Department of Energy
National Nuclear Security Administration
Washington, DC 20585

October 22, 2012

OFFICE OF THE ADMINISTRATOR

The Honorable Peter S. Winokur
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW, Suite 700
Washington, DC 20004

Dear Chairman Winokur:

On April 25, 2007, the Defense Nuclear Facilities Safety Board (Board) issued Recommendation 2007-1, *Safety-Related In Situ Nondestructive Assay of Radioactive Material*. The Secretary of Energy accepted this recommendation and the Department of Energy (Department) developed a comprehensive implementation plan to meet the objectives of the recommendation. The purpose of this letter is to report that the Department has completed actions to address the last open commitments and considers the implementation plan for Recommendation 2007-1 closed. A summary of implementation plan commitments and deliverables is enclosed (Enclosure 1).

Commitment 5.5.3 addresses the need to conduct triennial reviews of the need for new Nondestructive Assay (NDA) holdup measurement technology and the status of ongoing NDA-related research and development programs. This commitment is incorporated in the Technical Support Group (TSG) charter (Enclosure 2). This group will continue to support the NDA program in the long term in a manner similar to the Criticality Safety Support Group and with a similar funding mechanism.

Commitment 5.5.4 ensures the Department periodically reviews NDA holdup measurement programs to ensure technology is adequate for their intended purpose. The annual reviews have been incorporated in the assessment planning for the sites of interest both in Environmental Management and the National Nuclear Security Administration (Enclosure 3-7).

The Department recognizes that continuous improvement in the *in situ* NDA can only be achieved with adequate training and qualification of personnel, equipment capabilities, proper guidance and directives, focused research and development, an effective quality assurance program, and oversight. These areas will continue to receive programmatic attention in the future; in addition, the established NDA TSG will track and assess *in situ* NDA issues.

If you have any questions, please feel free to contact me or Mr. Jeffry Roberson, Responsible Manager for 2007-1 Board Recommendation, at (301) 903-9228.

Sincerely,

Thomas P. D'Agostino
Administrator

Enclosures

cc: M. Campagnone, HS-1.1
J. McConnell, NA-00
M. Moury, EM-1

Enclosure 1

Table 1: Summary of Implementation Plan Commitments and Deliverables

Number	Commitment	Deliverable	Record of Completion
5.1.1	Identify Environmental Management (EM) defense nuclear facilities for which a criticality safety program is required (per DOE O 420.1B) and relies upon *in situ* NDA.	List of EM defense nuclear facilities for which a criticality safety program is required per DOE O 420.1B and relies upon *in situ* NDA.	January 29, 2008, Department letter identifying and prioritizing EM defense nuclear facilities for which a criticality safety program is required (per DOE O 420.1B) and relies upon *in situ* NDA. This letter satisfies the completion of Commitments 5.1.1 and 5.1.3 of the Department of Energy Implementation Plan for DNFSB Recommendation 2007-1.
5.1.2	Identify National Nuclear Security Administration (NNSA) defense nuclear facilities for which a criticality safety program is required (per DOE O 420.1B) and relies upon *in situ* Non-destructive Assay (NDA).	List of NNSA defense nuclear facilities for which a criticality safety program is required per DOE O 420.1B and relies upon *in situ* NDA.	January 30, 2008, Department letter regarding National Nuclear Security Administration's (NNSA) deliverables required to fulfill commitments 5.1.2 and 5.1.4 of the Department's Implementation Plan responding to Board Recommendation 2007- 1.
5.1.3	Prioritize EM defense nuclear facilities based upon criticality accident risk for those facilities identified in Commitment 5.1.1.	Prioritized list of EM defense nuclear facilities based upon criticality accident risk.	January 29, 2008, Department letter identifying and prioritizing EM defense nuclear facilities for which a criticality safety program is required (per DOE O 420.1B) and relies upon *in situ* NDA. This letter satisfies the completion of Commitments 5.1.1 and 5.1.3 of the Department of Energy Implementation Plan for DNFSB Recommendation 2007-1.

5.1.4	Prioritize NNSA defense nuclear facilities based upon criticality accident risk for those facilities identified in Commitment 5.1.2.	Prioritized list of NNSA defense nuclear facilities based upon criticality accident risk.	January 30, 2008, Department letter regarding National Nuclear Security Administration's (NNSA) deliverables required to fulfill commitments 5.1.2 and 5.1.4 of the Department's Implementation Plan responding to Board Recommendation 2007- 1.
5.2.1	Establish criteria for conducting state of the practice reviews of; a) training and qualification; b) design requirements for new facilities and equipment; c) standards for conducting NDA holdup measurements; d) implementation of standards; e) research and development; f) quality assurance; and g) oversight.	Review criteria for training and qualification; design requirements for new facilities and equipment; standards for conducting NDA holdup measurements; implementation of standards; research and development; quality assurance; and oversight.	December 22, 2008, Departmental letter regarding the completion of Commitments 5.2.1, 5.2.2, 5.2.3, and 5.5.2 in the Implementation Plan for Board Recommendation 2007-01.
5.2.2	Establish schedule to conduct state of the practice reviews (to be completed within one year) of EM facilities identified in Commitment 5.1.3.	Schedule of reviews.	December 22, 2008, Departmental letter regarding the completion of Commitments 5.2.1, 5.2.2, 5.2.3, and 5.5.2 in the Implementation Plan for Board Recommendation 2007-01.
5.2.3	Establish schedule to state of the practice reviews (to be completed within one year) of NNSA facilities identified in Commitment 5.1.4.	Schedule of reviews.	December 22, 2008, Departmental letter regarding the completion of Commitments 5.2.1, 5.2.2, 5.2.3, and 5.5.2 in the Implementation Plan for Board Recommendation 2007-01.

5.2.4	Conduct EM state of the practice reviews per the schedule established in Commitment 5.2.2 with the assistance of the NDA Technical Support Group.	Reports to the Program Secretarial Officer (PSO) indicating the results of the reviews, any concerns and the actions necessary to address the concerns.	November 18, 2009, Department letter forwarding the deliverables for commitments 5.2.4 and 5.2.5 in the 2007-1 Implementation Plan.
5.2.5	Conduct NNSA state of the practice reviews per the schedule established in Commitment 5.2.3 with the assistance of the NDA Technical Support Group.	Reports to the PSO indicating the results of the reviews, any concerns and the actions necessary to address the concerns.	November 18, 2009, Department letter forwarding the deliverables for commitments 5.2.4 and 5.2.5 in the 2007-1 Implementation Plan.
5.2.6	Identify good practices discovered during the state of the practice reviews with respect to training and qualification, design requirements for new facilities and equipment, standards for conducting *in situ* NDA holdup measurements, implementation standards, research and development, quality assurance, and oversight.	Report identifying good practices with respect to training and qualification, design requirements for new facilities and equipment, standards for conducting *in situ* NDA holdup measurements, implementation standards, research and development, and oversight.	January 19, 2010, Department letter transmitting the report that supports completion of the Section 5.2.6 commitments in the 2007-1 IP.
5.2.6.1	Identify good practices, for both commercial and within the Department, for NDA training and qualification.	Report identifying good practices for NDA training and qualification.	January 19, 2010, Department letter transmitting the report that supports completion of the Section 5.2.6 commitments in the 2007-1 IP.
5.2.6.2	Identify good practices for both commercial and within the Department, for NDA design requirements for new facilities and equipment.	Report identifying good practices for NDA design requirements for new facilities and equipment.	January 19, 2010, Department letter transmitting the report that supports completion of the Section 5.2.6 commitments in the 2007-1 IP.

5.2.6.3	Identify good practices, for both commercial and within the Department, for standards for conducting *in situ* NDA.	Report identifying good practices for NDA for standards for conducting *in situ* NDA.	January 19, 2010, Department letter transmitting the report that supports completion of the Section 5.2.6 commitments in the 2007-1 IP.
5.2.6.4	Identify good practices, for both commercial and within the Department, for implementation of NDA standards.	Report identifying good practices for implementation of NDA standards.	January 19, 2010, Department letter transmitting the report that supports completion of the Section 5.2.6 commitments in the 2007-1 IP.
5.2.6.5	Identify recent and ongoing research and development applicable to *in situ* NDA, and identify commercially available (domestic and international) instrumentation/methods.	Report identifying ongoing R&D in the US/international laboratories and commercially available instrumentation that would, if implemented, reduce the uncertainties associated with *in situ* NDA.	January 19, 2010, Department letter transmitting the report that supports completion of the Section 5.2.6 commitments in the 2007-1 IP.
5.2.6.6	Identify good practices, for both commercial and within the Department, for implementation of NDA quality assurance.	Report identifying good practices for implementation of NDA quality assurance.	January 19, 2010, Department letter transmitting the report that supports completion of the Section 5.2.6 commitments in the 2007-1 IP.
5.2.6.7	Identify good practices, for both commercial and within the Department, for implementation of NDA oversight.	Report identifying good practices for implementation of NDA oversight.	January 19, 2010, Department letter transmitting the report that supports completion of the Section 5.2.6 commitments in the 2007-1 IP.
5.2.6.8	Identify roles and responsibilities for NDA oversight personnel.	Report identifying good practices for effective oversight.	January 19, 2010, Department letter transmitting the report that supports completion of the Section 5.2.6 commitments in the 2007-1 IP.

5.3.1	Identify DOE NDA holdup measurement needs and technical bases for personnel training and qualification; equipment capabilities; directives; research and development; quality assurance; oversight; and any interim actions.	Report identifying DOE NDA holdup measurement needs with technical bases for personnel training and qualification; equipment capabilities; directives; research and development; quality assurance; oversight; and any interim actions.	June 7, 2010, Department letter informing of the completion of Commitments 5.3.1.4, 5.3.1.5, and 5.3.1.6 in the Implementation Plan for Recommendation 2007-01.
5.3.1.1	Identify NDA personnel training and qualification needs and any interim actions.	Report identifying NDA personnel training and qualification needs.	March 31, 2010, Department letter transmitting the report that supports completion of the Section 5.3.1 commitments in the 2007-1 IP.
5.3.1.2	Identify NDA equipment capabilities and needs and any interim actions.	Report identifying NDA equipment capabilities and needs.	March 31, 2010, Department letter transmitting the report that supports completion of the Section 5.3.1 commitments in the 2007-1 IP.
5.3.1.3	Identify *in situ* NDA directive needs and any interim actions.	Report identifying *in situ* NDA directive needs.	March 31, 2010, Department letter transmitting the report that supports completion of the Section 5.3.1 commitments in the 2007-1 IP.
5.3.1.4	Identify and incorporate the needs for R&D through the Planning, Programming, Budgeting, and Execution process of nuclear safety R&D.	Report identifying the R&D projects for which funding is requested.	June 7, 2010, Department letter informing of the completion of Commitments 5.3.1.4, 5.3.1.5, and 5.3.1.6 in the Implementation Plan for Recommendation 2007-01.
5.3.1.5	Identify quality assurance needs to ensure effective implementation of NDA activities and any interim actions.	Report identifying NDA quality assurance needs.	June 7, 2010, Department letter informing of the completion of Commitments 5.3.1.4, 5.3.1.5, and 5.3.1.6 in the Implementation Plan for Recommendation 2007-01.

5.3.1.6	Identify oversight needs consistent with DOE O 226.1 to ensure effective implementation of NDA activities.	Report identifying NDA oversight needs.	June 7, 2010, Department letter informing of the completion of Commitments 5.3.1.4, 5.3.1.5, and 5.3.1.6 in the Implementation Plan for Recommendation 2007-01.
5.4.1	Perform gap analysis and identify areas for improvement in training and qualification; equipment capabilities; directives; research and development; quality assurance; and oversight.	Gap analysis report identifying areas for improvement in training and qualification; equipment capabilities; directives; research and development; and oversight.	September 20, 2010, Department letter transmitting formal notice of completion of commitment for 5.4.1 of Recommendation 2007-1.
5.4.2	Define and prioritize requirements, programs, and guidance to address gaps in training and qualification; equipment capabilities; directives; research and development; quality assurance; and oversight.	Prioritized action plan with schedule and milestones to address the gap analysis results.	February 15, 2011, Department letter transmitting Deliverable 5.4.2 for the Implementation Plan of Board Recommendation 2007-1.
5.5.1	Establish the NDA Technical Support Group that is responsible and accountable for the identification and resolution of NDA issues and communicating NDA lessons learned.	NDA Technical Support Group established with approved Charter.	August 7, 2008, Departmental letter regarding the completion of Commitment 5.5.1 in the Implementation Plan for Board Recommendation 2007-01.
5.5.2	Identify methods for capturing and clearly communicating NDA lessons learned, new technology, innovative techniques, and areas in NDA in which research and development is needed.	"Information sharing" mechanism functioning for NDA.	December 22, 2008, Departmental letter regarding the completion of Commitments 5.2.1, 5.2.2, 5.2.3, and 5.5.2 in the Implementation Plan for Board Recommendation 2007-01.
5.5.3	Conduct triennial reviews of the need for new NDA holdup measurement technology and the status of ongoing NDA-related research and development programs.	Report to NA-17 on the need for new NDA holdup measurement technology and the status of ongoing NDA-related research and development programs.	Closed by this correspondence.

5.5.4	Conduct periodic reviews to ensure that NDA holdup measurement programs are using technology adequate for their intended purpose.	Schedule of periodic reviews (either incorporated with existing review schedule or as a standalone review).	Closed by this correspondence.
6.3.1	The Department will provide briefings to the Board and Board Staff. These briefings will include updates on the status of completing actions identified in the various reviews indicated in this IP.	Briefings.	Last Board Staff briefing was 22 March 2012.

NA-17 CONTACT INFORMATION

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NA-17 CONTACT INFORMATION

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Joanna Serra	Waste mgmt program lead, program mgr for PX & SNL LTS & env restoration	3-6136	Fax: 3-2544	B-114 GTN
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Rodney Pringle, 6-1561; Joyce Fogel, 3-2752; Brenda Peacock, 3-4766

Enclosure 2

CHARTER OF THE
DEPARTMENT OF ENERGY
NONDESTRUCTIVE ASSAY TECHNICAL SUPPORT GROUP

I. BACKGROUND

On October 24, 2007, the Department of Energy (DOE) accepted Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2007-1, *Safety-Related In Situ Nondestructive Assay of Radioactive Materials*. In DOE's Implementation Plan for the Recommendation, DOE stated:

> *To assist in the Implementation Plan an NDA Technical Support Group of subject matter experts (SMEs) will be established. This support group will consist of Federal employees from Headquarters and Field Elements and DOE management and operating contractors who have expertise in NDA holdup measurement. The support group will assist the Department in the specific areas of concern highlighted in Recommendation 2007-1.*

The original Technical Support Group (TSG) was formed on 31 Jul 2008 in response to DNFSB Recommendation 2007-1 and was comprised of personnel from DOE staff and contractors. TSG Work Instructions are attached as Appendix A. The TSG Membership Policy is attached as Appendix B.

II. MISSION

The primary function of the TSG is to provide operational and technical expertise to the Department of Energy through the Nuclear Criticality Safety Program Manager. The TSG provides advice and technical support to meet the needs of the DOE complex in in situ nondestructive assay, supporting all the unique programmatic needs of EM and NNSA sites. Specific TSG functions include the following:

- Programmatic input regarding the development and implementation of an effective NDA holdup measurement program;
- SMEs to assist in conducting periodic evaluations to ensure that NDA holdup measurement programs are using appropriate technology, consensus standards and processes;
- Conduct triennial reviews of the need for new NDA holdup measurement technology and the status of ongoing NDA-related research and development programs with the first review to be completed by May 2015.
- A mechanism to identify and address major NDA holdup measurement issues that have crosscutting impacts across the DOE complex or within a site;
- A forum for sharing lessons-learned, ideas and proven processes or programs to both DOE and contractor management; and
- A forum for ensuring that advances in DOE and consensus standards are made when appropriate.

III. OPERATION OF THE TSG

A. Organization

The Nuclear Criticality Safety Program Manager appoints a TSG Program Manager who resides within NNSA.

The Chair of the TSG is appointed by the TSG Program Manager. The Chair serves a 3-year term, renewable for an additional 3-year term via mutual agreement between TSG Chair and TSG Program Manager. Extensions beyond six years must be approved by Nuclear Criticality Safety Program Manager as well as mutual agreement between TSG Chair and TSG Program Manager. The Chair is responsible for coordinating the activities of the TSG with the TSG Program Manager and for reporting TSG activities to the TSG Program Manager.

The Deputy-Chair of the TSG is nominated by the membership of the TSG and appointed by the TSG Program Manager. The Deputy-Chair serves a 3-year term, which can be renewed indefinitely via mutual agreement between TSG Program Manager, Chair, and Deputy-Chair. The Deputy-Chair is responsible for assisting the Chair in the completion of TSG activities and performing the duties of the Chair when the Chair is absent.

The TSG Chair may appoint subcommittees from the TSG membership to review, report, or act on any matter of concern that comes before the TSG.

To supplement the expertise of the TSG members, the TSG Chair, with the approval of the TSG Program Manager, may request other qualified individuals to provide the TSG with technical expertise on an as-needed basis to support TSG activities. The Chair and Deputy Chair shall evaluate the membership of the TSG on a periodic basis to ensure that all members are actively participating as needed and that the makeup of the team is appropriate and adequate.

B. Meetings

The Chair shall call TSG meetings as needed with the concurrence of the TSG Program Manager. The presence of the Chair or Deputy-Chair standing in for the Chair is mandatory at TSG meetings. The TSG meets regularly via teleconferences arranged by the TSG Chair and/or by subcommittees appointed by the TSG Chair.

C. Scope of Activities

The TSG provides technical support to the TSG Program Manager for the performance of activities supporting the NDA program. The TSG also provides technical support to DOE to strengthen oversight and application of NDA measurements in support of criticality safety.

The TSG will in general, provide programmatic input regarding the development and implementation of effective NDA programs at DOE sites, provide SMEs to assist in conducting assessments, identify and address NDA holdup measurement issues of importance, share lessons-learned, ideas and proven processes or programs, and provide a forum for developing DOE and consensus standards for NDA measurement where appropriate.

APPROVED:

Dr. Jerry N. McKamy, Director Office of Facility Operations,
NA-162, DOE Nuclear Criticality Safety Program Manager

Jeffry Roberson, TSG Program Manager

APPENDIX A

TSG WORK INSTRUCTIONS

This set of work instructions is provided by the TSG Program Manager to set performance expectations for the TSG. The TSG Program Manager may modify the TSG Work Instructions as necessary. Revisions to these work instructions shall be distributed promptly to the TSG through the Chair or Deputy-Chair.

TSG Meetings

An agenda for each TSG meeting shall be issued by the Chair or Deputy-Chair in advance of a scheduled meeting and distributed to the members of the TSG and the NDA program manager together with any materials needed for review of the agenda items.

The Chair or Deputy-Chair will document outcomes of agenda item discussion in a manner acceptable to the TSG Program Manager.

Discussion documentation will be distributed to the TSG, the TSG Program Manager, and Nuclear Criticality Safety Program Manager by the Chair or Deputy-Chair..

TSG Reports

The results of any evaluation, review, technical-assist visit or similar activity by the TSG shall be transmitted to the TSG Program Manager in a formal report. These reports shall represent the consensus position of the TSG members.

All formal written correspondence on behalf of, or representing the TSG individually or collectively, must be reviewed and approved by the TSG Program Manager prior to distribution.

In the event of serious disagreement with the content of any report, TSG members either individually or with other members, may submit a minority report to the TSG Program Manager. The TSG Program Manager will take action as needed to resolve the issues raised and will inform the authors of the resolution.

TSG Communications

TSG members, as part of their duties with the TSG may answer any informal inquiry from any Departmental element or the Defense Nuclear Facilities Safety Board or its Staff. The TSG Program Manager should be kept informed of all such communication.

All invitations to external agencies (i.e.; DNFSB, DNFSB Staff, NRC, etc.) to attend TSG meetings or activities shall be made by the TSG Program Manager.

Issues internal to the TSG must be kept within the TSG until an official consensus position has been reached and the NDA program manager grants approval to release or discuss the information with non-TSG members.

Discussion topics that the TSG believes should be vetted with any Departmental element or the DNFSB or its staff must be provided to the TSG Program Manager who will make the arrangements through appropriate channels. TSG members are not authorized to unilaterally engage external agencies on TSG matters in their capacity as TSG members.

Consequences of Noncompliance

Noncompliance with the requirements of this Appendix may result in dismissal from the TSG.

APPENDIX B

TSG MEMBERSHIP POLICY

Composition of the TSG

The membership of the TSG shall be limited to 8-members and no less than 5. Members may receive funding support from the Nuclear Criticality Safety Program Manager as appropriate to their specific tasks and roles on the TSG. The TSG should, to the extent possible, include extensive expertise and experience in facility uranium and plutonium NDA measurements. Members should represent: a reasonable cross section of the major user sites (LANL, SRS, Y-12, etc.), provide NDA related expertise in the topical areas of training, equipment, directives, R&D, quality assurance, and oversight, and reflect the needs of criticality safety, operations, and nuclear materials control and accountability. The TSG may form unofficial subcommittees, working groups or mentoring relationships comprised of non-TSG members as needed with approval of TSG Chair and TSG Program Manager. However, these ad-hoc participants are not voting members of the TSG nor are they funded directly by the Nuclear Criticality Safety Program Manager unless explicitly directed. All TSG members are appointed and serve with the approval of the TSG Program Manager.

TSG Member Qualifications

The following are minimum qualification requirements for membership in the TSG.

1. At least 8 years experience in the fields of NDA and/or Criticality Safety.
2. Hold an advanced degree in a technical discipline. Additional professional experience may substitute for an advanced degree.
3. Demonstrated leadership and expertise in nondestructive assay. This is typically achieved through a combination of factors including; participation in national standards committees or working groups, technical publications, management experience, etc.
4. Hold appropriate security clearances.
5. Once appointed to the TSG, membership is maintained by participation in TSG meetings and activities. The TSG Program Manager assesses the participation level of individual members and recommends retention or dismissal.

Selection of New Members (unanticipated vacancy)

When an unanticipated vacancy occurs in the TSG, a new member is nominated and appointed via the following process.

1. The chair solicits nominees from the TSG members and NDA professionals at large.
2. The Chair and Deputy-Chair evaluate all nominees and recommend a single candidate to the TSG Program Manager for concurrence. If the TSG Program Manager rejects candidate, the Chair and Deputy-Chair will submit another recommendation until concurrence is obtained.

3. The TSG votes to confirm the candidate selected under step 2 above. A 2/3 majority of votes will result in appointment.
4. In the event of a less than 2/3 majority vote, the TSG Program Manager will appoint candidate or revoke previous concurrence. In the event of revoked concurrence steps #2 – #4 would be repeated.

Succession Planning (anticipated vacancy)

Succession planning shall be conducted when deemed necessary. The following process should be used by the TSG when a member anticipates leaving the TSG and the TSG Program Manager requests a member be added to the TSG or the number of TSG members would be less than the minimum of five.

1. The TSG Chair shall provide to the TSG Program Manager the name of the leaving member and the approximate date of resignation.
2. A succession candidate shall be identified using the protocol for selection of new members.
3. A successor should be appointed one-year prior to the resigning member leaving if the number of current TSG members is five or less. Steps four and five below are not required if the current TSG membership is six or more.
4. During the overlap period, the Nuclear Criticality Safety Program Manager shall provide support for the TSG member and for his successor as necessary. Normally, the successor should be appointed to the TSG within one year of their official appointment as a TSG successor.
5. The successor should attend as many TSG meetings and activities as possible during the transition period. A successor candidate may vote on issues before the TSG.
6. The successor is appointed as an official member of the TSG by the TSG Program Manager on a date agreed to by the TSG Chair. Outgoing members shall become Emeritus Members of the TSG.
7. Emeritus Members are encouraged to continue to participate in TSG activities but will not receive financial support from the Nuclear Criticality Safety Program Manager. Funding may be provided to Emeritus Members for specific technical activities at the discretion of the TSG Program Manager.

APPENDIX C

TSG MEMBERSHIP

David S. Bracken, Ph.D., TSG Chair
Idaho National Laboratory

Frank W. Lamb, TSG Deputy Chair
Frank Lamb NDA Consulting

Jeff Chapman
Oak Ridge National Laboratory

David L. Dolin
Savannah River Nuclear Solutions

Cynthia Gunn
Y-12 National Security Complex

Angela L. Lousteau
Oak Ridge National Laboratory

Glenn L. Pfennigwerth
Y-12 National Security Complex

Thomas Sampson
Sampson Professional Services, LLC

Enclosure 3

Attachment 3

HQ SIAP Input Template

1 **Site Office SIAP** Y-12

2 **Enterprise Functional and Topical Area**

Nuclear Safety -- Nuclear Criticality Safety (NCS). In Situ NDA Hold-up measurements

3 **HQ Functional/Topical Oversight Area POC**

List Name: Jeff Roberson
Organization: NA-171
Phone: 301-903-9228
Email Address: jeffry.roberson@nnsa.doe.gov

4 **Current FY Planned Assessments Identified in Site Assessment Plan**

		Yes	No
a.	Contractor Assessments (Independent, Management, or 3rd Party)	☑	☐
b.	Site office Formal Assessments	☐	☐
c.	Site office joint contractor or shadow assessments	☑	☐
d.	NNSA HQ Led Assessments	☐	☑
e.	External Assessments (HSS, GAO, IG, DNFSB)	☐	☑

5 **Proposed Additional Assessment Activities**

a. Scope of proposed assessment activities:

Modify if needed Contractor and Site office oversight of the Nuclear Criticality Safety Program to explictly include an assessment or other scheduled oversight .activity that periodically monitors processes for the execution of in situ NDA Hold-up measurement for accuracy and consistency

b. Basis for proposed assessment activities: ☑ Required ☐ Risk Informed

c. List specific requirement and associated reference for required assessments

DNFSB Recommendation 2007-1 Implementation Plan - Commitment 5.5.4: Conduct periodic reviews to enesure that NDA holdup measurements are using technology adequate for their intended purpose. Deliverable - Schedule of periodic reviews (either incorporated with existing review schedule of as a stand alone review). NNSA is taking the

d. Describe basis for any proposed risk informed assessments such as an adverse performance trend

N/A

6 **Proposed Shadow Assessments and Assessment Information Requests**

a. Identify Site or Contractor Assessments that you would like to shadow

None.

b. Identify any assessment activities you would like access to information such as reports, assessment plans, etc

All Site Office oversight or shadow activities related to oversight of In Situ NDA measurement process conducted in FY-12.

7 **Site Office Review and Concurrence for Additional Proposed Assessments**

Enclosure 4

Assessment

Assessment #: AST-IMP-11/7/2011-320
Lead Assessor: Kauerz, Trey
Assessment Type: YCON-2
Organization: Engineering, Safety, and Environment (ESE)
Contractor(s): B&W Y-12
Site: Y-12
Assessment Time: 0.00 hours

Earliest Start Date: 6/15/2012
Planned Finish: 9/15/2012
Completed?: No
Actual Finish: N/A
Scheduled?: Yes
Master Assessment Schedule?: Yes
Shadow Assessment?: No

SUBJECT: NCS PROGRAM: MATERIALS CONTROL (INCLUDES COVER THE NDA PROGRAM FOR HOLDUP (KNOWN LOCALLY AS UHSP/IAPP))

Comments

requirement not in listing provided, invokes ANSI/ANS-8

Team Members	Functional Areas Covered	MAP Elements Covered	Facilities Covered	Projects Covered
				Does Not Apply

Enclosure 5

Department of Energy
Washington, DC 20585

APR 0 4 2012

MEMORANDUM FOR MATTHEW S. MCCORMICK
MANAGER
RICHLAND OPERATIONS OFFICE

DAVID C. MOODY
MANAGER
SAVANNAH RIVER OPERATIONS OFFICE

FROM: MATTHEW B. MOURY
DEPUTY ASSISTANT SECRETARY FOR
SAFETY, SECURITY, AND QUALITY PROGRAMS
ENVIRONMENTAL MANAGEMENT

SUBJECT: Periodic Reviews of Non-Destructive Assay (NDA) Holdup Measurement Programs

In Defense Nuclear Facilities Safety Board (Board) Recommendation 2007-1, dated April 25, 2007, the Board requested that the Department of Energy (DOE) establish requirements and guidance for in situ non-destructive assay (NDA) programs that are used to demonstrate compliance with nuclear safety limits. On October 24, 2007, the Secretary of Energy accepted Recommendation 2007-1, and issued the Implementation Plan (IP). As a result, site visits to the Plutonium Finishing Plant (PFP), HB-Line, and the Plutonium Fuel Fabrication facility were conducted in 2008, using the lines of inquiry that are included in the attachment. Commitment 5.5.4 of the IP requires that DOE schedule and conduct periodic reviews to ensure that NDA holdup measurement programs are using technology adequate for their intended purpose. A schedule or documentation of evidence that such reviews have been completed is necessary for closure of Commitment 5.5.4.

Please review your annual oversight schedules, and verify that you have either scheduled or completed the review of your NDA holdup measurement programs associated with the PFP at the Richland Office and HB-Line at the Savannah River Office. The Chief of Nuclear Safety and staff are available to assist you in conducting your reviews according to your established schedules. Please provide a report within 14 days of receipt of this memorandum documenting your scheduling or completion status to Mr. Robert Wilson, Office of Safety Management, at Robert.Wilson@emcbc.doe.gov.

If you have any questions, please feel free to contact me or Mr. Todd Lapointe, Acting Director, Office of Safety Management, at (202) 586-4653.

Attachment

cc: R. Lagdon, S-5
L. Berg, S-5
M. Campagnone, HS-1.1
T. Mustin, EM-2
A. Williams, EM-2.1
J. Hutton, EM-40
T. Lapointe, EM-41 (Acting)
J. Lorence, EM-41

ATTACHMENT

LINES OF INQUIRY

- Does fissionable material holdup in process vessels, gloveboxes, the HVAC, and other accumulation points present a credible criticality accident scenario?
- Are programs and procedures in place for detecting and characterizing accumulations as required by DOE O 420.1B for facilities and equipment that could inadvertently accumulate significant quantities of fissionable materials?
- Is holdup of fissionable material being effectively monitored and controlled as required?
- Of the following types of oversight: Internal organizationally, external organizationally, external to site, which have occurred in the last two years and how frequently (i.e. inspections, safety management evaluations, special reviews, special studies, and follow-up reviews, fact finding meetings, QA reviews to be a calibrating organization, HQ reviews, and DNFSB reviews)?
- How are reviews/assessments performed (i.e., LOIs, document reviews, walk-throughs, interviews, compliance vs. performance-based, etc.)?
- Are there internal/external/self assessment schedules and how are the schedules determined?
- How are assessment results documented?
- How are action items determined?
- How are holdup measurement personnel involved in responses to corrective action plans (CAPS)?
- Are root cause analyses performed?
- How are corrective actions tracked and closure packages completed?
- Are corrective action packages allowed to close based on planned action?
- How are assignments of responsibility assigned for addressing oversight activities?
- What criteria or focus area did oversight and reviews use as a basis for their reviews/findings?
- Are performance metrics generated, or some other means, to promote practices that prevent repeat findings?
- Are outside consultants utilized to provide an independent viewpoint on the overall holdup measurement program?
- How are NDA lessons learned from other facilities reviewed by the NDA staff for potential application at the facilities?
- How are holdup measurement performance metrics established, and if so, what types?
- Where does the in situ NDA holdup program reside in your facility?
- Who provides NDA technical oversight for your entire program?
- Who performs technical data reviews?
- Does the NDA staff demonstrate that they are fully knowledgeable of their assigned tasks and can conduct the operation in a safe and effective manner?
- How does line and/or program management maintain tracking and resolution of holdup measurement deficiencies?

- How are Holdup Measurement funding levels proposed, approved, and adjusted when additional requests are received?
- What are the roles and responsibilities of NDA and holdup measurement staff?
- Where in the organization does the holdup measurement group reside? Where do support personnel (i.e., statisticians) reside?
- Is there adequate staffing to meet demands? How is adequate determined?
- Are the organization structure, functional responsibilities, levels of authority, and lines of communication for the NDA Program and the holdup measurement program documented and understood?
- Are the responsibilities of the holdup measurement project and/or program manager and for the NDA Program clearly defined and understood?
- Do operations and support personnel fully understand functions, assignments, responsibilities, and reporting relationships and can they support line management control of safety?
- Are responsibilities between interfacing organizations well defined and provide for clear and effective communications?
- Are adequate vendor qualifications and oversight programs in place for all procured equipment and service providers?
- Who is responsible for oversight of criticality safety related NDA measurements? Is the same person responsible for safeguards and accountability NDA measurements?
- What are the roles and responsibilities of the NDA personnel in addition to NDA measurements?
- Does the NDA staff review and concur with the applicability of in situ holdup measurements for the proposed NCS requirement and the practicality of proposed limits, controls, and/or measurements that require holdup measurements?
- Does the DOE field office retain NDA-cognizant staff?
- Does the NDA Staff review all operating procedures involving holdup measurement and the use of the data?
- Is the NDA staff involved with decommissioning and construction planning and scheduling prior to commencement of the activities?
- Do all NDA design-related technical documents receive an independent technical peer review before approval for use?
- What organization or job title selects instrumentation and makes instrumentation performance specifications?
- What organization or job title performs initial calibration of instruments? What organization or job title performs routine calibration and validation?
- What organization or job title provides consultation on NDA holdup matters to various facility organizations such as nuclear safety, nuclear materials control and accountability, and waste management?
- Has the minimum number of staff required for operational responsibilities been defined?
- How are specific required measurements delegated and assigned?

Enclosure 6

RL-F-1325.6 (02/98)

United States Government **Department of Energy**

Richland Operations Office

memorandum

DATE: MAY 18 2012

REPLY TO ATTN OF: AMRP:SEC/12-AMRP-0034

SUBJECT: PERIODIC REVIEWS OF NON-DESTRUCTIVE ASSAY (NDA) HOLDUP MEASUREMENT PROGRAMS AT THE PLUTONIUM FINISHING PLANT (PFP)

TO: R. E. Wilson
Office of Safety Management
EM-41, HQ

This memorandum is in response to the April 4, 2012 request for a schedule or documentation of evidence that reviews have been completed for PFP. This information is necessary for closure of Commitment 5.5.4 in the DOE Implementation Plan for the Defense Nuclear Facility Safety Board Recommendation 2007-1.

In 2004, PFP completed its special nuclear material processing mission and began to prepare the facility for demolition. Benefiting from the lessons-learned by Rocky Flats Technology Site, a high priority was given to transitioning, restructuring, and upgrading the NDA program for the upcoming facility deinventory, deactivation, decontamination, decommissioning, and demolition (D&D). Beginning in September 2003 a series of independent, in-depth reviews of the PFP NDA program were performed utilizing expertise from several DOE sites. These reviews provided valuable assistance during program design and assessment of implementation success during the transition from production to D&D. In September 2009 the Technical Support Group performed a State-of-the-Practice review of the NDA In-Situ Holdup Program at PFP finding the "quality of the final assay result and the ability of that result to meet customer needs is quite high."

In compliance with Commitment 5.5.4, the Richland Operations Office conducted a focused assessment of PFP NDA staff qualifications in January 2010. A biennial assessment of the PFP NDA Program is scheduled for September 2012.

If you have any questions, please contact me, or your staff may contact Larry Romine, of my staff, on (509) 376-4747.

Jonathan A. Dowell, Assistant Manager
for the River and Plateau

cc: L. A. Berg, S-5
J. R. Brack, CHPRC
K. T. Brasel, CHPRC
M. Campagnone, HS-1.1
J. M. Carranco, CHPRC
M. A. Gilbertson, EM-10
R. H. Lagdon, S-5
T. N. Lapoint, EM-41
J. G. Lehew, CHPRC
W. M. Levitan, EM-10
J. D. Lorence, EM-41
M. B. Moury, EM-40
T. P. Mustin, EM-2
A. C. Williams, EM-2.1

Enclosure 7

DOE F 1325.8

United States Government **Department of Energy (DOE)**

memorandum

Savannah River Operations Office (SR)

DATE: APR 2 0 2012

REPLY TO ATTN OF: AMNMSP (N. Shepard, 803-208-3618)

SUBJECT: Periodic Review of Non-Destructive Assay (NDA) Holdup Measurement Programs

TO: Matthew B. Moury, Deputy Assistant Secretary for Safety, Security, and Quality Programs (EM-40), HQ

In response to your memorandum of April 4, 2012, attached is a copy of the Assistant Manager for Nuclear Materials Stablization Project's (AMNMSP) Annual Assessment Plan (AAP). The AAP documents an assessment of the NDA Measurements of Potential Fissile Material Accumulations in HB-Line which is scheduled to be completed by June 29, 2012. This information has been provided to Dr. Robert Wilson of the Office of Safety Management (EM-41)

If you have any questions, please call me or have your staff contact Norman Shepard of my staff at (803) 208-3618.

David C. Moody
Manager

NMED:NS:tb

NMED-12-0028

Attachment:
CY12 AMNMSP AAP

cc w/attach:
R Lagdon, S-5, HQ
L. Berg, S-5, HQ
T. LaPointe, EM-41, HQ
R. Wilson, EM-41, HQ

U.S. DEPARTMENT OF ENERGY
SAVANNAH RIVER OPERATIONS OFFICE

ASSISTANT MANAGER FOR NUCLEAR MATERIAL STABILIZATION PROJECT

ANNUAL ASSESSMENT PLAN FOR CALENDAR YEAR 2012

REVISION 2

JANUARY 2012

Developed by:
United States Department of Energy
Savannah River Operations Office

Approved by: _____ **Date:** 4/16/2012
James D. Kekacs, Acting Assistant Manager for
Nuclear Material Stabilization Project (AMNMSP)

Author: _____ **Date:** 4/16/2012
Teressa Butler, Program Support Specialist
Nuclear Material Stabilization Project (NMSP)

REVISION LOG

Revision 0	Initial Issue
Revision 1	Independent Assessment DOE-SR Facility Representative (FR) Program due August 31, 2012 NMSP Management Walkthrough's identified as one per year per Division, as defined on page 7, paragraph four.
Revision 2	Criticality Safety Program Assessment of NDA Measurements of Potential Fissile Material Accumulations in HB-Line, at page 18.

1.0 INTRODUCTION

This document is the Assistant Manager for Nuclear Material Stabilization Projects (AMNMSP) Annual Assessment Plan (AAP). This plan outlines the scope of the assessment requirements, describes the approach used to develop the AAP, assigns specific assessment responsibilities, describes the assessment process, and schedules the assessment topics throughout this Calendar Year (CY), in accordance with the Integrated Performance Assurance Manual (IPAM).

1.1 PURPOSE

The AAP provides guidance to NMSP personnel to improve contractor oversight and assure compliance with Department of Energy (DOE) requirements. The AAP is a management tool provided to assign and schedule all required NMSP assessments. Oversight of the contractor's self-assessment program is an integral part of the NMSP Technical Assessment Program.

1.2 SCOPE

This AAP is a plan for the performance of site level, division level and facility-specific assessments and evaluations done in accordance with the requirements of the following Savannah River Implementing Procedures and Manuals:

- SRIP 400, Chapter 430.1 (latest revision), Facility Representative Program
- SRIP 400, Chapter 421.2 DOE-SR Safety System Oversight
- SRIP 400, Chapter 421.1 Nuclear Safety Oversight
- SRM 226-1.1C, Integrated Performance Assurance Manual (IPAM)
- SRM 300.1.1B, DOE-SR Functions, Responsibilities, and Authorities Procedure

1.3 APPROACH

In accordance with the Integrated Safety Management System (ISMS) process, this AAP incorporates lessons learned from the previous year. Programmatic, operations, or other assessments that duplicate assessments should be avoided to minimize redundancy. The AAP considers current and future missions and tailors technical assessments accordingly. The AMNMSP will solicit feedback from both contributing and supporting organizations to improve assessments. Assessments will be scheduled and tracked using the electronic assessment reporting system. Required assessments will be loaded into the electronic assessment reporting system as planned assessments. Technical assessments will be a mixture of planned and reactive. Reactive assessments will be documented in the electronic assessment reporting system. When appropriate, reactive assessments may be substituted for planned assessments.

2.0 ACRONYMS AND DEFINITIONS

2.1 ACRONYMS

AA	Authorization Agreement
AAP	Annual Assessment Plan
AB	Authorization Basis

AMNMSP	Assistant Manager for Nuclear Materials Stabilization Project
ANSI/ANS	American National Standards Institute / American Nuclear Society
APAP	Annual Performance Assurance Plan
CCSP	Contractor Criticality Safety Program
CE	Criticality Engineer
CLAB	F/H Analytical Laboratory
CSP	Criticality Safety Program
CSS	Criticality Safety Staff
CY	Calendar Year
DCA	Double Contingency Analysis
DCP	Double Contingency Principle
DOE	Department of Energy
DOE O	Department of Energy Order
DOE-SR	Department of Energy - Savannah River Operations Office
DOE-STD	Department of Energy Standard
ECATS	Executive Commitment Tracking System
EQMD	Environmental Quality Management Division
EVMS	Earned Value Management System
FAMS	F-Area Materials Storage
FCC	F-Canyon Complex
FE	Facility Engineer
FR	Facility Representative
H-OF	H-Canyon Outside Facilities
HPICF	Health Physics Instrument Calibration Facility
IPAM	Integrated Performance Assurance Manual
ISASS	Integrated Safety Assessment and Self-Assessment Schedule
LOI	Lines of Inquiry
M&O	Management and Operating
MAR	Monthly Assessment Report
MRB	Management Review Board
MW	Management Walkthrough
NCS	Nuclear Criticality Safety
NCSE	Nuclear Criticality Safety Evaluation
NMED	Nuclear Materials Engineering Division
NMOD	Nuclear Materials Operations Division
NMPD	Nuclear Materials Programs Division
NSDS	Nuclear Safety Data Sheet
OAO	Operations Activity Observation
OSQA	Office of Safety and Quality Assurance
PAD	Performance Assurance Division
PAR	Periodic Assessment Report
RBOF	Receiving Basin for Offsite Fuels
RMBL	Radiological Monitoring and Bioassay Laboratory
SAC	Specific Administrative Control
SC	Safety Class
SER	Safety Evaluation Report
USNF	Used Spent Nuclear Fuel

SNM	Spent Nuclear Material
SRIP	Savannah River Implementing Procedure
SS	Safety Significance
SSCs	Structures, Systems, and Components
SSO	Safety System Oversight
SWMF	Solid Waste Management Facility
SWPF	Salt Waste Processing Facility
TPAP	Triennial Performance Assurance Plan
WBCF	Whole Body Count Facility
YTD	Year to Date

2.2 DEFINITIONS

Annual Performance Assurance Plan (APAP) - A plan that schedules core assessments, independent assessments of DOE-SR performance, and DOE-SR-wide self-assessments and identifies focus areas for operational awareness activities for the year.

Assessment Results - the information and conclusions obtained from an assessment, data collection, and analysis includes a categorization of identified issues:

Concern - An indication of a programmatic breakdown or widespread problem supported by several findings or an adverse trend.

Deficiency - An inadequacy or variance of an activity from established requirements, policies, procedures, standards, criteria, or expectations requiring corrective action.

Observation - An identified aspect of performance that is compliant but in need of quality or productivity improvement.

Good Practice - An activity that is performed in a manner warranting emulation, commendation, or application to other problems or facilities.

External Assessments - Reviews that are performed by entities external to DOE-SR.

Internal Assessments - Reviews performed by DOE-SR or support service contractors tasked to perform reviews for DOE-SR. Internal assessments are real-time reviews, either scheduled or unscheduled, of an activity, facility or process against DOE requirements and/or expectations. Internal assessments may be conducted by an individual or a team.

Operation Awareness Activities - Those activities performed by DOE-SR personnel or their support service contractors to maintain cognizance of overall facility or activity status.

Self-Assessment – A review conducted by an organization on itself.

Triennial Performance Assurance Plan (TPAP) - A three-year rolling planning document that includes the current APAP as the first year and serves as the DOE-SR instrument for generating future APAPs.

3.0 RESPONSIBILITIES

3.1 General

AMNMSP provides technical oversight and assessment services, executing line management authority for operations, engineering and programmatic support of FCC, FAMS, H-Canyon, H-OF, HB-Line, C-Area, K-Area, L-Area, CLAB, RMBL, WBCF, RBOF, and the HPICF.

3.2 Oversight

Oversight assessments shall be performed by AMNMSP staff as directed by their supervisor and the results of these assessments will be documented in the electronic assessment reporting system.

Oversight will be accomplished through facility visits, management walkthroughs, programmatic assessments, reactive assessments/project reviews or other operational awareness assessments as determined by the AMNMSP.

NMSP Facility Management Walkthroughs will be performed by GS-15 (and above) personnel and coordinated by the AMNMSP Management Walkthrough Coordinator per the Savannah River IPAM. Facility walkthroughs of Low Hazardous Facilities may be completed by GS-14 (and above) personnel.

Any significant deficiencies that are found will be transmitted to the Division Director. The Division Director, in consultation with the AMNMSP, will determine if the issue will be entered into the electronic assessment reporting system only or require additional action by AMNMSP and the Operating Contractor and may be included in the monthly feedback report and/or the MAR/PAR.

Internal assessments are in accordance with the IPAM, this AAP and the APAP.

3.2.1 Specific responsibilities include:

AMNMSP

The AMNMSP and Deputy Manager have overall responsibility for the NMSP AAP, and support execution of the NMSP AAP by ensuring sufficient resources and management attention is directed to successful completion of all required activities. The AMNMSP periodically monitors AAP execution performance, provides redirection of effort or reallocation of resources as necessary, and participates in the management walkthrough program. Additionally, the AMNMSP and Deputy Manager provide support as needed to assist in other DOE-SR assessment activities, criticality safety oversight support for SRS and site DOE-SR maintenance program support. Finally, they provide support and participate in site-level programs and committees that direct and evaluate DOE-SR assessment performance and results.

NMOD

Operations Division is responsible for Facility Representative assessments to be performed in each facility under the AMNMSP's responsibility.

NMED

Engineering Division responsibilities include oversight of the facility authorization basis, specific administrative controls, safety system oversight, and engineering. In addition, the NMED has

responsibility for the site criticality safety program and the site maintenance program. Technical assessments will be performed for each nuclear facility under AMNMSP's responsibility.

NMPD

Programs Division is responsible for the oversight of financial, schedule, scope and quality assessments. In addition NMPD reviews and approves the Transportation Safety Document and any Onsite Safety Assessments.

Managers (GS-15 and above)

NMSP Division Directors ensure their division's assessments as delineated in this AAP are completed on time and technically adequate. Any identified deficiencies are monitored to adequate closure. The Division Directors may also assign reactive assessments where conditions or circumstances warrant.

NMSP Management (GS-15 and above) will participate in management walkthroughs. The management walkthrough goal is four (4) hours per manager per month for CY12. Management will periodically review completed management walkthrough information to ensure facilities are being assessed.

3.3 AMNMSP SELF-ASSESSMENTS AND INDEPENDENT ASSESSMENTS

3.3.1 Self Assessments: The purpose of the AMNMSP self-assessment program is to establish and implement an effective assessment program in accordance with the IPAM and guidance from the PAD.

The AMNMSP self-assessment program is intended to identify and resolve systemic and cultural organizational issues and problems that may contribute to management expectations not being met. These are internal assessments that generate information on business, quality, operational, and technical performance of NMSP. The PAD will periodically provide analysis of self-assessment results from all DOE-SR organizations. Self-assessment results will be documented in the electronic assessment reporting system and actions in the ECATS.

3.3.2 Independent Assessments: Independent assessments are incorporated into the DOE-SR TPAP.

During CY12, NMSP will identify independent assessment topics for PAD for their consideration per the IPAM. In addition, NMSP will assist the PAD, as needed, in conducting an annual independent assessment of NMSP's organizational self-assessments.

4.0 PROCESS

The following sections describe the process for programmatic, technical, facility representative, and operations assessments:

4.1 ASSESSMENTS

4.1.1 Internal technical assessments will generally be reactive in order to address trends or changing conditions. Special assessments are performed, as needed, based on the AMNMSP direction. All organizational personnel are encouraged to identify assessment topics and lines of inquiry to support emergent programmatic or operational needs. DOE requirements in the assessment areas of Environmental Protection, Research and Development, Experimental Activities, and Safeguards and Security are satisfied by designated Site program organizations in accordance with the IPAM.

Operational, programmatic or project assessments may be scheduled when deemed necessary to support mission requirements, when trends warrant or as directed by the AMNMSP.

4.1.2 NMSP relies on matrix support organizations to perform technical assessments in select assessment areas such as Environmental Protection.

4.1.3 Assessment results are documented in the electronic assessment reporting system per the IPAM and significant results communicated to the M&O contractor during NMSP feedback meetings. Assessments including deficiencies, observations, or good practices for proposed inclusion in the MAR shall be included in the electronic assessment reporting system. The appropriate supervisor reviews the report, modifies the Assessment Summary Statement, as deemed necessary, and determines whether the report should be included in the MAR/PAR and/or forwarded to the MRB for tracking and trending. Only reports that have supervisory approval by the deadline are included in the draft MAR/PAR.

4.1.4 Reactive site-level assessments may be performed to focus on emerging problem areas. These assessments will be performed, documented, and reported in accordance with the process described above. If it is determined to be reasonable, these reactive assessments may be substituted for planned assessments.

4.2 NMOD ASSESSMENTS

4.2.1 The FR for each NMSP facility area develops a periodic facility-specific FR assessment schedule based on the facility activity levels and requirements identified in Attachments 2 and 3. The NMOD Director will ensure facility assessments are properly balanced to ensure effective contractor oversight. The FR performs assigned assessments in accordance with SRIP 400, Chapter 430.1 (latest revision).

4.2.2 The FR will discuss areas of concern with the M&O contractor's facility manager on a regular basis. The FR will also inform the Division Director, NMOD, of any significant assessment results and discuss, if appropriate, during the daily morning phone call.

4.2.3 The FR documents the assessment results in the electronic assessment reporting system in a timely manner (see 4.1.3). Electronic submission of assessment results is sufficient. Assessment deficiencies are documented and tracked on the electronic assessment reporting system.

4.2.4 The FRs will discuss any significant issues with facility management as they are identified or upon completion of an assessment. Discussion of assessment results with the M&O contractor are also done prior to monthly feedback meetings held with the M&O contractor management. Finally, significant assessment deficiencies and observations may be formally transmitted to the M&O contractor through the MAR/PAR process and/or letter (see 4.2.3).

4.2.5 The FR performs supplemental or reactive FR assessments, as necessary. These assessments will be conducted, documented, and reported in accordance with the process described above in 4.1.3 and 4.2.4.

4.3 NMED ASSESSMENTS

4.3.1 SSO assessments will include an SSO evaluation of individual safety-related and important-to-safety SSCs, and the contractor's System Engineering Program in accordance with the IPAM.

4.3.2 Assessments will be conducted on new or modified AB documents, including response plans. On a graded approach, reviews may be done of supporting basis which may include NSDSs, NCSEs, DCAs, supporting calculations, analysis, or other basis documents used in AB documents. Such documents include those that describe the facility, establish SSC operating parameters, identify hazards, establish controls and document the adequacy of AB documentation to ensure reasonable assurance of safety. An SER will be written for AB documents approved by the DOE-SR manager.

4.3.3 The NMED FEs will perform assessments of SAC implementation for new SACs.

4.3.4 SRM 300.1.1B, "DOE-SR Functions, Responsibilities, and Authorities Procedure," assigns the primary responsibility of the Site Criticality Safety Program direction and oversight to the NMSP organization. Accordingly, this plan includes the assessment requirements to discharge that responsibility for all DOE-SR operations with criticality safety concerns.

4.3.5 Assessments of Contractor CSP revisions will be performed to ensure that appropriate requirements are satisfied as discussed in Attachment 6.Maintenance assessments of the contractor and maintenance self-assessments of DOE-SR maintenance oversight will be conducted on a three-year cycle and will use DOE Order 433.1B as a basis for the assessments. These may include maintenance assessments, maintenance self-assessments and evaluations of DOE-SR maintenance assessment results.

4.3.6 The NMED Staff will discuss any significant issues with facility personnel as they are identified or upon completion of an assessment. Discussion of assessment results with the M&O contractor are also done prior to monthly feedback meetings held with the M&O contractor management. Finally, significant assessment deficiencies and observations may be formally transmitted to the M&O contractor through the MRB and/or letter.

4.3.7 As a courtesy SSOs and FEs should notify the cognizant Facility Representative prior to performing assessments in their assigned facilities and also notify them of any issues identified during the assessment. FRs are to be notified immediately of any conditions that are immediately hazardous or that may affect operability of SC or SS equipment.

4.4 NMPD ASSESSMENTS

The NMPD Staff will discuss any significant issues with facility personnel as they are identified or upon completion of an assessment. Discussion of assessment results with the M&O contractor are also done prior to monthly feedback meetings held with the M&O contractor management. Significant assessment deficiencies and observations may be formally transmitted to the M&O contractor through the MRB and/or letter. Assessments of the Transportation Safety Document or Onsite Safety Assessments will be scheduled as needed to evaluate the contractor's Transportation Safety Program as outlined in DOE Order 460.1C.

4.5 PERFORMANCE INDICATORS

NMSP will use performance indicators as required in the IPAM, plus additional performance indicators specified by the AMNMSP. AMNMSP identifies specific performance indicators to monitor scheduled and some unscheduled activities. Division Directors report on performance indicators. A Technical Assessment example is found in Attachment 8.

5.0 SCHEDULED ACTIVITIES

The following sections describe the activities involved in issuing the AAP, performing assessments, changing the schedule, and scheduling assessments:

5.1 AAP APPROVAL AND ISSUANCE

5.1.1 AMNMSP develops a target schedule to execute the AAP using the following:

- Baseline item information.
- Performance status of the current AAP.
- Safety significance of each item.
- Pace, complexity and hazards of facility operations.
- Necessary resources.
- Technical assessment scheduling inputs.

5.1.2 AMNMSP schedules assessment activities on an annual basis for each facility by the cognizant division.

5.1.3 The AMNMSP issues the AAP for implementation.

5.2 PERFORMANCE OF SCHEDULED ACTIVITIES

5.2.1 The NMSP Division Directors ensure that scheduled items are performed in a timely manner in accordance with department regulations.

5.2.2 The NMED AAP lead (or designee) investigates and resolves delays resulting from untimely support activities performed by matrix organizations.

5.3 CHANGES TO ASSESSMENT SCHEDULES

5.3.1 AMNMSP revises the assessment schedule when the AAP schedule needs adjustments due to changes in requirements, schedules and/or resource limitations.

5.3.2 AMNMSP and Division Directors review AAP revisions and update the detailed implementation schedule. Division Directors indicate to AMNMSP any circumstances preventing the accomplishment of scheduled activities.

5.3.3 When needed, NMSP Division personnel should recommend changes to the AAP through the NMED AAP lead.

6.0 ATTACHMENTS

6.1 Attachments are used to define both the types and frequencies of NMSP assessments. Attachments 3-7 provide assessment scheduling information. Attachments 1, 2, and 8 provide assessment source, tracking, and documenting information. Attachment 1 provides the bases for determining FR coverage and supports determination of the performance frequencies in Attachment 3.

Attachment 1	Facility Representative Coverage
Attachment 2	NMSP Facility Representative Assessments
Attachment 3	Facility Representative Assessment Schedule
Attachment 4	NMED Assessment Activities for CY12
Attachment 5	NMPD Assessment Activities for CY12
Attachment 6	Criticality Safety Assessment Activities for CY12
Attachment 7	NMSP Self-Assessment Schedule for CY12
Attachment 8	NMSP Staff Technical Assessment Activities Tracking for CY12

Attachment 1

Facility Representative Coverage for AMNMSP Facilities

Nuclear Facility	Hazard Category	Activity Level	Base Coverage from DOE-STD.1063-2006	Adjusted Base Coverage	Justification for Base Coverage Adjustment
F-Area					
F-Canyon	2	High	Frequent	Continual	ARRA and Reactivation of some Systems, for TRU repackaging
FB-Line	2	Low	Occasional	Seldom	Deactivated
FAMS	2	Low	Occasional	Seldom	Facility Deinventory
F-Outside	2	Low	Occasional	Seldom	Deactivated Activities
H-Area					
H-Canyon and H-Outside Facilities	2	High	Frequent	Continual	Age of facility, Complexity of operations
HB-Line	2	High	Frequent	Continual	Age of facility, Complexity of operations
Nuclear Materials Receipt and Storage					
K-Area	2	High	Frequent	Continual	SNM Operations
L-Area	2	High	Frequent	Frequent	SNF Operation
C-Area	2	Low	Occasional	Seldom	Inactive Facility
Laboratories					
RMBL	Non-nuclear low hazard chemical	Medium	N/A	Seldom	Bioassay and Environmental Sampling
HPICF	Other Industrial	Medium	N/A	Seldom	Radiation Instrument Calibration
F/H Analytical Laboratories	2	High	Frequent	Frequent	Age of facility, SNM Analysis

Attachment 2

AMNMSP FR Assessments

FR assessments, listed below, are performed to meet requirements of DOE Order 5480.19 in accordance with DOE-STD-1063-2006, April 2006 and DOE SR SRIP430.1. The actual schedule frequency is listed in Attachment 3.

MN-01 *	Maintenance Activity Observation
OP-02	Daily Facility Tour and Facility Status Observation
OP-03 **	Safety System Operability Review
OP-04	Operations Activity Observation
OP-05 **	Surveillance Activity Observation
WPC-04 *	Work Planning and Control Activity Definition and Hazard Identification
WPC-05 *	Work Planning and Control Process – Work Control Documents
WPC-06 *	Work Planning and Control Oversight – Work Performance

* NOTE: MN-01 and WPC-04 - WPC-06 may be alternated. A minimum of one assessment should be performed at the specified periodicity.

** NOTE: OP-03 and OP-05 may be alternated. A minimum of one assessment should be performed at the specified periodicity.

Attachment 3

AMNMSP FR Assessment Schedule for CY12

Area/Facility	Assessment	Frequency	Assessments per year	Notes
F-Area (FCC, FAMS or CLAB)	OP-02	Weekly	52	Field Presence as needed to oversee ARRA activities
	OP-03/05	Quarterly	4	
	OP-04	Monthly	12	
	MN-01/WPC-04 – WPC-06	Monthly	12	
Reactors (K or L)	OP-02	Weekly	52	C and RBOF Field Presence as needed.
	OP-03/05	Semi-Annually	2	
	OP-04	Monthly	12	
	MN-01/ WPC-04 – WPC-06	Monthly	12	
H-Canyon/H-OF	OP-02	Weekly	52	
	OP-03/05	Quarterly	4	
	OP-04	Monthly	12	
	MN-01/ WPC-04 – WPC-06	Monthly	12	
HB-Line	OP-02	Weekly	52	
	OP-03/05	Quarterly	4	
	OP-04	Monthly	12	
	MN-01/ WPC-04 – WPC-06	Monthly	12	
B-Area Labs (RMBL, HPICF, or WBCF)	OP-02	Monthly	12	Field Presence Not Daily
	OP-03/05	Reactive only	0	
	OP-04	Reactive only	0	
	MN-01/ WPC-04 – WPC-06	Reactive only	0	
			330	Total Planned

Attachment 4

NMED Assessment Activities for CY12

NMED Engineers perform assessments of safety-related and important-to-safety SSCs as follows:

VS01 - A planned assessment on an individual safety-related or important-to-safety SSC, or a grouping of like SSCs such as alarms or interlocks.

VS02 - Management self-assessment of completed safety-related or important-to-safety SSC assessments.

VS03 – A safety software quality assurance assessment

VS05 - An assessment of a safety-related or important-to-safety SSC emergent issue.

Independent assessment evaluating the implementation of a SAC may be conducted by the DOE-SR FE after approval of a facility DSA/TSR revision that establishes the SAC. The table in Attachment 8 contains an example detailing how the assessments will be tracked.

Facility FE/SSO Assessments	**Jan-Mar**	**Apr-Jun**	**Jul-Sep**	**Oct-Dec**
K-Area	0	1	0	1
L-Area	0	1	0	0
C-Area (No VSS, 1 SAC)*	0	0	0	0
F-Canyon Complex (FCC)	0	0	0	0
F/H-Lab (CLAB)	0	0	0	1
FAMS	0	0	1	0
H-Canyon	2	2	1	2
HB-Line	1	0	1	0
Programmatic Assessments				
Site Maintenance	0	1	0	1
Fire Protection	0	1	0	1
Engineering Assessments				
TSR Safety Management Programs	0	0	0	1
System Engineer Program – System Performance Monitoring	0	0	0	1
NIM's	0	0	1	0

***Review for industrial safety (electrical supply, ventilation, etc) every three (3) to five (5) years and was last Performed in Fiscal Year 2010**

Attachment 5

NMPD Assessment Activities for CY12

NMPD Assessments	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
H-Area Quality Assessment (NMPD)	0	0	0	1
L-Area Quality Assessment (NMPD)	0	0	0	1
K-Area Quality Assessment (NMPD)	0	0	0	1
EVMS Program Assessment (NMPD)	1	1	1	1
Risk Management (NMPD)	0	0	0	1
Funds Management (NMPD)	1	1	1	1
Schedule Management (NMPD)	1	1	1	1
Transportation Safety Document (NMPD)	0	1	0	0
Onsite Safety Assessments (NMPD)	3	1	0	0

Attachment 6

DOE-STD-1158 provides "a self-assessment tool for review of DOE Contractor criticality safety programs" (CCSP) and recommends management establish a means of monitoring and obtaining feedback on the overall effectiveness of the CSP. Additionally, DOE O 420.1B includes a variety of general and specific requirements that must be met by the contractor CSP and the NCSEs performed in accordance with that program. DOE-SR CSS will perform a variety of reviews and assessments throughout CY12 to ensure that these requirements are appropriately satisfied.

DOE-SR CSS will review CSP Description Document (CSPDD) revisions as they are provided by the Contractor during CY12. Additionally, safety basis and associated support documentation will be reviewed for SR facilities having the potential for criticality event occurrence. The depth of these reviews will reflect the availability of qualified criticality safety staff.

DOE-STD-1158 identifies a variety of key elements which characterize an effective CSP. Regular assessment of these elements is an important part of DOE-SR CSS responsibilities. While CSPDD and safety basis related reviews are expected to require the majority of current DOE-SR CSS effort, observational assessments that may include facility walkthroughs, operations observations, readiness assessments, and CSP activity attendance, will be performed to the extent practical. Fulfillment of the DOE-STD-1158 recommendation to address all CSP criteria "in a facility assessment activity at least once every three years" is achieved through the Contractor Criticality Safety Self-Assessment Program. During CY12, DOE-CSS will perform an assessment of that program to ensure that it is functioning effectively, accomplishing the objectives of DOE-STD-1158 and ANSI/ANS 8.19.

Finally, DOE-SR CSS will conduct a Self-Assessment of the DOE-SR CSP in CY12 in accordance with the requirement of DOE O 420.1B. The timing of this assessment is selected to provide timely input into the closeout of the year's assessment plan and the development of the next year's assessment plan. Format and content are selected to support SR submission to the DOE CSP Annual Report to the DNFSB.

CSP Assessments Goals for CY12	
Activity	**Periodicity**
CSPDD Review	as submitted
Facility Safety Basis Document Review	as submitted
Observational Assessment	as practical
CCSP Self-Assessment Program Assessment	1
DOE-SR CSP Self-Assessment	1

Attachment 7

AMNMSP Assessment Schedule for CY12

The assessments listed below are to meet the assessment commitments identified in the DOE-SR ISASS) and the APAP for 2012.

Core Assessment of Event Reporting (ORPS, PAAA, Trending Analysis) due March 31, 2012

Core Assessment on Performance Measures due June 30, 2012

Independent Assessment DOE-SR Facility Representative (FR) Program due August 31, 2012

NDA Measurements of Potential Fissile Material Accumulations in HB-Line due June 29, 2012

Self-Assessment AMNMSP Continuing Training due February 29, 2012

Self-Assessment (DOE-SR) of Criticality Safety Resource Allocation due December 31, 2012

Attachment 8

Assessment Type	Requirement	2012 Quarterly * Performance (Required Assessments)				YTD Performance (Required + Reactive)			Safety System Oversight (SSO) Person Responsible
		Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Required Completed	Reactive Completed	YTD Completed	
Facilities									
K-Area	2	0	1	0	1				
L-Area	1	0	1	0	0				
C-Area	0	0	0	0	0				
F-Canyon Complex (FCC)	0	0	0	0	0				
FH-Labs (CLAB)	1	0	0	0	1				
FAMS	1	0	0	1	0				
H-Canyon	7	2	2	1	2				
HB-Line	2	1	0	1	0				
Reactive	0	0	0	0	0				
Programmatic Assessments									
Site Maintenance	2	0	1	0	1				
Fire Protection (235-F)	2	0	1	0	1				
Engineering Assessments									
TRS Safety Management Program	1	0	0	0	1				
Sys. Eng. Pgm – Sys. Perf. Mon.	1	0	0	0	1				
Nuclear Incident Monitors	1	0	0	1	0				
NMPD Assessments									
H-Area Quality Assessment	1	0	0	0	1				
L-Area Quality Assessment	1	0	0	0	1				
K-Area Quality Assessment	1	0	0	0	1				
EVMS Performance Assessment	4	1	1	1	1				
Risk Management Assessment	1	0	0	0	1				
Funds Management Assessment	4	1	1	1	1				
Schedule Management Assessment	4	1	1	1	1				
Transportation Safety Document Assessment	1	0	1	0	0				
Onsite Safety Assessments	4	3	1	0	0				
Total	**42**	**9**	**11**	**7**	**15**				