



Department of Energy

Washington, DC 20585

QA: L

OCT 23 1997

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VERIFICATION OF CORRECTIVE ACTION AND CLOSURE OF DEFICIENCY
REPORTS (DR) YM-97-D-065 AND YM-97-D-066 RESULTING FROM OFFICE OF
QUALITY ASSURANCE (OQA) SURVEILLANCE LLNL-SR-97-039 OF
LAWRENCE LIVERMORE NATIONAL LABORATORY

The OQA staff has verified the corrective actions to DRs YM-97-D-065 and
YM-97-D-066 and determined the results to be satisfactory. As a result, the DRs are
considered closed.

If you have any questions, please contact either James Blaylock at (702) 794-1420 or
John R. Doyle at (702) 295-2822.

Catherine Hampton for
Donald G. Horton, Director
Office of Quality Assurance

OQA:JB-0135

Enclosure:
DRs YM-97-D-065 and
YM-97-D-066

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8 Performance Report
 Deficiency Report
 NO. YM-97-D-065
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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document: Technical Implementation Plan (TIP)-NF-31, Revision 1	2 Related Report No. LLNL-SR-97-039
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3 Responsible Organization: Lawrence Livermore National Laboratory (LLNL)	4 Discussed With: Royce Monks, James Ziemba
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5 Requirement/Measurement Criteria:

TIP-NF-31, Revision 1, "Neutron and Gamma (Density) Logging in Welded Tuff"

Paragraph 5.0 states in part: "The field measurement sequence includes measurements of a standard outside the boreholes and measurements within boreholes for moisture or density testing.

a) Measurement of Standard Counts: The calibration of the moisture or density system is made in terms of a ratio to standard count made with the probe secured within the shielded surface unit or a special calibration fixture. A log will be kept of the standard counts taken before and after each borehole survey to allow the user to determine when a defect occurs and the rate of change per unit time of course. Selection of an appropriate base station location is discussed in the manual of operation."

In addition, Paragraph 6.0 states in part: "Documentation of the methods or procedures used to perform the test/activity will be provided in the Scientific Notebooks (SN) and the method or approach used will be determined by the Principal Investigator (PI) or the person assigned by the PI to do the work. As such, deviations from the suggested or typical approaches outlined in this procedure are allowed based on the technical judgment of the scientist responsible for this activity. Revised procedures will then be prepared to reflect changes, when appropriate.

6 Description of Condition:

Contrary to the above requirements, standard counts were not recorded in SN 00291 before and after the logging of boreholes ESF-TMA-HYD-1 and ESF-TMA-HYD-2. In addition, the above deviation was not documented in the SN for this activity nor the procedure revised to reflect same.

7 Initiator John R. Doyle <i>John R. Doyle</i> Date <u>7/2/97</u>	9 Is condition an isolated occurrence? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown; Must be Yes if PR
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10 Recommended Action: (Not required for PR)

1) Investigate impact on quality of the data collected.
 2) Revise procedures, if necessary, to reflect current practice.

11 QA Review: <i>John R. Doyle</i> QAR John R. Doyle Date <u>7/2/97</u>	12 Response Due Date 20 working days from issuance
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13 Affected Organization QA manager Issuance Approval: (QAR for PR) Printed Name <u>DONALD G. HOOD</u> Signature <i>Donald G. Hood</i> Date <u>7/10/97</u>

22 Corrective Action Verified QAR <i>John R. Doyle</i> Date <u>10/16/97</u>	23 Closure Approved by: (N/A for PR) <i>ACQAM</i> Date <u>10/22/97</u>
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PERFORMANCE/DEFICIENCY REPORT RESPONSE

14 Remedial Actions:

Review of Scientific Notebook SN00261 shows that the deviation from the procedure was noted and with explanation. This is allowed in paragraph 6 of TIP-NF-31. The decision to make the change in the procedure is allowed for both in the TIP and in 033-YMP-QP 5.0. There was no adverse affect on data collection as the log of standard counts was taken at the beginning and end of each shift.

15 Extent of Condition: (Not required for PR)

16 Root Cause Determination: (Not required for PR) Required: Yes No

17 Action to Preclude Recurrence: (Not required for PR) Required: Yes No

033-YMP-QP 5.0 will be revised to make clear the responsibility for changing the TIP in a timely manner to reflect actual work.

18 Corrective Action Completion Due Date:

September 8, 1997

19 Response by:

Joseph S. Melo

Date 8-13-97 Phone 510 427-6518

20 Response Accepted

QAR *John M. Doyle*

Date 8/19/97

21 Response Accepted (N/A for PR)

DOQA *R.W. Clef*

Date 8/25/97

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PR/DR CONTINUATION PAGE

This Deficiency Report cited that contrary to technical procedure NF-31, Rev. 1 standard counts were not taken before and after each borehole neutron logging episode.

The following corrective actions were verified at Lawrence Livermore National Laboratories (LLNL):

A. Remedial Actions - Review of Scientific Notebook SN00261 shows that the deviation was noted with an explanation and is allowed by paragraph 6 of NF-31, R1. There was no adverse impact on data collection because standards counts were taken at the beginning and end of a shift.

A review of Scientific Notebook SN00261 confirms that another more detailed procedure that allows for the performance of standard count checks at the beginning and end of a shift was included. This other more detailed procedure was attached to the scientific notebook a few pages after the attachment of NF-31. A discussion with R. Carlson provided the justification and history of the procedure and resulted in a determination that there were no impacts on the data collection.

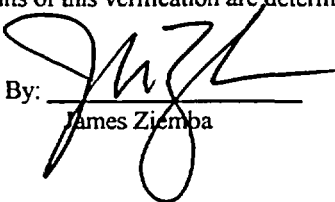
An interview of D. Wilder - Principal Investigator and Task Leader for the subject activities confirms that standard counts taken at the beginning and end of the shift instead of after each borehole was acceptable and is a good radiation protection practice.

C. Actions to Preclude Recurrence - Revise 033-YMP-QP-5.0 to make clear the responsibility for changing a TIP in a timely manner.

A review of QP-5.0 Revision 4, CN # 5.0-4-2 - Technical Implementing Procedures (effective 9-12-97) confirms that a change to the procedure was made to clarify the responsibilities for revising TIPs in a timely manner.

The results of this verification are determined to be satisfactory.

Verified By:


James Ziembra

Date: 9-22-97

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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document: Quality Assurance Requirements Description (QARD) Department of Energy/RW-0333P, Revision 7	2 Related Report No. LLNL-SR-97-039
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3 Responsible Organization: Lawrence Livermore National Laboratory (LLNL)	4 Discussed With: Royce Monks, James Ziemba
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5 Requirement/Measurement Criteria:

QARD Section 5.2 Requirements states: "Work shall be performed in accordance with implementing documents."
 Section 6.2.1 states in part: "Implementing documents and documents that specify technical ^{HTA 7/1/97} requirements or quality requirements shall be controlled ..."

6 Description of Condition:

A review of Technical Implementation Plan (TIP)-NI-031, Revision 1, reveals that instructions to operate the neutron tools are described in the operations manuals. Contrary to the above requirement, a Campbell Pacific Nuclear operations manual for a 501 DR Depth Probe Moisture/Density Gauge, dated 6/27/84, is being utilized to perform quality affecting activities and not controlled.

7 Initiator John R. Doyle <i>John R. Doyle</i> Date 7/2/97	9 Is condition an isolated occurrence? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown; Must be Yes if PR
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10 Recommended Action: (Not required for PR)

Revise TIP-NF-031 to have as an attachment the operations manual for this activity.
 Investigate to determine if any other activities are affected by the above adverse condition to quality.

11 QA Review: QAR John R. Doyle <i>John R. Doyle</i> Date 7/2/97	12 Response Due Date 20 working days from issuance
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13 Affected Organization QA manager Issuance Approval: (QAR for PR) Printed Name <u>DONALD G. HORTON</u> Signature <i>Donald G. Horton</i> Date <u>7/10/97</u>	
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22 Corrective Action Verified QAR <i>John R. Doyle</i> Date <u>10/10/97</u>	23 Closure Approved by: (N/A for PR) <i>James Ziemba</i> Date <u>10/22/97</u>
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PERFORMANCE/DEFICIENCY REPORT RESPONSE

14 Remedial Actions:

Revise TIP-NF-31 to include Campbell Pacific Nuclear Operations Manual for the 501 DR Depth Probe Moisture/Density Gage as an attachment to the TIP.

15 Extent of Condition: (Not required for PR)

All current TIPs were reviewed. No other TIPs contained references to manufacturer's manuals.

16 Root Cause Determination: (Not required for PR)

Required: Yes No

17 Action to Preclude Recurrence: (Not required for PR)

Required: Yes No

Revise 033-YMP-QP 5.0 to specifically note that Manufacturer Operations Manuals must be included as attachments to TIPs.

18 Corrective Action Completion Due Date:

September 8, 1997

19 Response by:

Royce Mould

Date 8-8-1997

SIO
Phone 422-6518

20 Response Accepted

QAR *John R. Day*

Date 8/19/97

21 Response Accepted (N/A for PR)

DOQA *R.W. Cap*

Date 8/25/97

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This Deficiency Report cited that technical procedure, TIP-NF-31, references and utilizes a manufacturer's operations manual for the performance of quality affecting work.

The following corrective actions were verified at Lawrence Livermore National Laboratories (LLNL):

A. Remedial Actions - Revise TIP-NF-31 to include the Campbell Pacific Nuclear Operations Manual as an attachment to the TIP.

A Review of TIP-NF-31, Revision I, CN-TIP-NF-31-1-1 confirms that Campbell Pacific Nuclear Operations Manual is included as an attachment.

B. Extent of Condition - A review of all TIPs indicated that no other TIPs contained references to manufacturers manuals.

A review of the following TIPs (sample of currently active, latest revision TIPs) reveals:

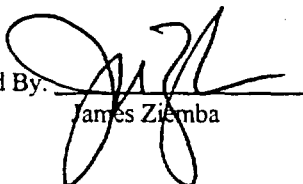
TIP # - Results

CM-01 - 04 no reference to manual
CM-05 - refers to and includes the manufacturer manual (note all steps are in procedure)
CM-06 - 08 no reference to manual
GM-01 - refers to and includes manual
GM-02 - no reference to manual
GM-03 - refers to and includes manual
GM-04 - refers to and includes manual
GM-05 - no reference to manual
GM-07 - refers to and includes
GM-12 - no reference to manual
GM-15 - refers to and includes a NIST special publication for calibration of thermometers
NF-32 - no reference to manual
NV-01 - no reference to manual
NV-02 - refers to and includes manual
YM-09 - refers to and includes manual
YM-12 - no reference to manual
YM-17 - no reference to manual
WF-02 - refers to and includes manual
WF-03 - refers to and includes manual
WF-05 - includes a copy of manual
WF-06 - refers to and includes manual
WF-07 - refers to and includes manual

C. Actions to Preclude Recurrence - Revise 033-YMP-QP-5.0 to specifically note that Manufacturer Operations Manuals must be included as attachments to TIPs.

A review of QP-5.0 Revision 4, CN # 5.0-4-1 confirms that a change to the procedure was made to note that manufacturers operations manuals must be included as an attachment

The results of this verification are determined to be satisfactory.

Verified By: 
James Ziemba

Date: 9-22-97