



**Department of Energy**  
Office of Civilian Radioactive Waste Management  
Yucca Mountain Site Characterization Office  
P.O. Box 98608  
Las Vegas, NV 89193-8608  
AUG 21 1996

Robert W. Craig  
Technical Project Officer  
for Yucca Mountain  
Site Characterization Project  
U.S. Geological Survey  
1261 Town Center Drive  
Building 4, Room 423, M/S 423  
Las Vegas, NV 89134

**VERIFICATION OF CORRECTIVE ACTION AND CLOSURE OF DEFICIENCY REPORT  
(DR) YM-96-D-052 RESULTING FROM OFFICE OF QUALITY ASSURANCE AUDIT  
OQA-SA-96-013 OF SATEC SYSTEMS, INC.**

The Yucca Mountain Quality Assurance Division staff has verified the corrective action to DR YM-96-D-052 and determined the results to be satisfactory. As a result, the DR is considered closed.

If you have any questions, please contact either Robert B. Constable at (702) 794-5580 or Daniel A. Klimas at (702) 794-1495.

Richard E. Spence, Director  
Yucca Mountain Quality Assurance Division

YMQAD:RBC-2449

Enclosure:  
DR YM-96-D-052

cc w/encl:  
J. G. Spraul, NRC, Washington, DC  
S. W. Zimmerman, NWPO, Carson City, NV  
T. H. Chaney, USGS, Denver, CO  
Records Processing Center

cc w/o encl:  
W. L. Belke, NRC, Las Vegas, NV  
D. A. Klimas, YMQAD/QATSS, Las Vegas, NV  
D. G. Sult, YMQAD/QATSS, Las Vegas, NV  
D. G. Horton, OQA, NV

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Add: J.G. SPRAUL

OFFICE OF CIVILIAN  
RADIOACTIVE WASTE MANAGEMENT  
U.S. DEPARTMENT OF ENERGY  
WASHINGTON, D.C.

8  Performance Report  
 Deficiency Report  
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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document: SATEC Systems Inc. QA Manual, Revision 4  
2 Related Report No. OQA-SA-96-013

3 Responsible Organization: USGS / SATEC Systems Inc.  
4 Discussed With: D. Harris (Service QA Manager)

5 Requirement/Measurement Criteria:  
1. SATEC QA Manual, Revision 4, Section 4C, Paragraph 4C.3, states in part: "...The completion of this indoctrination training shall be documented and the documentation shall be kept on file."  
2. SATEC QA Manual, Revision 4, Section 2C, Paragraph 2C.3, states in part: "...The person(s) responsible to maintain the controlled copy shall remove the outdated pages, replace them with the updates, and sign the manual assignment page."  
3. SATEC QA Manual, Section 8, Paragraph 8.5, states in part: "...After each recall list is checked by the Service Operations Assistant, the Service Manager will approve the list."

6 Description of Condition:  
1. Documentation of the indoctrination training of individuals is inadequate for determining the specific training that was administered, i.e., identifying training to specific procedures or the content of training.  
2. The control and distribution of manuals and procedures are not being adequately implemented as some of the manual assignment pages are not being returned as required.  
3. The calibration recall system requires that the Service Manager approve the recall list in order to issue purchase orders for equipment requiring calibration. This is not being implemented.  
4. Calibration equipment that is taken out of use is stored in an area that is segregated from usable equipment, but was not tagged "Do Not Use," as required by the QA Manual.

7 Initiator: Daniel A. Klimas Date 04/02/96  
9 QA Review: Daniel Klimas Date 4/12/96  
QAR: [Signature]

10 Response Due Date: 20 Working Days From Issuance  
11 QA Issuance Approval: [Signature] Date 4/16/96  
QAR: [Signature]

12 Remedial Actions:  
N/A

13 Remedial Action Response By: N/A Date  
14 Remedial Action Due Date: N/A Date

15 Remedial Action Response Acceptance: QAR N/A Date  
16 PR Verification/Closure: QAR N/A Date

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U.S. DEPARTMENT OF ENERGY  
WASHINGTON, D.C.**

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**DEFICIENCY REPORT**

**17 Recommended Actions:**

Determine the impact on the quality of the calibration services provided as a result of the cited deficiencies and evaluate the effectiveness of the internal audit program.

**18 Investigative Actions:**

As a result of this deficiency, the requirement to calibrate the SATEC load frame has been reconsidered. Based on experience with the equipment on the type of data being produced, calibration is not required. The load frame is used as a means of compression to extract water according to HP-223 and HP-249. Exact pressures are not required by either procedure. The purpose of compressing a sample is simply to extract enough water for analysis. Determining the exact amount of pressure needed to produce a measured volume of water is *not* the purpose of this procedure.

There is no effect on data as a result of deleting the requirement for calibration of the load frame.

**19 Root Cause Determination:**

**20 Action to Preclude Recurrence:**

HP-223 and HP-249 will be modified within 60 days to delete the requirement for calibration of the SATEC load frame.

<p><b>21 Response by:</b> <i>Wayne Rodme</i> Date <i>5/20/96</i></p>	<p><b>22 Corrective Action Completion Due Date</b> July 19, 1996</p>
<p><b>23 Response Accepted QAR:</b> <i>Daniel A. Kinnas</i> Date <i>7/3/96</i></p>	<p><b>24 Response Accepted AOQAM:</b> <i>Wayne Rodme</i> Date <i>7/17/96</i></p>
<p><b>25 Amended Response Accepted QAR:</b> <i>N/A</i> Date</p>	<p><b>26 Amended Response Accepted AOQAM:</b> <i>N/A</i> Date</p>
<p><b>27 Corrective Actions Verified QAR:</b> <i>Don Samples</i> Date <i>8/4/96</i></p>	<p><b>28 Closure Approved by:</b> <i>W. Rodme</i> Date <i>08.20.96</i></p>

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PR/DR CONTINUATION PAGE

Block 5, Requirement/Measurement Criteria, cont'd

4. SATEC QA Manual, Section 9, Paragraph 9.4, states in part: "...In the event calibration equipment is found to be out of calibration or frequently out of calibration, it shall be taken out of use, stored in an area that is segregated from equipment that are in use, and tagged, "Do Not Use," until such time as it is repaired or discarded."
5. SATEC QA Manual, Section 9, Paragraph 9.4, states in part: "...If deficiencies were noted during a vendor audit, the vendor may be conditionally approved for up to one year. If the deficiencies have not been corrected within a year, the vendor shall be removed from the Approved Vendors List.
6. SATEC QA Manual, Section 9, Paragraph 9.1, states in part: "...All vendors who supply products or services to SATEC Calibration Service, that directly affect the quality of the calibration service SATEC supplies shall be evaluated (audited) on site at least once every three years."
7. SATEC QA Manual, Revision 3, Section 9, Paragraph 9.3, states in part: "...Upon receiving notification of a new vendor, the Product Manager for Quality shall contact the vendor and arrange for the vendor to fill-out a Quality Assurance Survey."
8. QARD, DOE/RW-0333P, Revision 5, Section 17, Paragraph 17.2.11 A, states in part: "...QA records shall be temporarily stored in a container of facility with a fire rating of 1-hour, or dual storage shall be provided."

Block 6, Description of Condition, cont'd

5. A vendor audit that was performed by SATEC of Rice Lake Weighting Systems identified a deficiency, there was no evidence that this deficiency was corrected, or that a follow-up verification was performed to close out the deficiency, or that the vendor was removed from the Approved Vendors List.
6. The National Standards Testing Laboratory and the Boekeler Instrument Company were not evaluated (audited) on a triennial basis.
7. Vendors are required to complete a quality assurance vendor survey in order to verify conformance to purchase order requirements. The surveys for National Standards Testing Laboratory and Boekeler Instrument Company could not be located.
8. Nonpermanent Quality Assurance records are on file and maintained for the appropriate period of time; however, these records do not meet the storage requirements for 1-hour fire rated container or facility or dual storage.



August 14, 1996

To: DR YMQAD-96-D052 File

From:  Dan Klimas

DR YMQAD-96-D052

In response to this DR, a Supplier Evaluation Report was initiated by the U.S. Geological Survey to remove this supplier from the OCRWM QSL.

Calibration of the Load Frame is not required to extract water from core samples.