

# Day-to-Day Oversight of National Laboratory MC&A Programs

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**DAY-TO-DAY OVERSIGHT  
OF  
NATIONAL LABORATORY MC&A PROGRAMS**

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**ABSTRACT**

The U.S. Department of Energy's (DOE) orders require that its Los Alamos Area Office (LAAO) oversee the day-to-day activities of the Los Alamos National Laboratory (LANL). Making that oversight unobtrusive is important to keep it from creating additional burdens of reports and programs for the LANL. LAAO accomplishes day-to-day oversight of Material Control and Accountability (MC&A) at the LANL as an onsite observer of LANL's in-house monitoring activities. Working guidelines established for the LAAO observer prevent us from hindering LANL's program. A subset of MC&A activities that spans a wide range of MC&A programs with great sensitivity to functionality was selected for monitoring. Thus, timely "finger on the pulse" monitoring occurs without smothering the laboratory. LAAO and LANL Management negotiated implementation and observer guidance for the monitoring process. LAAO will apply the method used to other topical areas of the Safeguards and Security arena in the future.

**INTRODUCTION**

DOE Order AL 1120 details division of responsibilities between the Albuquerque Operations Office (AL) and the Los Alamos Area Office (LAAO). Specifically for MC&A, LAAO has a Level "B" responsibility:

1) "The Area Office has primary responsibility for on-site implementation of functional program/policy guidance provided by DOE Headquarters and AL Headquarters

with some technical direction coming from the AL Headquarters functional area.

2) The Area Office is responsible for the day-to-day oversight of contractor activities.

3) The Area Office takes independent action with respect to on-site activities. The Area Office is responsible for problem resolution with assistance from AL Headquarters as needed."

The second imperative is the subject of this paper. In the spirit of today's DOE, this activity must be carried out in a manner that does not impose additional cost on the laboratory or inhibit its primary mission. To accomplish this task following those guidelines, we chose to monitor the LANL's performance by observing its ongoing MC&A activities. The steps taken were:

1) Select a subset of the LANL MC&A programs that provided the broadest range of coverage with the highest sensitivity to the critical elements of the MC&A program.

2) Establish a set of working guidelines for carrying out the observation that would not inhibit LANL's performance of their MC&A task. A negotiation process determined the guidelines.

3) Accomplish documentation by using routine reports that are currently filed with DOE AL and/or LAAO.

## PROGRAM SELECTION

To select a set of MC&A activities that provides the widest range of coverage with the greatest sensitivity to critical elements, we performed a twofold evaluation of the existing LANL MC&A activities. Each activity was given a grade (A through E) for scope of coverage and a

grade for the impact with which it detected MC&A defects. The grades are subjective assignments made by the author and could be debated. A combination of the scope and impact grades, with equal weighing determined the ranking. The DOE observer participates in the top four activities. Table I illustrates the selection process.

TABLE I

MC&A ACTIVITY	FREQUENCY	SCOPE	IMPACT	RANK
Internal review and assessment	1-3 year cycle	A	B+	1
Inventory difference evaluation	Monthly	A	B+	1
Measurement control review	Monthly	B+	A	1
Physical inventory	Bimonthly	A	B	2
MIP review and evaluation	Daily	B	A	2
Process accountability flow diagram review	As needed	B	A	2
Shipper/receiver difference review	As needed	C	A	3
Portal monitor testing	Weekly	C	B	4
Inventory verification measurements	Continuous	C	C	5
Performance testing	Annually	C	C	5
TID audits	Annually	D	C	6
Access list review	As needed	D	D	7

The list of MC&A activities may not be exhaustive, but it does include the major programs currently being conducted at LANL. Although the physical inventory was ranked as a Grade 2, it is included because its Scope rating is A and because no Grade 1 activity occurs during the inventory. A single DOE/LAAO MC&A representative cannot possibly observe all the activities, so choices were made.

## OBSERVER GUIDELINES

The most sensitive part of the process is negotiating a set of rules for the DOE observer's participation. The sensitivity is so great that we use the term "guidelines" instead of "rules." The necessary objective is to not create a situation that would inhibit the free flow of information and the candor from the LANL employees needed to effectively accomplish the MC&A function. If

the presence of the DOE observer or his/her participation causes operating personnel to be reticent about seeking to solve MC&A problems, the oversight process becomes self-defeating. Because natures of the people involved differ and the frequency of the activity varies, the guidelines may need to be different for different situations.

For the Measurement Control Review (MCR) and Inventory Difference Evaluation (IDE) activities, generally the same set of professional scientists are involved each time. These two activities occur each month. For the Internal Review and Assessment (IRA) and Physical Inventory (PI) activities, the operating people who are less acquainted with the DOE MC&A staff are much more involved. The activities are repeated more irregularly and less frequently. In general, in a situation where the professional MC&A personnel are

involved, a DOE observer can more overtly participate in discussion and ask questions. When the operating staff come into direct contact with a DOE observer, an adversarial "us versus the auditor" attitude tends to occur, which inhibits the functionality of the MC&A activity. Therefore two sets of guidelines were negotiated.

#### A. Guidelines for MCR oversight

1. The LAAO role is as an observer.
2. The LAAO observer's attendance is not necessary for the activity to proceed. (The LAAO observer may attend as he/she desires. The courtesy of a call to the LANL MC&A activity coordinator if the observer is unable to attend is desirable.)
3. The LANL MC&A representative will add the LAAO observer to his/her memo distribution list for the activity.
4. The LAAO observer may ask questions and actively participate in group discussions.
5. The LAAO observer should not dictate solutions verbally, but may offer suggestions.
6. A copy of the final reports, minutes, etc. will be sent to the LAAO observer.
7. Additional rules or modifications may be negotiated as necessary.

Under the criteria described here, the A guidelines would seem to apply to the IDE activity. However LANL contended that the presence of a DOE observer with free rein to question might cause the operating personnel to feel inhibited in discussions that depend on an air of open searching for explanations. While hoping that an aura of trust and teaming to solve problems can be built, we recognize that the new DOE approach is still overshadowed by a past audit-finding image. Therefore the IDE is included with the B guidelines.

#### B. Guidelines for IDE, IRA, and PI oversight

1. The LAAO role is as an observer.
2. The LAAO observer's attendance is not necessary for the activity to proceed. (The LAAO observer may attend as he/she may desire. The courtesy of a call to the LANL MC&A activity coordinator if the observer is unable to attend is desirable.)
3. The LANL MC&A representative will add the LAAO observer to his/her memo distribution list for the activity.
4. The LAAO observer will inform the LANL MC&A activity representative two working days in advance of his/her participation in any activity

that requires access arrangements. (The LANL MC&A representative will identify any need for access arrangements in scheduling memos.)

5. The LAAO observer may ask questions by voicing them through the LANL MC&A activity representative.
6. The LAAO observer may not dictate solutions verbally, but may offer suggestions through the LANL MC&A representative.
7. Reports sent to the LAAO observer:
  - a. For IDE, explanations for IDs that exceed the limit.
  - b. For IRA, final reports of IRAs.
  - c. For PI, final summary statistical statement.
8. Additional rules or modifications may be negotiated as necessary.

#### C. Guidelines for ad hoc situations.

A third group of activities for which the LAAO MC&A observer will be an active participant are ad hoc situations such as:

- Emergency situations with MC&A implications (any emergency at a Category I facility automatically has MC&A implications!)
- Facility design meetings with any SNM involvement.
- Incident investigations with MC&A implications.

For these activities the LAAO observer retains full rights as a participant in all discussion. He/she may ask questions, make suggestions, and verbally insist on full adherence to all DOE orders.

Because DOE owns the nuclear material, the facility, and the liability by provisions of the contract with the University of California, the DOE observer may need to contact LANL staff other than the LANL MC&A representatives. The LANL MC&A representatives should normally be informed when such contact must be made.

#### REPORTS

The LAAO observer will review and include his/her comments on final reports that are transmitted to DOE AL/SNSD by LAAO in accordance with normal reporting cycles. For emergencies, the LAAO observer will inform AL as soon as practical through his/her management at LAAO. Table II summarizes the routine MC&A reports that LANL submits to DOE.

TABLE II. LANL Scheduled MC&amp;A Submissions.

REPORT TITLE	SEND TO	DATE DUE	CYCLE
Portal Monitoring Plan	LAAO		on Rev.
NM Control & Accounting Handbook	LAAO		on Rev.
Material Balance Area Operating Procedures	LAAO		on Rev.
Internal Review and Assessment Reports	LAAO		on Comp.
Inventory Difference Control Charts	LAAO & AL	15th	Monthly
Inventory Verification Program Reports	LAAO	15th	Monthly
Responces to Survey Findings	LAAO	3, 6, 9, & 12/15	Quarterly
Shipper/Receiver Differenc Reports	LAAO	1, 4, 7, & 10/15	Quarterly
Measurement Control Plots	LAAO	1, 4, 7, & 10/15	Quarterly
Process Accountability Flow Diagrams	LAAO	1, 4, 7, & 10/15	Quarterly
741's Open Longer Than 90 Days	LAAO	1, 4, 7, & 10/15	Quarterly
MC&A Plan	LAAO & AL	3/31	Annually
Inventory Adjusments by Account	AL	15th	Monthly
N-22 Inventory Report	AL	4 & 11/20	Semiannually
N-23 Inventory Report	AL	4 & 11/20	Semiannually
Material Status Report	AL	4 & 11/20	Semiannually

### IMPLEMENTATION

This protocol should normally not involve additional cost to the LANL. All the programs being observed are normal day-to-day LANL MC&A activities that will continue to occur whether or not a DOE/LAAO observer is present. The reports generated are those normally submitted to DOE in the course of regular business. Oversight will be carried out to the level permitted by

existing work loads and the number of MC&A oversight personnel available at DOE/LAAO at any particular time. If, in the future LAAO MC&A resources are no longer funded, subsequent actions will be necessary to modify DOE Order AL1120 and the director of DOE AL/SNSD will be notified so that AL MC&A coverage can be provided as deemed necessary.