County, NV R. Massey, Churchill/Lander County, NV I. Navis, Clark County, NV E. von Tiesenhausen, Clark County, NV J. Gervers, Clark County, NV E. Mueller, Esmeralda County, NV R. Damele, Eureka County, NV A. Johnson, Eureka County, NV S. Cash, Inyo County, CA R. Cervantes, Inyo County, CA R. Juliff, Invo County, CA R. Holland, Inyo County, CA M. Gaffney, Inyo County, CA C. Chapin, Lander County, NV J. Brandt, Lander County, NV W. Poulsen, Lincoln County, NV M. Baughman, Lincoln County, NV C. Jorden, Lincoln County, NV A. Robinson, Lincoln County, NV T. Rowe, Lincoln County, NV C. Simkins, Lincoln County, NV L. Mathias, Mineral County, NV G. Hollis, Nye County, NV J. Eastley, Nye County, NV D. Lacy, Nye County, NV M. Murphy, Nye County, NV R. Gamble, Nye County, NV B. Eldridge, White Pine County, NV R. Makley, White Pine County, NV S. Beverly, NV Congressional Delegation T. Story, NV Congressional Delegation R. Herbert, NV Congressional Delegation S. Raborn, NV Congressional Delegation B. Allmon, NV Congressional Delegation C. Guedry, NV Congressional Delegation K. Kirkeby, NV Congressional Delegation S. Olsen, NV Congressional Delegation R. Loux, State of NV S. Frishman, State of NV S. Lynch, State of NV

B. J. Garrick, NWTRB E. Sproat, III, DOE/OCRWM/Washington, D.C. C. Kouts, DOE/OCRWM/Washington, D.C. G. Runkle, DOE/OCRWM/Washington, D.C. S. Gomberg, DOE/OCRWM/Washington, D.C. L. Desell, DOE/OCRWM/Washington, D.C. J. Williams, DOE/OCRWM/Washington, D.C. V. Trebules, DOE/OCRWM/Washington, D.C. R. Warther, DOE/OCRWM/Washington, D.C. J. Hollrith, DOE/OCRWM, Las Vegas, NV S. A. Wade, DOE/OCRWM, Las Vegas, NV K. W. Powers, DOE/OCRWM, Las Vegas, NV A. Benson, DOE/OCRWM, Las Vegas, NV M. Williams, DOE/OCRWM, Las Vegas, NV R. Dyer, DOE/OCRWM, Las Vegas, NV A. Gil, DOE/OCRWM, Las Vegas, NV W. Boyle, DOE/OCRWM, Las Vegas, NV L. Newman, OQA/DOE/OCRWM, Las Vegas, NV M. Ulshafer, DOE/OCRWM, Las Vegas, NV P. Harrington, DOE/OCRWM, Las Vegas, NV C. Hanlon, DOE/OCRWM, Las Vegas, NV N. Hunemuller, DOE/OCRWM, Las Vegas, NV M. Urie, DOE/OCRWM, Las Vegas, NV G. Hellstrom, DOE/OCRWM, Las Vegas, NV M. Kavchak, DOE/OCRWM, Las Vegas, NV T. Feigenbaum, BSC/SAIC, Las Vegas, NV T, McKinney, BSC/BSC, Las Vegas, NV M. Carmichael, BSC/SAIC, Las Vegas, NV S. Cereghino, BSC/SAIC, Las Vegas, NV D. Beckman, BSC/B&A, Las Vegas, NV W. Hutchins, BSC/B&A, Las Vegas, NV P. Rail, BSC, Las Vegas, NV J. Bess, BSC/SAIC, Las Vegas, NV J. Saldarini, BSC/BSC, Las Vegas, NV C. Sorensen, BSC/BSC, Las Vegas, NV J. T. Schmitt, BSC/BSC, Las Vegas, NV D. Merritt, BSC/BSC, Las Vegas, NV R. McCullum, NEI S. Kraft, NEI R. Anderson, NEI J. Kessler, EPRI

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- T. Kingham, GAO
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- K. J. Skipper, USGS
- D. Duncan, USGS
- J. Treichel, Nuclear Waste Task Force
- P. Johnson, Citizen Alert
- P. Lister, Shundahiai Network
- C. Marden, BNL, Inc.
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- S. Orrell, LL/SNL LV, NV
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- J. Donnell, MTS
- L. Lehman, T-REG, Inc.
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- W. Briggs, Ross, Dixon & Bell
- J. Egan, ESQ., Egan, Fitzpatrick, Malsch & Cynkar
- B. Gattoni, Burns & Roe
- E. Hiruo, Platts Nuclear Publications
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- G. Hudlow, Public Citizen
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- P. Thompson, Duckwater Shoshone Tribe
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- D. Buckner, Ely Shoshone Tribe
- D. Eddy, Jr., Colorado River Indian Tribe
- D. Allman, OCRWM/OLM & Correspondence

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U.S. NUCLEAR REGULATORY COMMISSION

ON-SITE LICENSING REPRESENTATIVES' REPORT

NUMBER OR-07-03

FOR JULY 1, 2007, THROUGH SEPTEMBER 30, 2007

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ACRONYMS AND ABBREVIATIONS

<u>Acronym</u>	Meaning:
ADAMS	Agency-wide Document Access and Management System
AP	Administrative Procedures
BSC	Bechtel SAIC Company
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CR	Condition Report
DOE	U.S. Department of Energy
ESF	Exploratory Studies Facility
KTI	Key Technical Issue
LA	License Application
NRC	U.S. Nuclear Regulatory Commission
OCRWM	Office of Civilian Radioactive Waste Management
OQA	Office of Quality Assurance
OR	On-Site Representative
PA	Performance Assessment
QA	Quality Assurance
QARD	Quality Assurance Requirements and Description

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EXECUTIVE SUMMARY

SITE ACTIVITIES AND DATA ACQUISITION

The Yucca Mountain Project (Project) continued to conduct a two-phase drilling program to obtain data on the geotechnical and seismic properties of the area beneath planned waste-handling facilities. At the end of this reporting period, the Project had completed all of the Phase I boreholes. However, Phase II of the drilling program was stopped in response to a U.S. District Court's ruling upholding the Nevada State Engineer's order for the U.S. Department of Energy (DOE) to stop using State groundwater to support the Phase II drilling.

DOE conducted a scheduled quarterly underground entry during this reporting period. A U.S. Nuclear Regulatory Commission (NRC) On-Site Representative (OR) and an NRC staff member from NRC Headquarters participated in this event. NRC conducted activities during this entry to evaluate the locations for a potential tunnel degradation (rock-fall) study.

QUALITY ASSURANCE AND ENGINEERING

On June 13, 2007, DOE issued its Quarterly Trending Evaluation Report for the 1st/2nd Quarter, 2007, to comply with Quality Assurance Requirements and Description (QARD) Section 16.2.6. This report contained an incomplete listing of trends and incorporated a concept for reclassifying trends inconsistent with the QARD. DOE omitted three trends identified in the previous Quarterly Trend Evaluation Report from the 1st/2nd Quarter 2007 report. DOE corrected the omission in the 3rd Quarter 2007 Trending Evaluation Report provided information, related to reclassifying trends, that allowed emerging trends, which were later identified as meeting the criteria as an adverse trend, to remain classified as an emerging trend. This concept would underestimate the number of adverse trends and was inconsistent with QARD Section 16.2.6. DOE incorporated this same concept into the Trend Working Group Charter. DOE clarified the wording in the 3rd Quarter 2007 Trending Evaluation Report, and in the Working Group Charter, to ensure a consistent interpretation with the QARD.

DOE closed three open items during this quarter--Open Items Audit Observation Inquiry (AOI)-Office of Civilian Radioactive Waste Management (OCRWM)-Office of Quality Assurance (OQA)-05-20-01 and AOI-OCRWM-OQA-05-20-2, related to engineering calculations and analysis being labeled as "preliminary," to support the license application—and OR Open Item 05-01, related to deficiencies that had been identified in Condition Report 3235, concerning the corrective action program process. LICENSING REPRESENTATIVES' TRACKING REPORT FOR OPEN ITEMS¶ FOLLOWED IN OR REPORT¶ Table 1¶ Enclosure 2¶ Inserted: U.S. NRC ON-SITE LICENSING REPRESENTATIVES' TRACKING REPORT FOR OPEN ITEMS¶ FOLLOWED IN OR REPORT¶ Table 1¶ Enclosure 2¶ Formatted: Font: 12 pt, Bold Formatted: Font: 10 pt

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INTRODUCTION

The primary purpose of the On-Site Representatives' (ORs') quarterly report is to provide NRC managers, staff, and contractors information on DOE's activities related to: (1) repository design; (2) performance assessment (PA); (3) performance confirmation; and (4) environmental studies. The primary focus of this OR report is on DOE's programs for: (1) subsurface and surface-based testing; (2) PA; (3) data management systems; (4) environmental studies; and (5) quality assurance (QA). Relevant information includes new technical data, DOE's plans and schedules, and the status of activities to support preparation of the License Application (LA). The ORs also take part in activities associated with resolving technical issues.

This report covers the period of July 1, 2007, through September 30, 2007.

OBJECTIVES

The ORs' missions are to act as points-of-contacts of prompt information exchange between NRC and DOE, and to identify preliminary concerns with site investigations and licensing issues. The ORs carry out these roles by gathering and evaluating information, identifying concerns, and bringing significant issues to NRC management's attention. The ORs also focus on issues such as design controls, data management systems, and PA and technical issue resolution. The ORs also identify areas, whether in site studies, activities, or procedures, that may be of interest or concern to the NRC staff.

1. SITE ACTIVITES AND DATA ACQUISITION

On-Site Drilling Activities

During this reporting period, the Project continued to conduct a two-phase drilling program to obtain data on the geotechnical and seismic properties of the area beneath planned waste-handling facilities. This is being done to provide confirmatory data for the Post-Closure Probabilistic Seismic-Hazard Analysis (PSHA), engineering design for surface building foundations, and ground motion inputs (i.e., seismic-hazard-curve development) for building design calculations. At the end of this reporting period, the Project had completed all of the 15 Phase I boreholes. Phase II of this drilling program, which started in late March 2007, was stopped during this reporting period in response to a U.S. District Court's ruling upholding the Nevada State Engineer's order for DOE to stop using State groundwater to support the Phase II drilling operations. Approximately 25 of the planned 45 Phase II boreholes were completed at the time of the implementation of the State's order.

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1.2 Underground Entry

As of April 1, 2007, the Project curtailed underground activities, and halted all routine access to that part of the Exploratory Studies Facility (ESF) beyond the Bow Ridge Fault (just past Alcove 2). The curtailment plan included provisions for scheduled quarterly entries to the underground. The Project conducted the second of these entries on September 20, 2007. An NRC OR and an NRC staff member from NRC Headquarters participated in this event. NRC activities included taking pictures at three 10-meter-(33 foot)_long sections in the ESF, to evaluate the locations for a potential tunnel degradation (rock fall) study. The DOE entry activities included the maintenance or upgrading of the devices used for data collection from the remaining instruments monitoring conditions in Alcove 5 (the heated-drift test), and at Niche 3, in the ESF. The entry also included traversing the entire ESF by train. The next quarterly entry is tentatively scheduled for January 2008.

2. OUTREACH ACTIVITIES

No outreach activities were conducted by the ORs during this reporting period.

3. QA AND ENGINEERING

3.1 DOE Trending Evaluation Report for 1st/2nd Quarter Fiscal Year 2007

DOE issued a combined Trending Evaluation Report on June 13, 2007, for the 1st and 2nd quarters of fiscal year 2007 (FY07). The Trending Evaluation Report provided information on trends that were ongoing, as well as new trends identified during the reporting period. The Trending Evaluation Report was issued to comply with the QARD, Section 16.2.6.C, which requires periodic trending of issues, to promptly identify adverse trends and help identify root causes. Administrative Procedure (AP) -16.7Q, "OCRWM Trend Program," established DOE's process for identifying and evaluating trends to comply with QARD Section 16.2.6.C. DOE issued this procedure on April 10, 2007, which replaced Procedure LP-16.3Q-OCRWM "Trend Evaluation and Reporting." In addition, Bechtel SAIC Company (BSC) cancelled Procedure QA-PRO-1002, which it had formally used for issuing trend reports, and now performs trending using Procedure AP-16.7Q.

During the six-month period covered by the Trending Evaluation Report, changes in the trending program have included: (1) establishing a centralized trending process for the Project under a single procedure (Procedure AP-16.7Q); (2) revamping the event codes used for trending; (3) retrofitting the condition reports (CRs) issued since FY 2007 to the new event codes; and (4) implementing a standardized and reorganized Trending Evaluation Report.

Trending Evaluation Reports are normally issued quarterly. However, the current version of Procedure AP-17.6Q, and the procedure that was in effect at the end of the 1st Quarter FY07 (Procedure QA-PRO-1002), combined two quarters into a single trend report. The ORs conducted a review of the 1st/2nd Quarter FY07 Trending Evaluation Report and identified two issues, concerning the classification of trends, and the "carry-over" of trends from the previous Trending Evaluation Report.

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The first issue concerned compliance with QARD Section 16.2.6, which required criteria to be established for determining adverse guality trends and for trending evaluations to be performed such that adverse quality trends are promptly identified. The 1st/2nd Quarter FY07 Trending Evaluation Report discussed the process for reclassifying trends between adverse, emerging, and monitored trends. If monitored trends were determined to be emerging or adverse trends they would be reclassified. However, a trend initially identified as an emerging trend, and later determined to be an adverse trend, remained an emerging trend in the trending report. Not reclassifying emerging trends as adverse trends would result in underreporting the number of adverse trends found on the Project and would be inconsistent with the QARD requirement related to identifying adverse trends. This same philosophy concerning reclassifying trends was included in Section 2.4.D of the Trend Working Group Charter. After becoming aware of this issue DOE deleted the statement in the 3rd Quarter FY07 Trending Evaluation Report, issued August 2007. DOE also issued a revised Trend Working Group Charter, on September 19, 2004, to correct the wording to be consistent with the QARD requirements to identify adverse trends.

The issue concerning the carry-over of trends from the previous quarterly trending report related to three trends that were identified in the 4th Quarter FY06 Trending Evaluation Report, but were not discussed in the 1st/2nd Quarter FY07 Trending Evaluation Report. These were: (1) CR 6334/7627, related to infiltration issues; (2) CR 8481, related to unauthorized commitments; and (3) CR 7267, related to use of cancelled/superseded documents. The ORs reviewed the 3rd Quarter FY07 Trending Evaluation Report, issued August 2007, and found that all three missing trends were included.

3.2 Review of OR Open Items

OR-Open Item AOI-OCRWM-OQA-05-20-01 and AOI-OCRWM-OQA-05-20-02: NRC Audit Observation Report OAR-05-01, NRC Agency-wide Document Access and Management System (NRC ADAMS Document ML050490378), dated February 28, 2005, identified two Audit Observation Inquiries (AOIs) related to an audit DOE conducted of work being performed on the Preclosure Safety Analysis (PCSA). These two issues were discussed in the NRC ORs' Report (NRC ADAMS Document ML052150315), dated August 10, 2005, Section 3.5, and related to the possibility that calculations and analysis labeled as "preliminary" could be used by DOE to support the LA. The first issue (AOI-OCRWM-OQA-05-20-01) concerned the need to establish procedural controls to ensure that engineering calculations would be sufficiently complete to support documentation provided in the LA. The second issue (AOI-OCRWM-OQA-05-20-02) related to compliance with 10 Code of Federal Regulations (10CFR) 63.21, which requires DOE to submit an LA, for NRC review, that is as complete as possible, in light of the information that is reasonably available at the time of docketing. NRC's concern was that the use of preliminary calculations to support the LA, as opposed to using final calculations, may not fully comply with 10 CFR 63.21, because preliminary calculations may be unverified and could undergo extensive change after submittal to NRC for review. This would bring into question the NRC's conclusions regarding the adequacy of the LA.

DOE responded to NRC on May 20, 2005, by letter (<u>NRC_ADAMS</u> Document ML051440387), concerning the two AOIs and proposed resolution of the issues, by identifying a third category, entitled "committed," for calculations and analysis

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documents. This category would establish calculations or analysis sufficiently developed to support documentation provided in the LA. DOE identified for revision Procedure AP-3.12Q, "Design Calculations and Analysis," and Procedure AP-3.13Q-BSC, "Design Control," to clarify when a calculation or analysis was sufficiently mature to support a specific deliverable, such as the LA. These two procedures were subsequently superseded by Procedure EG-PRO-3DP-G04B-00037 "Calculations and Analysis," Revision 9, and Procedure EG-PRO-3DP-G03B-00001, "Design Process," Revision 4. Both procedures clarified the issue related to the status of design documents. Procedure EG-PRO-3DP-G04B-00037, Section 2.3 "Definitions," incorporated the concept of "committed" as a designation for calculations/analysis that DOE considers sufficiently complete to support the LA. The procedure defined a committed calculation or analysis as one that may form the basis for the issuance of drawings or specifications for construction or operation of a system or facility, or for use in regulatory required safety analysis, or for procurement or fabrication. Changing a calculation or analysis from preliminary to committed required a determination, by the Discipline Engineering Manager, that the results were unlikely to change, or the degree of impact of any change would be minimal. Procedure EG-PRO-3DP-G03B-00001, Section 3.2.1, "BSC YMP Engineering Design Process," required that design deliverables could not be designated as "Issued for Use," unless the supporting calculations were at least at the committed stage.

Based on the review of the revisions made to the two affected procedures, the two open items discussed above are closed.

OR Open Item OR-OI-05-01: NRC ORs' Report Number OR 05-02 (ADAMS Document ML051860371), dated July 12, 2005, documented an NRC review of CR 3235, and the associated root-cause analysis. Based on this review, as discussed in Section 3.3 of the NRC report, several deficiencies were identified and documented as OR Open Item 05-01.

CR 3235 identified deficiencies in the Project's Corrective Action Program (CAP) process, including: (1) examples of ineffective corrective actions; (2) inadequate extent of condition assessments; (3) inappropriate reductions in the significance determinations on CRs; and (4) the failure to recognize and correct adverse trends. CR 3235 also noted a number of previously documented deficiencies, involving inadequate development and checking of technical products, that indicated ineffective corrective actions and failure to preclude recurrence.

The ORs' review of CR 3235 determined that the Project's basis for limiting the extent of the root-cause analysis and excluding technical-quality considerations (i.e., calculation errors in issued documents), from the scope of the root-cause, was not supported by objective evidence. The ORs also identified a deficiency in the root-cause analysis extent of condition, and the failure to evaluate the conditions identified in a parallel review of technical products performed by the engineering products review team documented on CR 4159 for a stop-work condition.

During this reporting period, the ORs reviewed the current status of the issues identified in OR Open Item 05-01. As a result of this review, the ORs determined that although corrective actions had been implemented to address the discrete issues associated with this open item, including: (1) revision/replacement of the engineering design procedures; (2) improvements in technical product checking; and (3) enhancements in the stop-work

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evaluation process, the overall ineffectiveness of the CAP system, initially identified in CR 3235, persisted, as indicated in the root-cause analysis for CR 9774, "Ineffective Corrective Action Program," dated March 20, 2007. Specifically, as a result of DOE's Office of Quality Assurance (OQA) audit of "Assessment Activities, Corrective Actions and Trending Programs," OQA determined that the CAP process was "ineffective" and the root-cause analysis team considered corrective action program performance to be a chronic problem."

Based on the ORs' review of DOE's investigation into the issues associated with OR Open Item 05-01, it was determined that the failure to adequately address the multiple problems in the CAP, originally identified in CR 3235, represented a significant missed opportunity to improve the CAP. However, the recent corrective actions, associated with CR 9774 regarding CAP inadequacies, which focused on ineffective management behaviors -- as well as the actions described in the common causes identified in CR 10004 (self-assessment program ineffectiveness); 10141 (QA program inadequacies); and 10556, address the conditions originally identified in CR 3235. The ORs also noted that increased management attention to the problem identification and resolution program, has resulted in substantive improvements in DOE's root-cause analysis process, which has been restructured to include: (1) specific timeliness expectations; (2) DOE line-management responsibility; (3) nuclear industry representation on the team; and (4) participation by recognized root-cause analysis experts.

Accordingly, OR Open Item 05-01 is closed.

3.3 Observation of the Processing of Issues Identified During a QA Audit

On June 4-18, 2007, NRC staff, including an OR, and staff from the Center for Nuclear Waste Regulatory Analyses (CNWRA), observed the DOE, OQA, audit OQA-SNL-07-06, in Albuquerque, New Mexico, and Las Vegas, Nevada. The DOE audit team evaluated the infiltration model developed by the OCRWM Lead Laboratory (Lead Lab) organization. DOE issued their audit report to the Lead Lab Program Director by letter dated August 15, 2007.

The primary objective of the DOE OQA audit, as stated in the plan, was to evaluate MDL-NBS-HS-000023, "Simulation of Net Infiltration for Present-Day and Future Climates" (Infiltration Model Report) relative to defendability [defensibility] in the LA process. In addition, an overall assessment of the technical adequacy, product quality, and implementation effectiveness of the QARD requirements for the Infiltration Model Report was conducted. The objective of the NRC observation was to assess whether the DOE audit team effectively met the objectives of the audit.

DOE's audit plan indicated that the audit team would issue CRs in accordance with AP 16.1Q, "Condition Reporting and Resolution," Revision 10, on conditions identified during the audit. On receipt of the DOE audit report, the OR noted that the eight technical issues, identified by the DOE technical specialists, were combined into a single CR, and classified as Level D Recommendations.

However, the significance of these technical issues relative to the acceptance criteria identified by the DOE technical specialists in the audit plan, the potential impact of these issues on the quality of the document, and the inability to trend these issues individually

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in the CAP or track them in other programs, demonstrate a need for these issued to be identified as individual CRs.

In addition, two of the technical issues (Technical Recommendations 3 and 5) indicate that non-conservative information was potentially used in the model. When evaluating these technical issues against AP-16.1Q, Attachment 4, "Significance Determination Definitions," and using the definitions for "technical information," it appears that these issues should be designated as at least Level "C" CRs. These two issues indicate that the precipitation levels during future climates and the soil-depth assumptions in Soil Depth Classification 4, may be non-conservatively represented in the Infiltration Model Report. Another technical issue (Technical Recommendation 4) states that the qualification status of the pedotransfer method used to collect data could not be determined. Since the indeterminate state of the data associated with this method brings into question the qualification of data related to an important aspect of the Infiltration Model Report, this issue should be classified, as a minimum, as a "minor adverse condition," until it is resolved. This would be a Level C condition as defined in Attachment A to Procedure AP-16.1Q.

3.4 Observation of QA Surveillances Conducted on Drilling Operations

On July 31, 2007, an OR observed OQA surveillance OQA-SI-07-032 and BSC QA surveillance BQA-SI-07-057, both regarding activities being conducted at the Sample Management Facility, in support of the core drilling operations (see Section 1.1 above). The surveillances were conducted against the requirements in procedure PA-PRO-0805, "Sample Management Facility Monitoring and Documentation of Drilling Activities and Depth Control." Based on the results of the surveillances, the OR determined that these oversight activities were effective.

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4. GENERAL ACTIVITIES

_No general activities were conducted during this reporting period.

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OPEN ITEMS <u>NUMBER</u> (For Tracking Only)	BRIEF DESCRIPTION OF OPEN ITEMS	OPEN ITEM OR REPORT NO.:	DATE OPEN CLOSEC
<u>AOI-OCRWM-OQA-05-20-</u> <u>02</u>	Revise procedure AP-3.13Q to reflect 10CFR63.21 requirements related to completeness of information necessary for LA review.	<u>OR-05-03</u>	OR Report No. O October 30, 2
AOI-OCRWM-OQA-05-20- 01	Procedural controls for "preliminary" classification of Engineering calculations will be revised to clearly define the designation of completed calculations suitable to support the requisite safety analysis.	<u>OR-05-03</u>	OR Report No. O October 30. 2
AOI-YMSCO-ARC-02-12- 01	Identifies the need for DOE OQA to ensure that procedure development and review process include a documented evaluation to verify compliance with the requirements of the YMP's QARD.	<u>OR-03-01</u>	OR Report No: O August 15, 2
<u>OR Open Item 07-01</u>	Failure to take prompt corrective actions related to documenting CAQs in the CAP system and initiating a RCA in response to QA program inadequacies identified in Level A, CR1041.	<u>OR-07-01</u>	-

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<u>OR Open Item 06-10</u>	BSC had not implemented effective requirements management system for the QMD sections that were reviewed during an audit, indicating inadeguate corrective actions for previous conditions identified in CRs - signify emerging adverse trends.	<u>OR-06-04</u>	-
OR Open Item 06-09	Based on OR review of the RCA for CR7395. it was determined that the RCA for CR7395 does to support the stated conclusions nor does it adequately address the extent of the condition and impact.	<u>OR-06-03</u>	-
OR Open Item 06-08	The Project has failed to maintain adequate procedural controls related to the assignment of event codes to condition reports as required by the QARD, Section 16.2.6a	<u>OR-06-03</u>	<u>OR Report No. O</u> April 30. 20
OR Open Item 06-07	Failure to process clarification related to the content and completeness of a CR record package in accordance with requirements of LP2.2Q, is identified as a deficiency. Clarification in response does not comply with the requirement.	<u>OR-06-02</u>	<u>OR Report No. O</u> July 30, 20
OR Open Item 06-06	Establish a relationship between actions to address deficiencies in requirements management processes and changes to the Engineering Design organizations.	<u>OR-06-02</u>	OR Report No: O September 26,
OR Open Item 06-05	Despite the existence of numerous CRs related to requirements management. BSC did no effectively describe the planned and completed CA that would resolve the deficiencies currently being overseen by DOE's IRPT.	<u>OR-06-02</u>	OR Report No: O September 26,

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OR Open Item 06-04	Based on Audit Observation of Software Control (OQA-BSC-06-10), requesting a basis and justification for the continued use of the output from software on the baseline that has not undergone IV&V remediation.	<u>OR-06-02</u>	-
OR Open Item 06-03	Based on Audit Observation of Software Control (OQA-BSC-06-10), requesting a description of DOE's remediation processes related to the approximately 35 legacy codes.	<u>OR-06-02</u>	-
<u>OR Open Item 06-02</u>	Requirements Flow-Down and Procedure Adequacy and Audit Observation: Involved the inconsistent use of quality- affecting document designators that indicated inadequate corrective actions related to similar conditions documented in CR3448.	<u>OR-06-01</u>	-
<u>OR Open Item 06-01</u>	Requirements Flow-Down and Procedural Adequacy Audit Observation: Concerned discrepancy in the definition of the term "requirement" in a BSC desktop instruction, which was inconsistent with the requirements for design input control defined in QARD Section 3.2.1.	<u>OR-06-01</u>	<u>OR Report No: O</u> January 31, 2
OR Open Item 05-02	Pending Project response to the discovery of potential falsification of QA records, completion of second and third initiatives described in the work plan.	<u>OR-05-03</u>	<u>OR Report No. O</u> April 30, 20

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<u>OR Open Item 05-01</u>	Inconsistencies in the root cause statements developed by the root cause analysis team, specifically the root cause related to traceability and transparency issues. Pending resolution of the apparent discrepancies in the root cause analysis for CR3235 identified in this Open Item.	<u>OR-05-02</u>	<u>OR Report No. 1</u> 03October 30,
OR Open Item 04-01	A concern regarding the safety analysis of the ground support system in the ESF.	<u>OR-04-01</u>	OR Report No: O October 27, 2
OR Open Item 03-06	Based on the review of CR756, twelve quality-affecting procedures were approved without meeting the applicable QARD requirements.	<u>OR-03-05</u>	OR Report No: O March 4, 20
OR Open Item 03-05	The continued use of unqualified software in quality affecting technical products appears to be in conflict with the governing requirements of the implementing procedures and the QARD.	<u>OR-03-04</u>	<u>OR Report No: O</u> January 31, <u>2</u>
OR Open Item 03-04	With a tentative date of mid-June, to evaluate CAR BSC(B)03-©-107. the RCD has not acted on this CAR in a timely manner and it has remained opened for 4 months without evaluation.	<u>OR-03-03</u>	<u>OR Report No: O</u> January 12, <u>2</u>
<u>OR Open Item 03-03</u>	An evaluation in DOE's progress in implementing corrective actions associated with CAR BSC(B)©-01-C-001, concerning model validation, the OR reviewed TAPS (approx. 43 models). Based on the results, it could not be established if the evaluation criteria will result in the development of models with adequate confidence for the LA.	<u>OR-03-02</u>	<u>OR Report No: O</u> July 12, 20

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<u>OR Open Item 03-02</u>	During a review of the MII confirmation packages, it was identified that the action statement execution task descriptions and completion schedules for many of the reviewed pkgs had been modified without appropriate justification. Therefore, pending the resolution of this apparent deviation from a commitment to administer the MII in accordance with the requirements of AP-5.1Q, this issue is identified as this OR Open item.	<u>OR-03-02</u>	<u>OR Report No: O</u> July 8, 200
<u>OR Open Item 03-01</u>	This Open Item is based on issues on separate DRs: (1) the effective resolution of concerns related to inadequate personnel training: (2) the failure to establish an effective transition plan; and (3) the evaluation of the SCWE issues.	<u>OR-03-01</u>	OR Report No: O October 20, 2
OR Open Item 02-13	The current status of corrective and preventive actions associated with CAR No.; BSC-02-C-01 revealed that not all corrective actions stated had been completed.	<u>OR-02-05</u>	OR Report No: O January 12, 2
<u>OR Open Item 02-12</u>	Contrary to requirements of the QARD Supplement III 2.4.C, AP-SIII.2Q inappropriately allows for the use of unqualified data. BSC QA procedure change control program failed to identify this issue.	<u>OR-02-05</u>	OR Report No: O March 4, 20
OR Open Item 02-11	Based on surveillance not identifying specific problems with software functionality for codes tested 7, including NUET, did not pass ITP and/or VTP surveillance.	<u>OR-02-05</u>	<u>OR Report No: O</u> February 16, :

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<u>OR Open Item 02-10</u>	Pending appropriate evaluation and documentation of the design control attributes associated with requirements of 10CFR63.44 and 10CFR Part 21.	<u>OR-02-04</u>	-
OR Open Item 02-09	Pending revision of engineering procedures to include appropriate design verification considerations.	<u>OR-02-04</u>	OR Report No: O February 18, :
OR Open Item 02-08	The required performance of annual audits justification for delaying a scheduled audit of YMSCO for 3 months, with an additional extension, does not appear to be adequately supported. Deviation from requirement of sub-section 18.2.1E of the QARD.	<u>OR-02-04</u>	OR Report No: O January 23, 2
<u>OR Open Item 02-07</u>	Model Validation Impact Assessment addressed the effect of inappropriately validated models on TSPA-SR. Many cases of impact assessments used TSPA- SR results to evaluate the local impacts. It's unclear how this practice evaluated the cumulation impact of all the models in question.	<u>OR-02-01</u>	<u>OR Report No: O</u> February 18, :
<u>OR Open Item 02-06</u>	Unqualified Data Impact Assessment - NRC staff identified unqualified data that could be replaced with qualified data for the performance assessment. For the risk- significant components, an evaluation of unqualified data replaced with qualified data would help determine if efforts should be undertaken to qualify the removed data.	<u>OR-02-01</u>	OR Report No: O July 8, 20(

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<u>OR Open Item 02-05</u>	Provisions are in place that allow for model validation to continue past issuance of the documentation. The models used in the performance assessment should have adequate support for their representation at the time the performance assessment documentation is issued.	<u>OR-02-01</u>	<u>OR Report No: O</u> <u>February 18, :</u>	Deleted: U.S. NRC ON-SITE LICENSING REPRESENTATIVES' TRACKING REPORT FOR OPEN ITEMS¶ FOLLOWED IN OR REPORT¶ Table 1¶ Enclosure 2¶ Inserted: U.S. NRC ON-SITE LICENSING REPRESENTATIVES' TRACKING REPORT FOR OPEN
OR Open Item 02-04	A number of criteria have been developed related to various forms of review. If a review is relied on for model validation, it should be directed at validating the model and it should encompass the full body of information to the extent practical.	<u>OR-02-01</u>	<u>OR Report No: O</u> <u>April 14, 20</u>	ITEMS¶ FOLLOWED IN OR REPORT¶ Table 1¶ Enclosure 2¶ Formatted: Font: 12 pt, Bold Formatted: Font: 10 pt
OR Open Item 02-03	More objective criteria (comparison to data not used in the development of the model), typically resulting in higher confidence in model validation are not distinguished from the more subjective, problematic criteria.	<u>OR-02-01</u>	OR Report No: O June 11, 20	
OR Open Item 02-02	Current process controls specify that one or more of nine criteria may be used to validate a model. All the criteria should increase confidence in the modeling process: some criteria do not appear to be appropriate for addressing whether the model is valid for its intended use.	<u>OR-02-01</u>	OR Report No: O April 14, 20	_
OR Open Item 02-01	Failure to properly include the specific issues identified in the Concerns Program Final Report in the resolution process may result in not adequately addressing the original employee's concern.	<u>OR-02-01</u>	OR Report No: O January 23, 2	_
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