



Nevada Site Specific Advisory Board Table of Contents

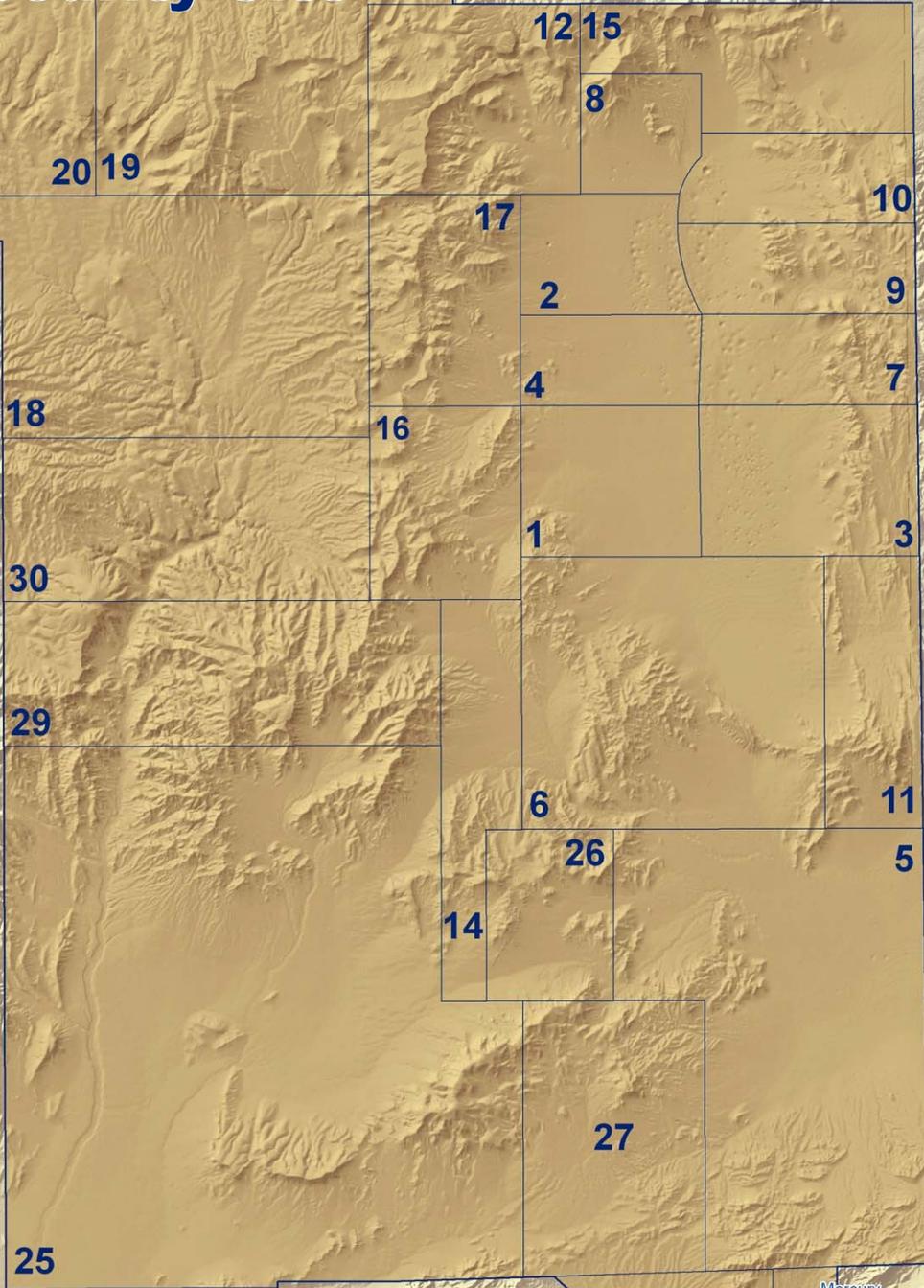
**Full Board Meeting Handouts for
Wednesday, November 19, 2014**

**Please note: For your convenience, this Table of Contents
has a link to the first page of each handout.**

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Nevada National Security Site



0 3 6 12

Kilometers

0 0.75 1.5 3

Miles

373

95

160

22

U.S. DEPARTMENT OF ENERGY ENVIRONMENTAL MANAGEMENT SITE-SPECIFIC ADVISORY BOARDS



NSSAB MEETING ATTENDANCE

Full Board Meetings

October 2014 through September 2015 (FY 2015)

Name	11/19/14	1/21/15	2/18/15	3/25/15	5/20/15	7/15/15	9/16/15	Max Terms
MEMBERS								
Michael Anderson	E							2020
Amina Anderson	√							2020
Michael D'Alessio	√							2020
Pennie Edmond	√							2020
Donna Hruska	√							2016
Janice Keiserman	√							2018
James Manner	√							2020
Michael Moore	√							2016
Donald Neill	√							2020
Edward Rosemark	√							2018
Steve Rosenbaum	√							2020
William Sears	√							2018
Thomas Seley	√							2020
Cecilia Snyder	√							2020
Jack Sypolt	√							2017
James Tallant	√							2020
Francisca Vega	√							2020
LIAISONS								
Clark County	√							
Consolidated Group of Tribes and Organizations	√							
Elko County Commission	U							
Esmeralda County Commission	E							
Lincoln County Commission	U							
Nye County Commission	E							
Nye Co. Nuclear Waste Repository Project Office	√							
State of NV Division of Env Protection	√							
U.S. Natl Park Service	E							
White Pine Co. Commission	U							
KEY: √ = Present Term Limit E = Excused U = Unexcused RM = Remove RS = Resign								

Assessment of the Underground Test Area Quality Assurance Plan Implementation Work Plan Item 8



Sam Marutzky
Navarro-Intera
Nevada Site Specific Advisory Board
November 19, 2014



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NSSAB Work Plan Item #8

One or two NSSAB members to observe an Underground Test Area (UGTA) Quality Assurance Plan (QAP) implementation assessment in order to provide a recommendation on possible improvements to the assessment process and/or the UGTA QAP



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Groundwater (UGTA) Background

- 1951 to 1992: United States government conducted 828 underground nuclear tests at the Nevada National Security Site at depths ranging from approximately 90 to 4,800 feet below the ground surface
- About one-third of these tests occurred in, near, or below the water table, which resulted in some contamination of the area's groundwater
- The purpose of the Groundwater (UGTA) activity is to protect human health and the environment from contamination resulting from the tests



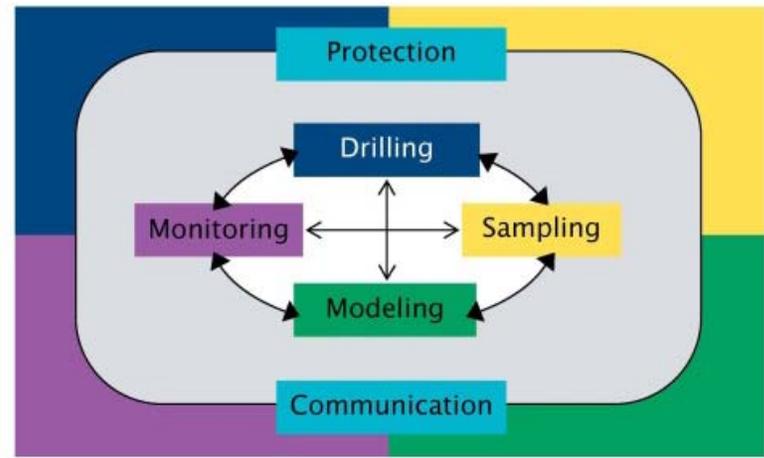
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Groundwater (UGTA) Background (continued)

The Groundwater (UGTA) objective is to define perimeter boundaries for each Corrective Action Unit (CAU) over the next 1,000 years using:

- Characterization
 - Data collection and evaluation (drilling, aquifer testing, sampling and analysis, laboratory studies)
 - Modeling (conceptual, geologic, hydrologic/flow, and contaminant transport)
- Model Evaluation
 - Iterative data collection and model refinement



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Groundwater (UGTA) Background (continued)

- The goal is to provide the characterization data, model forecasts, and monitoring results to facilitate informed regulatory decisions required for closure by the Nevada Field Office and the State of Nevada Division of Environmental Protection (NDEP)
- Closure of each CAU will include establishing a long-term monitoring network, institutional controls, inspections and periodic re-evaluations
- QAP provides the overall quality assurance requirements and general quality practices to be applied to the Groundwater (UGTA) activities



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QAPs – What Are They

- Quality Assurance makes sure the right things are done the right way
- QAP describes the procedures, specifications, and other technical activities that must be implemented to ensure that the results will meet the specifications
 - Defines roles and responsibilities
 - Establishes data collection, data management, records, and software/modeling requirements
 - Provides framework for assessments, reports to management and corrective actions



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QAPs – What Are They (continued)

- Major objectives of a QAP is to ensure:
 - **Traceability:** is achieved when a reviewer with sufficient training and access to supporting information is able to follow the flow of information from source data to the results reported in released documents
 - **Reproducibility:** is achieved when a model or data can be 1) restored to any check point in time when it was used to produce reported results and 2) rerun to obtain the reported results



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UGTA QAP

- Department of Energy (DOE) document overarching UGTA participant's quality programs
 - Base requirements
 - Does not preclude participants having corporate QAPs
- Based on U.S. Environmental Protection Agency guidance for model quality assurance and DOE Order 414
- Reviewed and approved by NDEP



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UGTA QAP History

- Historic QAPs were focused on sample collection and analysis
- Modeling software concerns and new state law regarding laboratory certification led to revising QAP in 2011 and including new requirements
- Four sections:
 - Management
 - Work processes
 - Assessment and oversight
 - Corrective action



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Management Section

- Problem definition and background
- Description
- Roles and responsibilities
- Qualifications and training
- Quality objectives and criteria
- Document control
- Records management
- Information/data management
- Procurement
- Computer software and codes
- Identification and control of items
- Measuring and test equipment



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Work Processes Section

- Data quality indicators
- Field operations
- Laboratory analyses
- Laboratory studies
- Non-direct data
- Groundwater flow and transport modeling
- Model evaluation
- Configuration control



UGTA Field Operations



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Assessment and Oversight Section

- Assessment
- Technical reviews
- Peer review
- Document review and issuance
- Reports to management



External Peer Review Panel Receive Briefings During Yucca Flat review



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Corrective Action Section

- Suspend/Stop Work
- Event/Issues tracking
- Causal Analysis
- Trend analysis
- Lessons learned



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QAP Implementation

- Implementation plan for new requirements
 - Gap analysis – identify need for new procedures or revisions to existing procedures
 - UGTA Committees standardized forms and requirements
 - Implementation
 - Evaluation ← **this is where we are now**
 - Revise QAP



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UGTA QAP Link

- Current QAP: Underground Test Area Activity Quality Assurance Plan Nevada National Security Site, Nevada, DOE/NV—1450-Rev. 1, dated October 2012
 - Available online:

<http://nnsa.energy.gov/sites/default/files/nnsa/11-13-multiplefiles/36%20UGTA%20QAP%20Rev.%201.pdf>

UNCLASSIFIED

Nevada
Environmental
Management
Operations Activity

DOE/NV-1450-REV. 1
NNSA
National Nuclear Security Administration

Underground Test Area Activity
Quality Assurance Plan
Nevada National Security Site,
Nevada

Controlled Copy No.: ____
Revision No.: 1

October 2012

UNCLASSIFIED
/s/ Joseph P. Johnston, N.I. CO 10/23/2012
Approved for public release; further dissemination unlimited.

U.S. Department of Energy
National Nuclear Security Administration
Nevada Site Office

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QAP Implementation – Evaluation and Revision

- Nevada Field Office leads assessment team
 - Desert Research Institute scheduled December 8-10, 2014
 - Lawrence Livermore National Laboratory scheduled January 2015
 - Los Alamos National Laboratory conducted August 2014
 - National Security Technologies, LLC conducted April 2014
 - Navarro-Intera, LLC conducted January 2014
 - United States Geological Survey conducted June 2014
- Review/revision of QAP scheduled January - March 2015
 - Assessments have identified needed changes to QAP



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Assessments

- Nevada Field Office Order 226.X, Line Oversight Program
 - Federal employee is lead assessor
 - Notification letter
 - Criteria and Review Approach Documents
 - Follow four sections of QAP
 - Summary of checklist items
 - Checklist
 - More detailed requirements from QAP



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Assessments (continued)

- In-brief and exit meetings
- Document reviews; personnel interviews; work observations



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Assessments

(continued)

- Issue report within 30 days
 - Finding – violations of QAP, procedure, or policy requirements
 - Opportunities for improvement – a suggestion or recommendation for continuing improvement
 - Observations – a condition that is not a violation of a requirement, but if left unattended could lead to a finding
 - Best management practices – a good management process that should be shared with other participants



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Corrective Actions

- Issues require formal corrective action
- UGTA tracking system

Tracking Number	Reference Number	Due Date	Type	Participant	Condition Title
0.988	UGTA Gap Analysis	9/01/2014	Finding	LLNL	Trace Elements Data Verification and Validation
631.1	OAA-13-AMEM-BM-82713	9/30/2014	OFI	N-I	Uncontrolled technical basis documents
654.5		8/27/2014	Finding	N-I	Water sample results not entered into Geochemistry database.



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NSSAB Path Forward

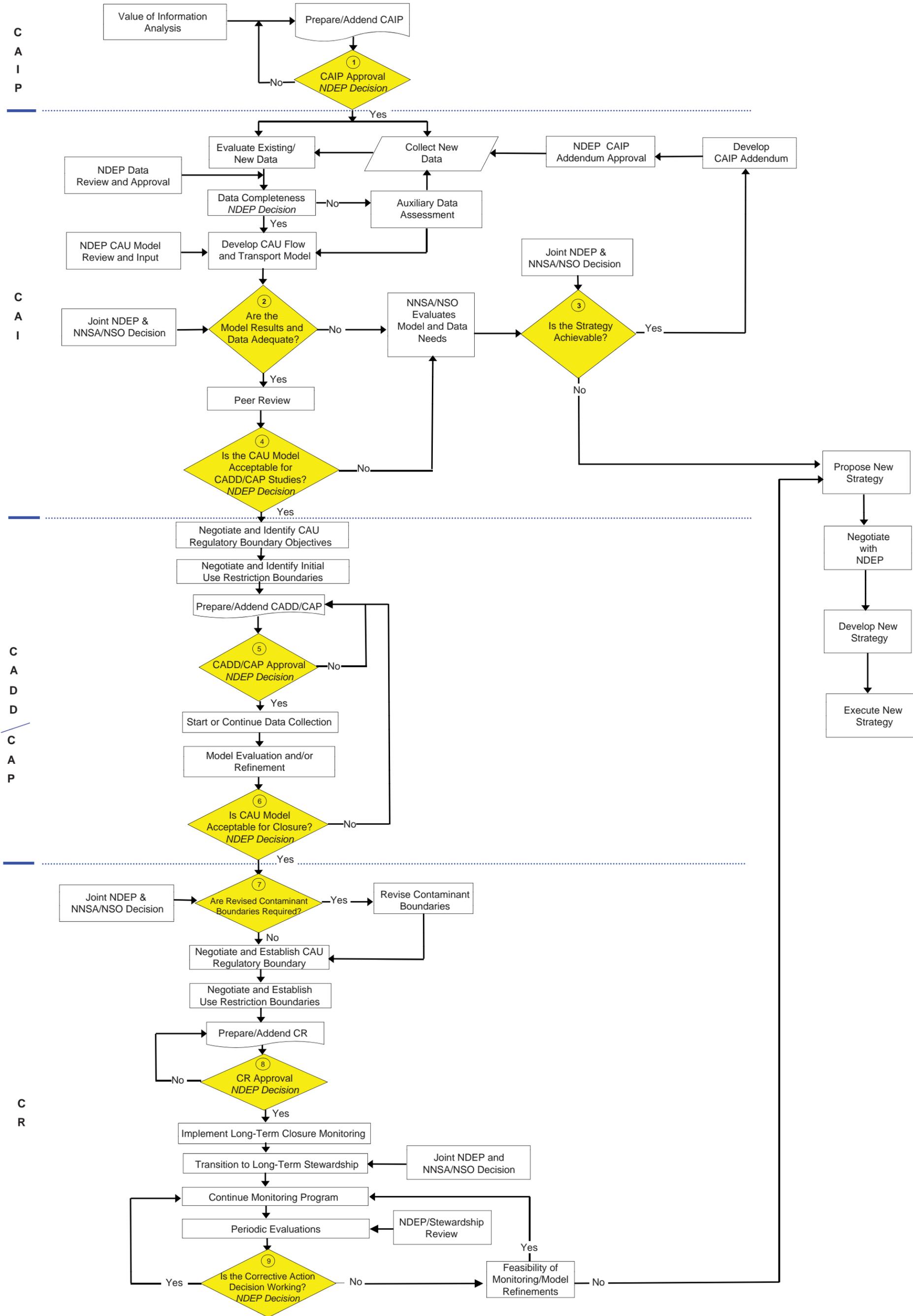
- One or two NSSAB members invited to observe an UGTA QAP implementation assessment
 - Desert Research Institute – Las Vegas –
December 08-10, 2014
- NSSAB discussion and decision on member(s) attendance
- Attendees report their observations to the Full Board on January 21, 2015
- Recommendation due to DOE by February 18, 2015



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Underground Test Area (UGTA) Groundwater Closure Strategy



Annual Nevada National Security Site Environmental Report



Cathy Wills

National Security Technologies (NSTec), Lead Author
Nevada Site Specific Advisory Board (NSSAB)

November 19, 2014



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NSSAB Work Plan

Item 5	Work Plan Item	<i>Annual Nevada National Security Site Environmental Report</i>
	Recommendation Due	January 2015
	Description:	<p>In November 2014, the Nevada Field Office (NFO) will provide a briefing that explains the Annual Nevada National Security Site Environmental Report (NNSSER) and provide copies of the 2013 summary of this report and sections of similar reports by other Department of Energy (DOE) sites.</p> <p>From a community perspective, the NSSAB will provide a recommendation on how the document could be enhanced (i.e., readability, presentation of information, likes and dislikes between NNSSER and other DOE sites' Annual Site Environmental Reports).</p>



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Presentation of Work Plan Item 5

- NFO to provide copies of the 2013 annual NNSER and a briefing that explains the report
- This presentation will:
 - Identify sections of the 2013 NNSER that the NSSAB is tasked to review (those portions for which DOE Environmental Management is responsible)
 - Present DOE Headquarters' guidance regarding the recommended content of those NNSER sections
 - Provide Internet links to (and/or hard copies of) similar sections from other DOE/National Nuclear Security Administration sites' annual site environmental reports (ASERs) for comparison



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Sections of NNSER to Review

- NSSAB to provide recommendations regarding the presentation of information in the following four portions of the NNSER:
- Each NSSAB member asked to choose at least one of these four areas to review
- Each area needs a leader to consolidate comments and suggestions

Summary
Pamphlet

Chapter 5, Section
5.1 – Radiological
Water Monitoring

Chapter 10,
Section 10.1 –
Radioactive Waste
Management

Chapter 11 –
Environmental
Restoration



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Summary Pamphlet Review

- Please provide responses to the following questions:
 - Is the purpose of the Summary clear?
 - Is the information presented in a logical sequence?
 - Is it written at the right technical level for the public?
 - Is information of public interest adequately explained and clearly presented?
 - Are figures and tables helpful and understandable?
 - Any recommendations for improvement?
 - Are other site's Summary documents better at presenting information or better in other ways?



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DOE/HQ Guidance for ASER Summaries

- ASERs should be prepared in a manner that addresses likely public concerns and solicits feedback from the public and other stakeholders on site environmental management performance and compliance.
- Some recent successful approaches illustrating this include publication of a summary pamphlet targeted for the general public or non-technical reader that accompanies the ASER.
- Community involvement in preparing the summary pamphlet is encouraged.



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Other DOE/NNSS ASER Summaries

- Argonne National Laboratory, Illinois (ANL)
 - <http://www.anl.gov/sites/anl.gov/files/SSER2012.pdf>
(Note: the above link is to the 2012 Summary. The 2013 Summary will not be published until January/February 2015)
- Los Alamos National Laboratory, New Mexico (LANL) *(25 hard copies provided to NSSAB)*
 - <http://www.lanl.gov/community-environment/environmental-stewardship/environmental-report.php>
- Savannah River Site, South Carolina (SRS) *(25 hard copies provided to NSSAB)*
 - <http://www.srs.gov/general/pubs/ERsum/>

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Chapter 5 Review - Radiological Groundwater Monitoring

- For Section 5.1, please provide responses to the following questions:
 - Is it written at the right technical level?
 - Is the level of detail appropriate?
 - Are the data clearly presented and easy to understand?
 - Is the use of % maximum contaminant level (MCL) instead of picocuries per liter (pCi/L) for tritium concentration results helpful? (for example, in Figure 5-3)
 - Is information of public interest clearly indicated or highlighted?
 - Do captions adequately describe figures and tables?
 - Any recommendations for improvement?



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DOE/HQ Guidance for Groundwater

- Include a brief description of site hydrological conditions, including cross-sections of subsurface conditions at the site
- Include references to additional technical documents detailing the hydrological conditions, including groundwater flow and potential receptors
- Include data on facility up-gradient and down-gradient wells at Resource Conservation and Recovery Act (RCRA) hazardous waste units, DOE Radioactive Waste Management Units, RCRA or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remediation sites, and identified compliance points to track groundwater plume movement



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DOE/HQ Guidance for Groundwater (continued)

- Identify groundwater monitoring wells operated for other purposes (aquifer characterization, environmental surveillance, compliance monitoring)
- Show trends in ground-water plume movement over a five year period, at a minimum. Trend data should be displayed graphically or presented as basic statistics (such as median values and ranges) for contaminants commonly detected at the site.
- Discuss real or potential impact of groundwater plume and contaminant movement on public drinking water supplies.



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DOE/HQ Guidance for Groundwater (continued)

- Highlight monitoring wells with significant changes in contamination indicator parameters above background levels
- Describe site groundwater monitoring network objectives and the monitoring network(s) established to meet the objectives
- Include tables to summarize the number of active wells by area of the site and by purpose
- Address the number of wells installed or abandoned during the current year and any unique or innovative techniques used in the site groundwater monitoring network in the tables



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Other DOE/NNSS ASERs– Radiological Groundwater Monitoring

- Brookhaven National Laboratory, New York (BNL)
 - Chapter 7: Groundwater Protection
 - <http://www.bnl.gov/esh/env/ser/>
 - Groundwater Status Report (*link shown on same page*)
- Hanford Site, Washington
 - Section 8, Groundwater Monitoring
 - <http://msa.hanford.gov/page.cfm/EnvironmentalReports2001-latest>
- Idaho National Laboratory, Idaho (INL)
 - Chapter 6 – Environmental Monitoring Program – Eastern Snake River Plain Aquifer
 - <http://www.gsseser.com/Publications.htm#Annual>

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Other DOE/NNSS ASERs– Radiological Groundwater Monitoring (continued)

- Los Alamos National Laboratory, New Mexico (LANL)
 - Section 5.0, Groundwater Monitoring
 - <http://www.lanl.gov/community-environment/environmental-stewardship/environmental-report.php>
- Oak Ridge, Tennessee (Y-12 National Security Complex)
 - Section 4.6, page 4-66, Groundwater at the Y-12 Complex
 - http://web.ornl.gov/sci/env_rpt/
- Savannah River Site, South Carolina (SRS)
 - Chapter 7, Groundwater
 - <http://www.srs.gov/general/pubs/ERsum/index.html>

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Chapter 10 Review – Radioactive Waste Management

- For Section 10.1, please provide responses to the following questions:
 - Is it written at the right technical level?
 - Is the level of detail appropriate?
 - Are the data clearly presented and easy to understand?
 - Is information of public interest clearly indicated or highlighted?
 - Do captions adequately describe figures and tables?
 - Any recommendations for improvement?



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DOE/HQ Guidance for Radioactive Waste Management

- Briefly summarize site progress in achieving compliance with DOE Order 435.1, Radioactive Waste Management
 - Include information on the wastes that are managed at the site (e.g., high level, low level, transuranic) and what type of waste management the site is performing (e.g., generation, treatment, storage, disposal)
 - Include the status of each phase of the low-level waste management process (e.g., performance assessment, composite analysis [PA/CA], closure plan, PA/CA maintenance program, disposal authorization statement) for low-level waste facilities



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DOE/HQ Guidance for Radioactive Waste Management (continued)

- Include a narrative description of the site low-level waste management program
- Include a discussion of radioactive waste management activities



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Other DOE/NNSS ASERs– Radioactive Waste Management

- Brookhaven National Laboratory, New York (BNL)
 - Chapter 2, Environmental Management System, Section 2.3.4.3, Waste Management
 - <http://www.bnl.gov/esh/env/ser/>
- Hanford Site, Washington
 - Section 5, Environmental Restoration & Waste Management, Section 5.3, Waste Management Activities
 - <http://msa.hanford.gov/page.cfm/EnvironmentalReports2001-latest>
- Idaho National Laboratory, Idaho (INL)
 - Chapter 3, Environmental Program Information, Section 3.3, Waste Management and Disposition
 - <http://www.gsseser.com/Publications.htm#Annual>

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Other DOE/NNSS ASERs– Radioactive Waste Management (continued)

- Los Alamos National Laboratory, New Mexico (LANL)
 - Section 2.0, Compliance Summary, Subsection B.3.b., Radiation Protection, DOE Order 435.1, Radioactive Waste Management (page 2-10)
 - <http://www.lanl.gov/community-environment/environmental-stewardship/environmental-report.php>
- Oak Ridge, Tennessee
 - Section 3 (East Tennessee Technology Park), Subsection 3.8.1, Waste Management Activities (page 3-82)
 - Section 5, Oak Ridge National Laboratory, Subsection 5.8.9, Oak Ridge National Laboratory Waste Management (page 5-92)
 - http://web.ornl.gov/sci/env_rpt/
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Other DOE/NNSS ASERs— Radioactive Waste Management (continued)

- Savannah River Site, South Carolina (SRS)
 - Chapter 3, Compliance Summary, Page 3-2, Waste Management
 - <http://www.srs.gov/general/pubs/ERsum/index.html>

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Chapter 11 Review - Environmental Restoration

- For Chapter 11, please provide responses to the following questions:
 - Is it written at the right technical level?
 - Is the level of detail appropriate?
 - Are the data clearly presented and easy to understand?
 - Is information of public interest clearly indicated or highlighted?
 - Do captions adequately describe figures and tables?
 - Any recommendations for improvement?



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DOE/HQ Guidance for Environmental Restoration

- Discuss Environmental Restoration (ER) activities so as to describe the site's compliance status with the following:
 - Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
 - Superfund Amendments and Reauthorization Act (SARA)
 - Resource Conservation and Recovery Act (RCRA)

(Note: ER activities on the NNSS are driven by RCRA compliance and by the Federal Facility Agreement and Consent Order (FFACO) between DOE and the State of Nevada. No ER activities on the NNSS are driven by CERCLA)



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Other DOE/NNSS ASERs – Environmental Restoration

- Hanford Site, Washington
 - Sections 5.1, Cleanup and Remediation Activities, and Section 5.2, Facility Decommissioning Activities
 - <http://msa.hanford.gov/page.cfm/EnvironmentalReports2001-latest>
- Idaho National Laboratory, Idaho (INL)
 - Chapter 3, Section 3.2 – Environmental Restoration
 - <http://www.gsseser.com/Publications.htm#Annual>
- Los Alamos National Laboratory, New Mexico (LANL)
 - Section 9.0, Environmental Restoration
 - <http://www.lanl.gov/community-environment/environmental-stewardship/environmental-report.php>

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Other DOE/NNSS ASERs – Environmental Restoration (continued)

- Oak Ridge, Tennessee (Y-12 National Security Complex)
 - Section 4.8, Environmental Management and Waste Management Activities, subsections 4.8.1 and 4.8.2 (page 4-92)
 - http://web.ornl.gov/sci/env_rpt/
- Savannah River Site, South Carolina (SRS)
 - Chapter 3, Compliance Summary, Page 3-2, Environmental Restoration
 - <http://www.srs.gov/general/pubs/ERsum/index.html>

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General NNSER Review Questions

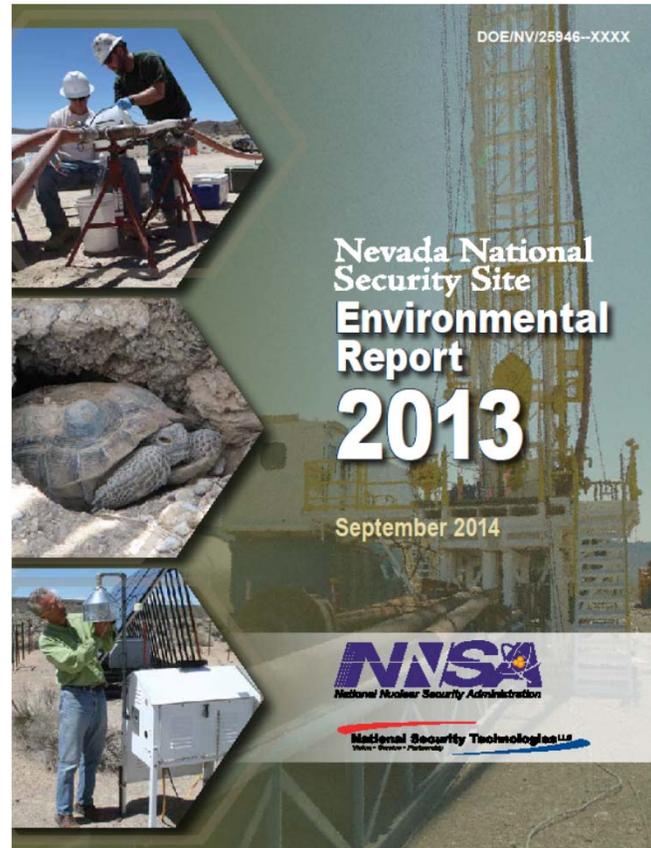
- In addition to your recommendations from the chapter/section-specific reviews, do you have any suggestions for:
 - Ways to inform the interested public about the availability and content of the NNSER?
 - Ways to solicit feedback from the public regarding the NNSER content and format in order to improve the document?



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Additional NNSER Questions?



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NSSAB Path Forward

- Each NSSAB member asked to choose at least one of these four areas to review:
 - Summary
 - Chapter 5, Section 5.1 – Radiological Groundwater Monitoring
 - Chapter 10, Section 10.1 – Radioactive Waste Management
 - Chapter 11 – Environmental Restoration
- Each team asked to choose a leader to consolidate comments and suggestions
- Each team leader provides NSSAB Office with the team's consolidated comments/suggestions by January 5, 2015
- NSSAB Office uses team comments/suggestions to prepare a draft recommendation for the NSSAB to review/discuss/approve at the January 21, 2015 meeting



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Potential New Resource Conservation and Recovery Act (RCRA) Part B Permitted Mixed Waste Disposal Unit Work Plan Item 9



Ken Small

RCRA Program Manager
Nevada Site Specific Advisory Board
November 19, 2014



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NSSAB Work Plan Item #9

From a community perspective, the NSSAB will provide a recommendation on a path forward for mixed waste disposal at the Nevada National Security Site (NNSS)



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What is Mixed Low-Level Waste (MLLW)?

- MLLW is waste that contains both low-level radioactive waste and a hazardous component (toxic, corrosive, reactive, ignitable, or specifically identified by the U.S. Environmental Protection Agency as “hazardous”)
- Typical MLLW includes containerized trash, soil, equipment, tools, building debris and discarded personal protective equipment



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Resource Conservation and Recovery Act (RCRA) Background

- Enacted by Congress in October 1976 to address the increasing problems our nation faced from its growing volume of municipal and industrial waste
- Provides technical and financial assistance for the development of management plans and facilities for the recovery of energy and other resources from discarded materials and for the safe disposal of discarded materials, and to regulate the management of hazardous waste



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RCRA Background

(continued)

- RCRA set national goals for:
 - Protecting human health and the natural environment from the potential hazards of waste disposal
 - Energy and natural resource conservation
 - Reducing the amount of waste generated, through source reduction and recycling
 - Ensuring the management of waste in an environmentally sound manner
- RCRA most widely known for the regulations that set standards for the treatment, storage, and disposal of hazardous waste in the United States
- MLLW at the NNSS is regulated under the RCRA



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Where Does MLLW Come From?

- MLLW is generated by environmental cleanup and waste processing activities at Department of Energy (DOE) sites, including the NNS

Current Generators that Ship MLLW to the NNS

Advanced Mixed Waste Treatment Project (ID)
 Consolidated Nuclear Security, LLC / Y-12 (TN)
 Duratek/EnergySolutions (TN)
 Idaho National Laboratory (ID)
 Lawrence Livermore National Laboratory (CA)
 Materials & Energy Corporation Perma-Fix (TN)
 National Security Technologies (NV)
 Oak Ridge Reservation (TN)
 Paducah Gaseous Diffusion Plant (KY)
 Pantex Plant (TX)
 Portsmouth Gaseous Diffusion Plant (OH)
 Sandia National Laboratories (NM)
 Wastren Advantage, Inc. (TN)



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MLLW Volumes

- In fiscal year 2014, approximately 82K cubic feet of MLLW was received by the NNSS
- The total MLLW disposed in Cell 18 in Area 5 Radioactive Waste Management Complex approximately 440K cubic feet since inception
- In fiscal year 2014, MLLW comprised approximately 6.5% of the total waste disposed at the NNSS

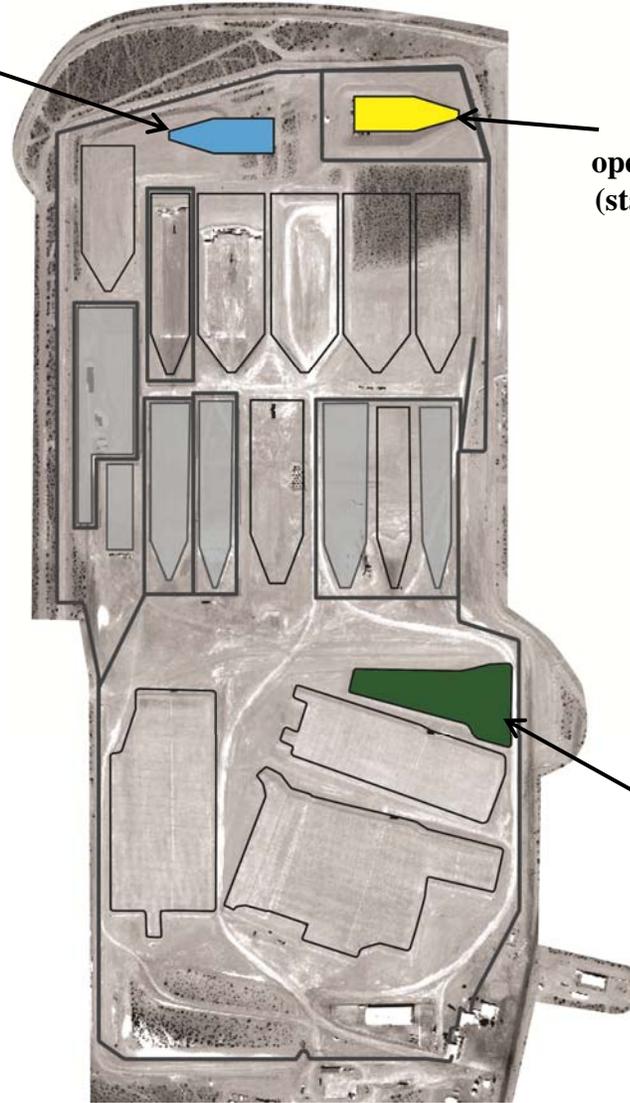


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MLLW Locations at NNSS

Cell 25 –
potential future
MLLW Cell



Cell 18 –
open MLLW Cell
(state-permitted)

Pit 3 –
closed MLLW Cell
(state-approved
closure)



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History of MLLW Disposal at the NNSS

- Pit 3 was the original MLLW disposal site at the Area 5 Radioactive Waste Management Complex
- MLLW Cell 18 was negotiated with the State of Nevada Division of Environmental Protection (NDEP) over a five-year period
- MLLW Cell 18 approval by NDEP was contingent on closing Pit 3
- MLLW Cell 18 was opened in December 2010



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NNSS MLLW Considerations

- Defined in DOE Order 435.1, “Radioactive Waste Management,” that ensures that all DOE radioactive waste is managed in a manner that is protective of workers and the public
- Generators must meet the following criteria in order to ship MLLW to the NNSS for disposal:
 - A clear connection, or series of connections, showing the waste is eligible for disposal at the NNSS
 - Title 40 Code of Federal Regulations land disposal restrictions
 - Some waste may have to be treated to meet these standards
 - NNSS Waste Acceptance Criteria for radiological and hazardous components



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Permitting Process

- Public meeting held to inform community of intent to submit permit application
- DOE accepts and considers comments on its intent to submit the application to NDEP
- DOE submits the permit application to NDEP



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Permitting Process

(continued)

- NDEP reviews permit application and returns comments to DOE
- DOE responds to and resolves NDEP comments
- NDEP conducts a public comment period on the draft permit
- NDEP resolves public comments in conjunction with DOE
- NDEP notifies DOE regarding permit decision



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Typical Permit Terms and Conditions

- RCRA permit valid for five years
- NDEP determines the disposal volume limit
- Waste stored in boxes and/or drums in accordance with U.S. Department of Transportation requirements and NNSW Waste Acceptance Criteria
- NDEP conducts annual inspections
- NDEP has authority to revoke permit

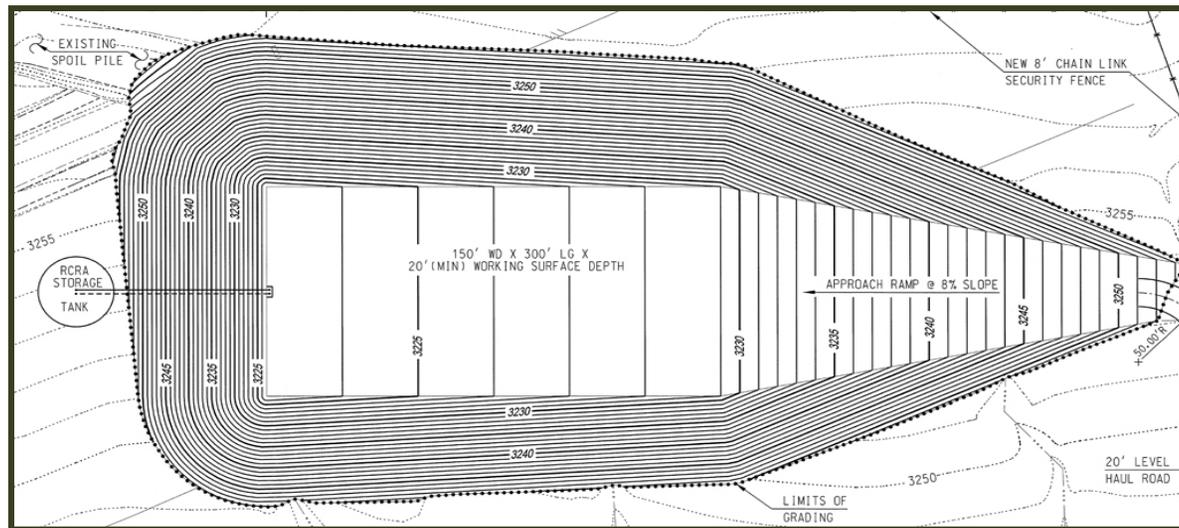


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MLLW Cell 18 Background

- Public meetings held 2010
- RCRA permit issued July 2010
- Constructed from August through December 2010
- Disposal began in January 2011



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MLLW Disposal Cell 18

Current Conditions

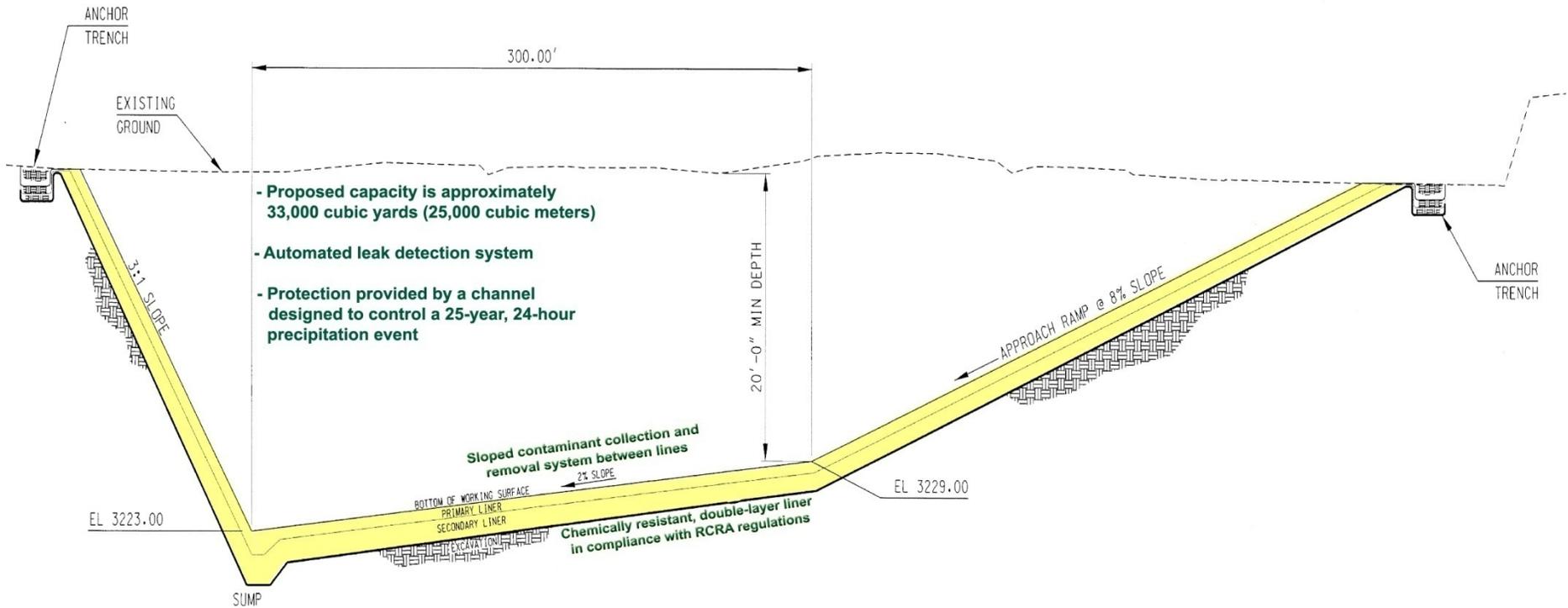
- Cell capacity of 900K cubic feet
 - Approximately 50% full
 - Expect to reach capacity in 2018/2019
- Double liner system consists of five layers
- Liner system is covered with native compacted, graded native alluvial soil



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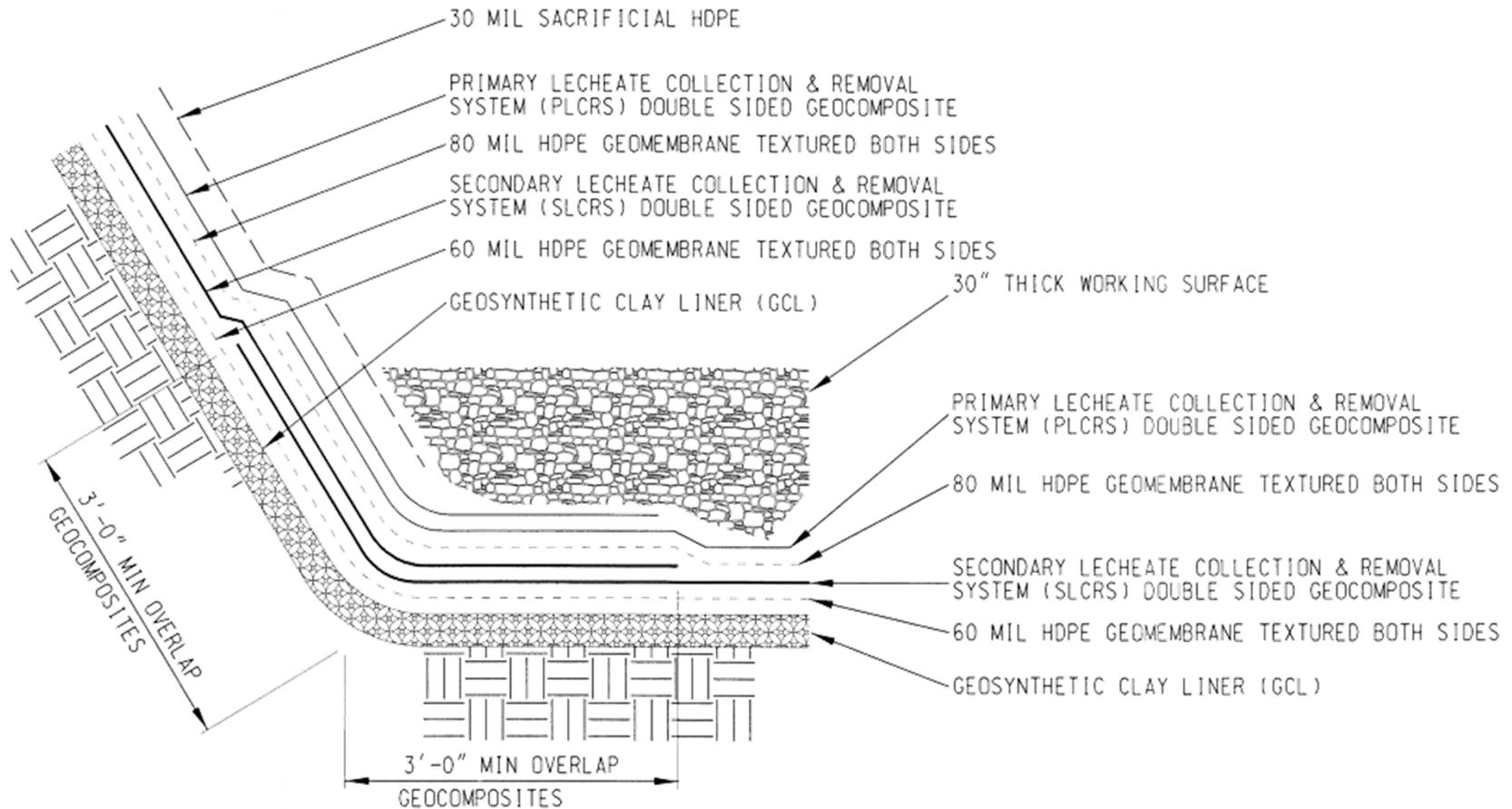
MLLW Cell 18 Design



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MLLW Cell 18 Design (continued)



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NSSAB Path Forward

- NSSAB members toured MLLW Cell 18 and received a briefing in October 2014
- Per NSSAB request, additional MLLW Cell 18 documents available:
 - RCRA Permit
 - Engineering documents
 - Tonight – discuss tour observations and briefing
- From a community perspective, the NSSAB will provide a recommendation on a path forward for mixed waste (MLLW) disposal at the NNSS by January 21, 2015



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EM SSAB Chairs Meeting
Idaho Falls, Idaho
Draft Chairs Recommendation
September 17-18, 2014

Initiate Process of Permit Modification for Additional Surface Storage at WIPP

Background

The Waste Isolation Pilot Plant (WIPP) has been operating since 1999 as the only underground repository for transuranic (TRU) waste disposal. Having the WIPP facility available for TRU waste disposal has been shown to be extremely important to the Department of Energy (DOE) as well as sites across the United States needing to safely and reliably dispose of TRU waste. WIPP operations on a continuing basis are critical to the success of the DOE Office of Environmental Management's (EM) waste disposal mission.

Observations and Comments

With the recent shutdown of WIPP, DOE efforts to complete programs for the shipment of TRU waste from sites needing this method of waste disposal have been jeopardized. The shutdown of WIPP has rendered these sites unable to complete commitments due to respective state consent orders or regulatory requirements. Planning for future shipments to WIPP is also now on hold with no effective time table of when shipments may be able to resume.

Building of additional TRU waste storage facilities at the various generator sites with limited lifetime expectancies is neither efficient nor cost effective. It would be wise to not duplicate the permitting process at multiple sites and concentrate on one site that can truly facilitate permanent long-term disposal of TRU waste.

Reestablishing the current means and methods of TRU waste transport from sites would maintain the present available transport system readiness, keep personnel training levels and maintain effective use of present facilities. An additional consideration to transporting waste as soon as feasible is that transportation costs will likely rise significantly in the ensuing years.

Recommendation

Due to the serious problems that the shutdown of the WIPP has caused the various DOE facilities that must ship TRU waste, the Environmental Management Site-Specific Advisory Board recommends that DOE-EM Headquarters should immediately prepare to expand the above-ground TRU waste interim storage installation at WIPP so that EM sites can proceed with TRU waste shipments even before the underground WIPP disposal operation is approved for reopening.



Nevada Site Specific Advisory Board

September 10, 2014

Members

Kathleen Bienenstein, Chair

Thomas Fisher, PhD

Arthur Goldsmith

Donna Hruska, Vice Chair

Janice Keiserman

Michael Moore

Edward Rosemark

Williams Sears

Jack Sypolt

Liaisons

Clark County

Consolidated Group of Tribes
and Organizations

Elko County Commission

Esmeralda County Commission

Lincoln County Commission

Nye County Commission

Nye County Nuclear Waste
Repository Project Office

State of Nevada Division of
Environmental Protection

U.S. National Park Service

White Pine County Commission

Administration

Barbara Ulmer, Administrator

Navarro-Intera

Kelly Snyder, DDFO

U.S. Department of Energy,

Nevada Field Office

Mr. Robert F. Boehlecke
Environmental Management Operations Manager
U.S. Department of Energy, Nevada Field Office
P. O. Box 98518
Las Vegas, NV 89193-8518

SUBJECT: Recommendation for Radioactive Waste Acceptance Program
(RWAP) Facility Evaluation Improvement Opportunities
(Work Plan Item #7)

Dear Mr. Boehlecke,

The Nevada Site Specific Advisory Board (NSSAB) was asked to provide a recommendation, from a community perspective, to the U.S. Department of Energy on ways to improve the RWAP Facility Evaluation process.

In support of this work plan, Donna Hruska, NSSAB Vice Chair, observed a Facility Evaluation at Oak Ridge in June 2014, and Janice Keiserman, NSSAB Member, observed a Facility Evaluation at Argonne National Laboratory in July 2014. The NSSAB wants to acknowledge the RWAP auditors who were very professional, thorough, and organized while performing their duties during both Facility Evaluations. After updates by Ms. Hruska and Ms. Keiserman and Board discussion and deliberation at the NSSAB's July 16th Full Board meeting, the NSSAB recommends the following improvements to the RWAP Facility Evaluation process:

- Assess the integrity of containers bound for the Nevada National Security Site (NNSS)
- Increase unannounced visits to generators
- Review the process for assessing shipping and routing information from the transportation company to ensure that it provides robustness and confidence in NNSS waste transportation information

In addition, the NSSAB acknowledges that the NNSS transportation paperwork was very specific in the instructions for the drivers and thorough in the information and maps relating to the acceptable transportation routes to the NNSS.

Robert Boehlecke
September 10, 2014
Page 2

The NSSAB appreciates the opportunity to observe these Facility Evaluations and to provide this recommendation and extends a special thanks to the Federal staff, Jhon Carilli and Kevin Cabbie, who were in attendance.

Sincerely,

A handwritten signature in black ink, appearing to read "KATHLEEN BIENENSTEIN". The signature is stylized and somewhat cursive.

Kathleen L. Bienenstein, Chair

cc: D. A. Borak, DOE/HQ (EM-3.2)
M. R. Hudson, DOE/HQ (EM-3.2)
J. T. Carilli, NFO
K. J. Cabbie, NFO
C. G. Lockwood, NFO
J. N. Romo, NFO
K. K. Snyder, NFO
S. A. Wade, NFO
B. K. Ulmer, N-I
NSSAB Members and Liaisons



Department of Energy
National Nuclear Security Administration
Nevada Field Office
P.O. Box 98518
Las Vegas, NV 89193-8518



OCT 16 2014

Donna Hruska, Chair
Nevada Site Specific Advisory Board
232 Energy Way
North Las Vegas, NV 89030

**RECOMMENDATION FOR RADIOACTIVE WASTE ACCEPTANCE PROGRAM (RWAP)
FACILITY EVALUATION IMPROVEMENT OPPORTUNITIES (WORK PLAN ITEM #7)**

Reference: Ltr Bienenstein to Boehlecke, dtd 09/10/2014

The Nevada Field Office (NFO), Office of Assistant Manager for Environmental Management (O/AMEM) received and reviewed the referenced letter. The O/AMEM replies are as follows:

- *Assess the integrity of containers bound for the Nevada National Security Site (NNSS)*

The NFO agrees that it is very important to verify the integrity of waste containers received for disposal and conducts visual assessments at the Area 5 Radioactive Waste Management Site. The NFO, NNSA/HQ, and DOE/EM/HQ have an uncompromised commitment to ensure compliance with Department of Transportation (DOT) packaging and transportation laws and regulations. This commitment is reflected in the NNSS Waste Acceptance Criteria (WAC). Container quality requirements can be found throughout the document with Section 2.4 specifically citing container integrity deficiencies as a reason to suspend a generator's NNSSWAC program. Prior to the next revision to the NNSSWAC, the NFO with its contractors and generator community will review the existing requirements concerning container integrity and security to determine if there are areas for improvement.

- *Increase unannounced visits to generators*

The NFO agrees that completely unannounced visits to generators should be considered. Unannounced visits have been conducted in the past, and will be considered when developing upcoming facility evaluation schedules. However, there are factors affecting the viability of scheduling this type of visit including security access, work control requirements, and safety. I would like to clarify that the facility evaluation schedule is currently not made available to the generators. As such, the current practice of providing a 7-day notice for a surveillance and 30-days for an audit still provides RWAP auditors an opportunity to "catch" the generators "off-guard" while making the most effective use of the RWAP team's time (historic unannounced visits resulted in the loss of valuable evaluation time because contacts were not available and/or access was delayed).

- *Review the process for assessing shipping and routing information from the transportation company to ensure that it provides robustness and confidence in NNSS waste transportation information.*

The NFO agrees that the process for assessing shipping and routing information should be reviewed, and proposals for additional verification activities will be solicited at upcoming internal meetings. Any specific suggestions by the Nevada Site Specific Advisory Board (NSSAB) are encouraged. Robust and DOT-compliant shipping and routing requirements are currently included in the NNSSWAC. For example, shipment drivers are currently required to document and certify the accuracy of routes taken. Any violations of the NNSSWAC will automatically result in the issuance of a Corrective Action Request to the generator and may result in suspension of its program to ship waste to the NNSS. It should be noted that the shippers contracted by the generators to transport waste were qualified through a national program that provides a framework for selection of responsible, effective, and efficient motor carriers.

I want to express my gratitude to the NSSAB for its recommendations regarding this work plan item. Please feel free to follow-up to our response with specific suggestions relating to your recommendations.

If you have any questions, please feel free to contact Robert F. Boehlecke at (702) 295-2099.



Scott A. Wade
Assistant Manager
for Environmental Management

EMO:10869.RB

cc via e-mail:

D. A. Borak, DOE/HQ (EM-3.2)
M. R. Hudson, DOE/HQ (EM-3.2)
E. B. Schmitt, DOE/HQ (EM-3.2)
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NFO Read File