

***Assessment Report
Sandia National Laboratories
Fuel Cycle Technologies Quality
Assurance
Evaluation of FY15 SNL FCT
M2 Milestone Deliverables***

Fuel Cycle Research & Development

***Prepared for
U.S. Department of Energy
Used Fuel Disposition Campaign
Gordon Appel, Sandia National
Laboratories
May 17, 2016
FCRD-PAC-2016-000681***



DISCLAIMER

This information was prepared as an account of work sponsored by an agency of the U.S. Government. Neither the U.S. Government nor any agency thereof, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness, of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. References herein to any specific commercial product, process, or service by trade name, trade mark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the U.S. Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the U.S. Government or any agency thereof.



Sandia National Laboratories

Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.

Assessment Report
Sandia National Laboratories
Fuel Cycle Technologies Quality Assurance
Evaluation of FY15 SNL FCT M2 Milestone Deliverables

Approvals:

Manager

Kevin McMahon

Electronic Authentication via email 5/17/2016

Signature

Date

Lead Assessor:

Gordon Appel

Electronic Authentication via email 5/17/2016

Signature

Date

Note: Authentication of the cover sheet for this assessment may be accomplished by transmittal of the signed cover sheet or acknowledging the action via Sandia email, or uploading the documentation to a controlled location on a Sandia network by the authenticator, and marked accordingly.

Assessment Report Sandia National Laboratories Fuel Cycle Technologies Quality Assurance
Evaluation of FY15 SNL FCT M2 Milestone Deliverables

Assessment Report
Sandia National Laboratories
Fuel Cycle Technologies Quality Assurance
Evaluation of FY15 SNL FCT M2 Milestone Deliverables

1. Background	5
2. Assessment Purpose and Scope	5
3. Assessment Summary	5
4. Good Practices Observed	6
5. Milestone Deliverable Requirements	6
6. Assessment Approach	6
7. Assessment Approach	7
8. Assessment of FY15 M2 milestone deliverables	7
8.1 Is there a FCT Appendix E Document Cover Sheet or Completed PICS:NE Deliverable Form and are they Correct?	7
8.2 Does the FCT Document Cover Sheet (or PICS:NE Deliverable Form) Indicate the Correct Review?	7
8.3 Is the Milestone Deliverable in FCT-DMS?	7
8.4 Does the Deliverable have a SAND Number?	7
9. Corrective Actions	7
10. Refresher Guidance for current Work Package Managers	8
11. Observations	8
11.1 PICS:NE Deliverable Form	8
11.2 Upload to FCT-DMS of formally reviewed Milestone Deliverables	8
12. Typical PICS:NE Deliverable Form	9
13. Attachment 1 – FY 15 M2 Milestones	10
14. Attachment 2 – FY 15 Milestone Assessment Plan	11
15. Attachment 3 – Concurrence Documentation	14

1. Background

Sandia National Laboratories (SNL) Fuel Cycle Technologies (FCT) program activities are conducted in accordance with FCT Quality Assurance Program Document (FCT-QAPD)¹ requirements. The FCT-QAPD interfaces with SNL approved Quality Assurance Program Description (SNL-QAPD)² as explained in the Sandia National Laboratories QA Program Interface Document for FCT Activities³ (Interface Document).

As part of the annual work planning process, FCT work package managers designate a Quality Rigor Level (QRL) for each work package. This designation is concurred in by the SNL FCT QA Point of Contact (POC). The QRLs (QRL 1, 2, 3, and Lab/Participant), and the review requirements for each QRL are specified in the FCT-QAPD and the Interface Document section 10. Sections 11 and 12 of the Interface Document specify a milestone deliverable review and submittal requirements. Upon completion, SNL FCT milestone deliverables are uploaded to the Performance Information Collection System-Nuclear Energy (PICS:NE).

Deliverables uploaded to PICS:NE are automatically copied to the FCT Document Management System (FCT-DMS) in conformance with the FCT Records Management Plan⁴, because PICS:NE is not intended for document management. Note that Sandia's Enterprise Information Management Services (EIMS), is the records management system for SNL documents, not FCT-DMS.

2. Assessment Purpose and Scope

The assessment plan (Attachment 2) describes the assessment approach to evaluate SNL's FY15 FCT Level 2 (M2) milestone deliverable's compliance with program QA requirements, including the SNL document Review and Approval (R&A) requirements.

3. Assessment Summary

The following summarizes the assessment results:

- There were 13 M2 deliverables for FY15
(14 rows in PICS:NE data, one deliverable (FCRD-UFD-2015-000124) has two volumes)
- Two deliverables were not available for assessment,
(PICS:NE deliverable form indicated they were OUO/Classified (MPACT))
- Three of the remaining eleven were marked not unclassified, unlimited release (UUR)
(Two received only Programmatic Review (DBFT), the other was formally reviewed)
- 100% (8/8) of the UUR deliverables have a correctly completed FCT QAPD Appendix E sheet or a PICS:NE Deliverable Form (see typical PICS:NE Deliverable Form below).
- No instances were noted for any of the deliverables where the review type was inappropriate with respect to the QRL.
- 100% (8/8) of the UUR deliverables were in FCT-DMS

¹Fuel Cycle Technologies Quality Assurance Program Document, Revision 2, December 2012

²Sandia's Quality Assurance Program Description, SNL-QAPD-2015-05-29, Revision 4.2, SAND2015-4512F.

³Sandia National Laboratories QA Program Interface Document for FCT Activities, Revision 4, September 2015

⁴Records Management Plan for Fuel Cycle Technologies, FCRD-TIO-2011-000168, Revision 4, November 2012.

- 100% (8/8) have a SAND number on a Sandia copy of the document.
- 50% (4/8) have a SAND number on the copy of the document in FCT-DMS

4. Good Practices Observed

Several good practices were observed by the deliverable assessment:

- Putting Milestone # or FCRD # in Filename of the upload to PICS:NE.
- Entering SAND # prominently on cover page.
- Entering UUR status prominently on cover page.
- Including a Revision history in final document submittal, explaining relationships of contributing products from other Work Packages, as appropriate.

5. Milestone Deliverable Requirements

The assessment evaluated compliance with the requirements in Table 1 for SNL FY15 M2 milestone deliverables. (Note: there were no QRL1 deliverables in FY15.)

Table 1 Requirements Matrix

Requirement
Is a FCT Appendix E Document Cover Sheet ⁵ or PICS:NE Deliverable Form included?
FCT Document Cover Sheet (or PICS:NE Deliverable Form) indicates appropriate Review ⁶ ?
Deliverables is uploaded in FCT-DMS ⁷ ?
Deliverable in FCT-DMS displays SNL R&A number ⁵ ?

6. Assessment Approach

The assigned QRL and associated milestone metadata was gathered from Project Information Collection System for Nuclear Energy (PICS:NE) as shown in Table 2.

Table 2 Metadata sources

Metadata	FY15 source
Milestone deliverables metadata including Milestone ID Number and the associated QRL	PICS:NE Field Report 'Milestone Activity Detail'
Milestone ownership metadata (Milestone/Activity Title, Work Package Manager, Control Account Manager, and National Technical Director)	PICS:NE Field Report 'Deliverable Approvals', (based on the deliverable Milestone ID Number)

⁵ FCT QAPD Section 6.10 and Interface Document Section 11

⁶ FCT QAPD Section 3 and Interface Document Table 2

⁷ FCT Records Management Plan

STI and OSTI information	PICS:NE Field Report 'Deliverable Approvals', (based on the deliverable Milestone ID Number)
--------------------------	--

PICS:NE and FCT-DMS metadata was compiled in a spreadsheet, which was used to record the results for the milestone deliverable assessment. The spreadsheet for this FY15 M2 assessment is included as Attachment 1.

7. Assessment Approach

For each FY15 milestone deliverable, the following was checked in PICS:NE and the FCT-DMS and the results recorded in the spreadsheet.

- Does the milestone deliverable include an authenticated (appropriately signed) FCT QAPD Appendix E sheet *or properly completed PICS:NE Deliverable Form*?
- Is the Cover Sheet or PICS: NE Deliverable Form Correct?
- Is the review indicated appropriate with respect to the assigned QRL?
- Is the milestone deliverable in FCT-DMS?
- Is the milestone deliverable in FCT-DMS marked with the appropriate SNL R&A number?

8. Assessment of FY15 M2 milestone deliverables

The results of the assessment are described below. All 13 FY15 M2 deliverables were evaluated for the above elements (Attachment 1). However this discussion addresses only the eight UUR deliverables, because there are multiple reasons why UCI deliverables may not meet one or more of the requirements listed above.

8.1 Is there a FCT Appendix E Document Cover Sheet or Completed PICS:NE Deliverable Form and are they Correct?

Of the eight deliverable documents in this assessment, all had a correct FCT QAPD Appendix E sheet and/or a PICS:NE Deliverable Form.

8.2 Does the FCT Document Cover Sheet (or PICS:NE Deliverable Form) Indicate the Correct Review?

Of the eight deliverable documents in this assessment all were designated QRL-3. All indicated they had been inappropriately reviewed (Technical Review).

8.3 Is the Milestone Deliverable in FCT-DMS?

Of the eight deliverable documents in this assessment, all were found in FCT-DMS.

8.4 Does the Deliverable have a SAND Number?

Of the eight deliverable documents in this assessment, all were found to have been formally reviewed and were assigned SAND numbers. These documents were retained in department files. Of the eight deliverable documents in FCT-DMS, four (50%) had SAND numbers.

9. Corrective Actions

There are no corrective actions necessary based on the assessment.

No corrective action recommendations are made to update PICS:NE or FCT-DMS with corrected metadata and deliverables identified in this assessment, because neither PICS:NE or FCT-DMS are the records management system of record for these documents.

10. Refresher Guidance for current Work Package Managers

An email will be transmitted to all Sandia FCT Work Package Managers (WPMs) clarifying the important elements requiring their attention when submitting Milestone Deliverables to PICS:NE and completion of the PICS:NE Deliverable Form, based on the outcomes of this assessment. The refresher should urge WPMs to complete the FCT QAPD Appendix E Document Cover sheet, and include it in their milestone deliverables as it is the only lasting evidence of the required review.

11. Observations

11.1 PICS:NE Deliverable Form

It was thought that having the PICS:NE Deliverable Form would be helpful because it could relieve authors from including the FCT QAPD Appendix E sheet as part of the deliverable document. This was allowable after the advent of the PICS:NE Deliverable Form (mid-2012), and was indeed the principle purpose of the form. The utility of including the PICS:NE Deliverable Form is questionable. Most authors include the FCT QAPD Appendix E sheet as part of the deliverable document, and particular inattention is evident with respect to completeness/correctness of the PICS:NE Deliverable Form. Several factors contributed to incorrect or incomplete Deliverable Forms, including failure to: check the correct 'Category' radio button, check the box for DOE Order 414.1, check one of the Technical Review radio buttons, and identify Technical Reviewers.

11.2 Upload to FCT-DMS of formally reviewed Milestone Deliverables

For Fifty percent of the deliverables, a formally reviewed version of the documents could be transmitted to FCT-DMS for inclusion in FCT-DMS. However, there is no readily apparent reason to do so as Sandia's Enterprise Information Management Services (EIMS), is the records management system for SNL documents, not FCT-DMS.

Assessment Report Sandia National Laboratories Fuel Cycle Technologies Quality Assurance
Evaluation of FY15 SNL FCT M2 Milestone Deliverables

12. Typical PICS:NE Deliverable Form

Reporting Status	Deliverable List	Deliverable Form		Releasing Official	
Complete					
Milestone Number	Milestone Title	Milestone Level	STI		
M2FT-13SN0804031	Reference Disposal Concepts: Description and Thermal Analysis	M2			
Work Package Number	Work Package Title	WBS Level 3 Number	WBS Level 3 Title		
FT-13SN080403	DR Thermal Load Management & Design Concepts - SNL	1.02.08.04	DR Thermal Load Management & Design Concepts		
Date Completed	Narrative				
11/15/2012	Submitted peer reviewed revision of the summary report originally issued in August. Note that this deliverable is QRL 3, and the QRL 2 designation on this form is in error.				
Site	Document Author/Creator	Document Owner			
Sandia National Laboratories					
CUI Type	Category		Keywords		
<input checked="" type="radio"/> None <input type="radio"/> OUO <input type="radio"/> AT <input type="radio"/> Other	<input checked="" type="radio"/> General Record <input type="radio"/> QA Record				
Quality Rigor Level	QA program which meets the requirements of				
QRL2	<input checked="" type="checkbox"/> DOE Order 414.1 <input type="checkbox"/> NQA-1-2000				
Deliverable was subjected to:					
Peer Review					
<input type="radio"/> Signed PR Report					
<input type="radio"/> Signed PR Concurrence Sheet					
<input checked="" type="radio"/> Listing of PR Reviewer(s)					
William Halsey Michael Voegele					
Deliverable Title					
Disposal Concepts and Thermal Load Management					
Deliverable Description					
Main Document Title					
Deliverable Location	Tracking Number	Main Document	Supporting Document		
PICS NE	M2FT-13SN0804031	FCRD-UFD-2012-00219 Rev. 2.pdf Uploaded By: Ernest Hardin on 12/3/2012			
DMS	FCRD-UFD-2012-00219				
<input type="checkbox"/> EDMS					
<input type="checkbox"/> Lab ID #		Other:			
All uploaded content is subject to established formal government mandated controls, specifically those related to export control and protecting the security and privacy of sensitive classified and unclassified information in Federal computer systems					
Notes					
Approvals					
Type	Title	Name	Action	Date	Comment
Submit	FT Work Package Manager	Hardin, Ernest	Submitted	12/3/2012 2:39:46 PM	
Accept	Control Account Manager	McMahon, Kevin	Accepted	12/3/2012 5:01:39 PM	
Accept	National Technical Director	Swift, Peter	Accepted	12/3/2012 6:34:55 PM	
Accept	Federal Manager	Larson, NedGunter, Tim	Accepted	12/7/2012 5:01:20 PM	
Show History					

Assessment Report Sandia National Laboratories Fuel Cycle Technologies Quality Assurance
Evaluation of FY15 SNL FCT M2 Milestone Deliverables

13. Attachment 1 – FY 15 M2 Milestones

Level	Site	FCTWPM	CAM	Milestone ID Number	Deliverable Title	FY	Uploaded Document Name	DMS Tracking Number	Deliverable in DMS?	Enter SAND#	Observation	Deliverable Form / Review Observations	OSTI
M2	SNL	Cipri, Ben	Osburn, Laura	M2F-T-155N0404281	Integration of processing monitoring with the electrochemical safeguards and security performance model	2015		FCRD-MPACT-2015-000121	No/OUO	None	CUI Type marked 'None'. Note indicates that Document was sent to NTD and Program Manager but will not be uploaded since it is OUC.	PICIS/NE Deliverable Form is Correct DMS includes completed QAPD Appendix E form QRL3 - Tech reviewer indicated	
M2	SNL	Durbin, Sam	Osburn, Laura	M2F-T-155N0405091	Preliminary Security Evaluation of a Pilot Interim Storage Facility	2015		FCRD-MPACT-2015-000122	No/Classified	None	CUI Type marked 'None'. Note indicates that it is a Classified Report (SND) titled "Preliminary Security Assessment of a Conceptual Pilot Storage Facility for Spent Nuclear Fuel"	PICIS/NE Deliverable Form is Correct DMS includes completed QAPD Appendix E form QRL3 - Tech reviewer indicated	
M2	SNL	Sassari, Dave	Mackinnon, Robert	M2F-T-155N0817061	Site Evaluation for Deep Borehole Field Test	2015	Final M2FT-155N0817061 Site Evaluation UFD.pdf	FCRD-UF-D-2015-000130	Yes/ Not UUR	None / Programmatic Review Only	DBFT Document marked as not UUR in DMS - no form	General Record not indicated on Deliverable form Document in DMS includes correct QAPD Appendix E form QRL3 - Tech reviewer indicated	
M2	SNL	Kuhman, Kris	Mackinnon, Robert	M2F-T-155N0817081	Conceptual Design and Requirements for Characterization and Field Test Boreholes	2015	deep-borehole-conceptual-design-requirements-M2-FINAL.pdf	FCRD-UF-D-2015-000131	Yes/ Not UUR	None / Programmatic Review Only	DBFT Document marked as not UUR in DMS - no form	PICIS/NE Deliverable Form is Correct	
M2	SNL	Manner, Paul	McMahon, Kevin	M2F-T-155N0808011	Application of Generic Disposal System Models	2015	GDSA_2015_draft_r3a.pdf	FCRD-UF-D-2015-000126	Yes	SAND2015-10037 R	No SAND# on DMS Document	Deliverable Form OK No QAPD Appendix E form in Document	122615 In SP Site
M2	SNL	Wang, Yifeng	McMahon, Kevin	M2F-T-155N0807071	Evaluation of Used Nuclear Fuel Disposition in Crystalline Rocks	2015	Crystalline crystal report.pdf	FCRD-UF-D-2015-000125	Yes	SAND2015-10687 R	No SAND# on DMS Document	Deliverable Form OK Document includes completed QAPD Appendix E form QRL3 - Tech reviewer indicated	1229704 In SP Site
M2	SNL	Nenoff, Tina	Vienna, John	M2F-T-155N0312041	Demonstrate scale-up procedure for glass composite material for incorporation of iodine loaded AgI	2015	M2FT-155N0312041.pdf	FCRD-MRWFD-2015-000120	Yes	SAND2015-6115 R	DMS Document has SAND#	DOE Order 414.1 is Unchecked Document includes completed QAPD Appendix E form QRL3 - Two Tech reviewers indicated	1207653 In SP Site
M2	SNL	Bryan, Charles	Sorenson, Ken	M2F-T-155N0805051	Stress Corrosion Cracking Investigation on a Full Scale Stainless Steel Canister Mock-up	2015	FCRD-UF-D-2015-00123 - Mock-up WRS status report - Final.pdf	FCRD-UF-D-2015-000123	Yes	SAND2015-7068 R	DMS Document has SAND# CR Bryan	Deliverable Form OK Document includes completed QAPD Appendix E form QRL3 - Tech reviewer indicated	1222448 In SP Site
M2	SNL	Dingreville, Remi	Sorenson, Ken	M2F-T-155N0810051	Development of Uncertainty Quantification Methodology as Applied to Storage and Transportation RSD.	2015	M2FT-155N0810051.pdf	FCRD-UF-D-2015-000127	Yes/OUO	SAND2015-7173 R	No SAND# on DMS Document Document marked DRAFT, not UUR and OUO	CUI Type Marked as None (Should be OUC) Document includes correctly completed QAPD Appendix E form	None In SP Site
M2	SNL	Jove-Colon, Carlos	McMahon, Kevin	M2F-T-155N0806071	Evaluation of Used Nuclear Fuel Disposition in Clay-bearing Rocks	2015	M2FT-155N0806071_Milestone_UFD_ARG_FY15_Rev1a.pdf	FCRD-UF-D-2015-000124	Yes	SAND2015-7827 R	No SAND# on DMS Document This is Volume I, Volume II is large document	DOE Order 414.1 is Unchecked Document includes correctly completed QAPD Appendix E form QRL3 - Tech reviewer indicated	None In SP Site
M2	SNL	Jove-Colon, Carlos	McMahon, Kevin	M2F-T-155N0806071	Evaluation of Used Nuclear Fuel Disposition in Clay-bearing Rocks	2015	M2FT-155N0806071_Milestone_UFD_ARG_FY15_Rev1a.pdf	FCRD-UF-D-2015-000124	Yes	SAND2015-7827 R	No SAND# on DMS Document Volume II is large document	DOE Order 414.1 is Unchecked Document includes correctly completed QAPD Appendix E form QRL3 - Tech reviewer indicated	None In SP Site
M2	SNL	Hardin, Ernest	Mackinnon, Robert	M2F-T-155N0817091	Deep Borehole Field Test Specifications	2015	DBFT Specs M2 Final Rev 1.pdf	FCRD-UF-D-2015-000132	Yes	SAND2015-8234R	DMS Document has SAND# Ehardin	Deliverable Form OK Document includes correctly completed QAPD Appendix E form QRL3 - Tech reviewer indicated	1222449 In SP Site
M2	SNL	Hardin, Ernest	McMahon, Kevin	M2F-T-155N0816021	Summary of Investigations on Technical Feasibility of Direct Disposal of Dual-Purpose Canisters	2015	FCRD-UF-D-2015-000129 Rev 1 DPC Summary.pdf	FCRD-UF-D-2015-000129	Yes	SAND2015-8712 R	DMS Document has SAND# Ehardin	Deliverable Form OK Document includes correctly completed QAPD Appendix E form QRL3 - Tech reviewer indicated	None In SP Site
M2	SNL	McConnell, Paul	Sorenson, Ken	M2F-T-155N0813021	Surrogate Assembly Test Simulating Normal Conditions of Rail Transport	2015		FCRD-UF-D-2015-000128	Yes	SAND2016-0914	No SAND# on DMS Document	Deliverable Form OK Document includes correctly completed QAPD Appendix E form QRL3 - Tech reviewer indicated	None In SP Site

14. Attachment 2 – FY 15 Milestone Assessment Plan

Assessment Plan
Sandia National Laboratories
Fuel Cycle Technologies Quality Assurance
Evaluation of FY15 SNL FCT M2 Milestone Deliverables

Approvals:

Manager

Kevin McMahon

Electronic Authentication via email 2/29/16

Signature

Date

Lead Assessor:

Gordon Appel

Electronic Authentication via email 2/29/16

Signature

Date

Note: Authentication of the cover sheet for this assessment may be accomplished by transmittal of the signed cover sheet or acknowledging the action via Sandia email, or uploading the documentation to a controlled location on a Sandia network by the authenticator, and marked accordingly.

Assessment Report Sandia National Laboratories Fuel Cycle Technologies Quality Assurance
Evaluation of FY15 SNL FCT M2 Milestone Deliverables

Assessment Plan
Sandia National Laboratories
Fuel Cycle Technologies Quality Assurance
Evaluation of FY15 SNL FCT M2 Milestone Deliverables

Background

Sandia National Laboratories (SNL) Fuel Cycle Technologies (FCT) program activities are conducted in accordance with FCT Quality Assurance Program Document (FCT-QAPD)¹ requirements. The FCT-QAPD interfaces with SNL approved Quality Assurance Program Description (SNL-QAPD)² as explained in the Sandia National Laboratories QA Program Interface Document for FCT Activities³ (Interface Document).

As part of the annual work planning process, FCT work package managers designate a Quality Rigor Level (QRL) for the work package. The QRLs (QRL 1, 2, 3, and Lab/Participant), and the review requirements for each QRL are specified in the FCT-QAPD and the Interface Document section 10. Sections 11 and 12 of the Interface Document specify a milestone deliverable review and submittal requirements. Upon completion, SNL FCT milestone deliverables are uploaded to the Performance Information Collection System-Nuclear Energy (PICS-NE). Uploaded deliverables are automatically copied to the FCT document management system (FCT-DMS) in conformance with the FCT Records Management Plan⁴ because PICS-NE is not intended for document storage.

Purpose and Scope

This plan describes SNL's FY16 assessment of SNL's FY15 FCT M2 milestone deliverable's compliance with program QA requirements, including SNL R&A requirements. The assessment is intended to confirm that SNL's FY15 milestone deliverables contain the appropriate authenticated review documentation (appropriately signed FCT QAPD Appendix E or completed PICS:NE Deliverable Form) and that there is a copy marked with SNL R&A numbers.

Requirements

The assessment will evaluate compliance with the following requirements for all milestone deliverables with the exception of QRL 1 deliverables. There are no QRL 1 milestones for the timeframe being evaluated.

Requirement	QRL 2	QRL 3	Lab / Participant QA Program
Includes a FCT Document Cover Sheet ⁵	Yes	Yes	Yes
FCT Document Cover Sheet indicates Peer Review ⁶	Yes	n/a	n/a
FCT Document Cover Sheet indicates Technical Review ⁶	n/a	Yes	n/a
Deliverables is stored in DMS ⁷	Yes	Yes	Yes
Deliverable in DMS displays SNL R&A number ⁸	Yes	Yes	Yes

¹Fuel Cycle Technologies Quality Assurance Program Document, Revision 2, December 2012

²Sandia's Quality Assurance Program Description, SNL-QAPD-2014-05-30, Revision 4, May 2014.

³Sandia National Laboratories QA Program Interface Document for FCT Activities, Revision 4, September 2015

⁴Records Management Plan for Fuel Cycle Technologies, FCRD-TIO-2011-000168, Revision 4, November 2012.

⁵QAPD Section 6.10 and Interface Document Section 11

⁶QAPD Section 3 and Interface Document Table 2 (Alternatively, is the PICS:NE deliverable form appropriately completed.)

⁷FCT Records Management Plan

⁸Section 7.4 of the SNL-QAPD

Assessment Report Sandia National Laboratories Fuel Cycle Technologies Quality Assurance Evaluation of FY15 SNL FCT M2 Milestone Deliverables

Assessment Approach

The assigned QRL and associated milestone metadata is gathered from the Project Information Collection System for Nuclear Energy (PICS-NE). For FY15, identification of the SNL milestone deliverables and the associated QRL is obtained from the PICS-NE Field Report 'Milestone Activity Detail'. Milestone ownership details (Milestone/Activity Title, Work Package Manager, Control Account Manager, and National Technical Director) are added to the Milestone Activity Detail information based on the deliverable Milestone ID Number and the associated information in the PICS-NE Field Report 'Deliverable Approvals'. For FY15 Milestone Deliverables, STI and OSTI information was similarly added to help understand assessment results. This information is compiled in an Excel spreadsheet, and used to record the results for the evaluation of each milestone deliverable.

Evaluation Approach

For each FY15 M2 milestone deliverable the following will be checked and recorded.

- Does the milestone deliverable include an authenticated (appropriately signed) FCT QAPD Appendix E sheet? Alternatively, is the PICS:NE deliverable form appropriately completed.
- Is the review indicated appropriate with respect to the assigned QRL?
- Is there a copy of the milestone deliverable marked with the appropriate SNL R&A number?

Assessment Report

The results of this assessment will be described in a brief report.

15. Attachment 3 – Concurrence Documentation

From: McMahon, Kevin A
Sent: Friday, May 20, 2016 10:20 AM
To: Appel, Gordon
Subject: Approve: Final Assessment Report - Evaluation of FY15 SNL FCT M2 Milestone Deliverables - Update

From: Appel, Gordon
Sent: Friday, May 20, 2016 10:11 AM
To: McMahon, Kevin A (kamcmah@sandia.gov)
Subject: Final Assessment Report - Evaluation of FY15 SNL FCT M2 Milestone Deliverables - Update
Attachments: 20160517_SNL FCT FY15 M2 Deliverables QA Self-Assessment Report_R1_final.docx

Tracking:	Recipient	Response
	McMahon, Kevin A (kamcmah@sandia.gov)	
	McMahon, Kevin A	Approve: 5/20/2016 10:20 AM

Kevin,

I discovered a minor change that we should make to the Assessment Report: In Table 1 line 2 we should change 'Peer' to 'appropriate'. These deliverables were all QRL3 and required Technical not Peer Review.

Attached is a revised copy of our Final Assessment Report - Evaluation of FY15 SNL FCT M2 Milestone Deliverables.

Please acknowledge your concurrence using the voting buttons.

Gordon Appel
Sandia National Laboratories
06222 Nuclear Waste Disposal Research & Analysis 505/844-
1283
702/235-5908