Nevada Site Specific Advisory Board

Full Board Meeting
Wednesday, May 16, 2012

In this folder…

1) 05/16/12 Draft Agenda
2) Attendance Spreadsheet
3) Frenchman Flat Response Plan briefing
4) Groundwater Contamination Containment/Removal briefing
5) WCTA Liaison Survey Results
6) DOE Response to Long-Term Monitoring Request
7) Draft Membership Recommendation
8) DOE Response to FY 2014 Budget Prioritization
9) DOE Response to U233 Recommendation
10) EM SSAB Chairs Recommendation
11) WM Open House Flyer
12) Las Vegas Review-Journal Letters to the Editors

NSSAB MEETING ATTENDANCE

Full Board Meetings

FY 2012

October 2011 through September 2012

Name	10/12/11	1/18/12	2/15/12	3/21/12	5/16/12	7/18/12	9/19/12	Maximum Terms Limit
MEMBERS								
Kathleen Bienenstein	✓	✓	✓	✓				2014
Matthew Clapp	✓	✓	✓	✓	E			2017
Daniel Coss	✓	✓	✓	✓				2017
Thomas Fisher	✓	✓	✓	✓				2017
Arthur Goldsmith	✓	✓	✓	✓	E			2017
Donna Hruska	✓	✓	✓	✓				2016
Robert Johnson	✓	✓	✓	✓				2012
John McGrail	✓	✓	✓	✓				2014
Barry LiMarzi	✓	✓	✓	✓				2017
Gregory Minden	✓	✓	✓	✓				2016
Michael Moore	✓	✓	✓	✓				2016
Michael Voegele	✓	✓	✓	RS				2016
James Weeks	✓	✓	✓	E				2013
Walter Wegst	✓	✓	✓	✓				2012
Mitzie Wilson	✓							2017
LIAISONS								
Cielomina Gumabon	✓	½		½				2012
John Klenke		✓	✓	✓				
Phil Klevorick	✓	✓	✓	✓				
Justine Leavitt	✓	✓		½				2012
Tim Murphy	✓	✓	✓	✓				
Genne Nelson		✓	✓					
Scott Wade	✓	✓	✓	✓				

Key:

√ = Present

E = Excused U = Unexcused

RM = Removed RS = Resigned

Frenchman Flat – Response Plan

Greg Ruskauff
Modeling Manager, Navarro-INTERA LLC

Nevada Site Specific Advisory Board Meeting

May 16, 2012

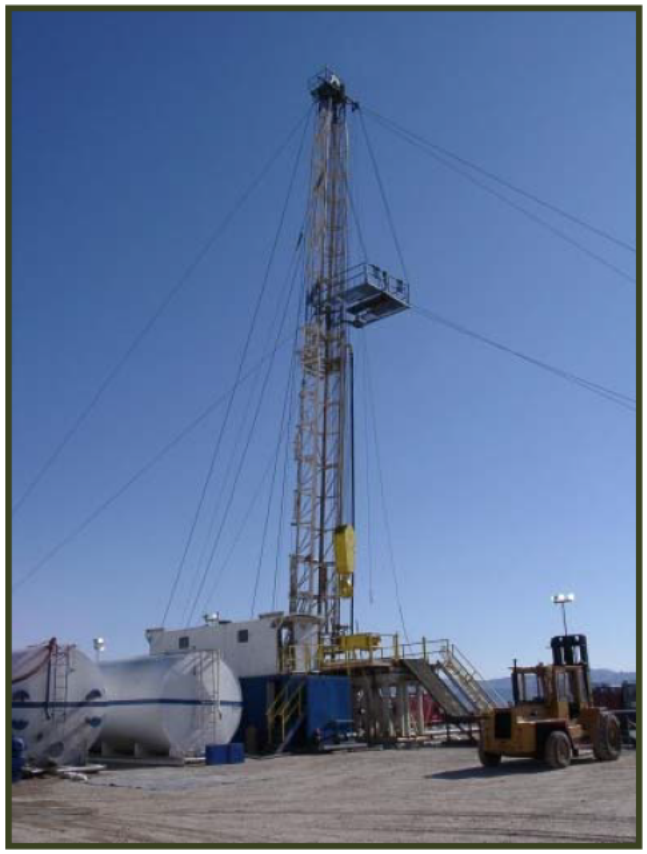
Background

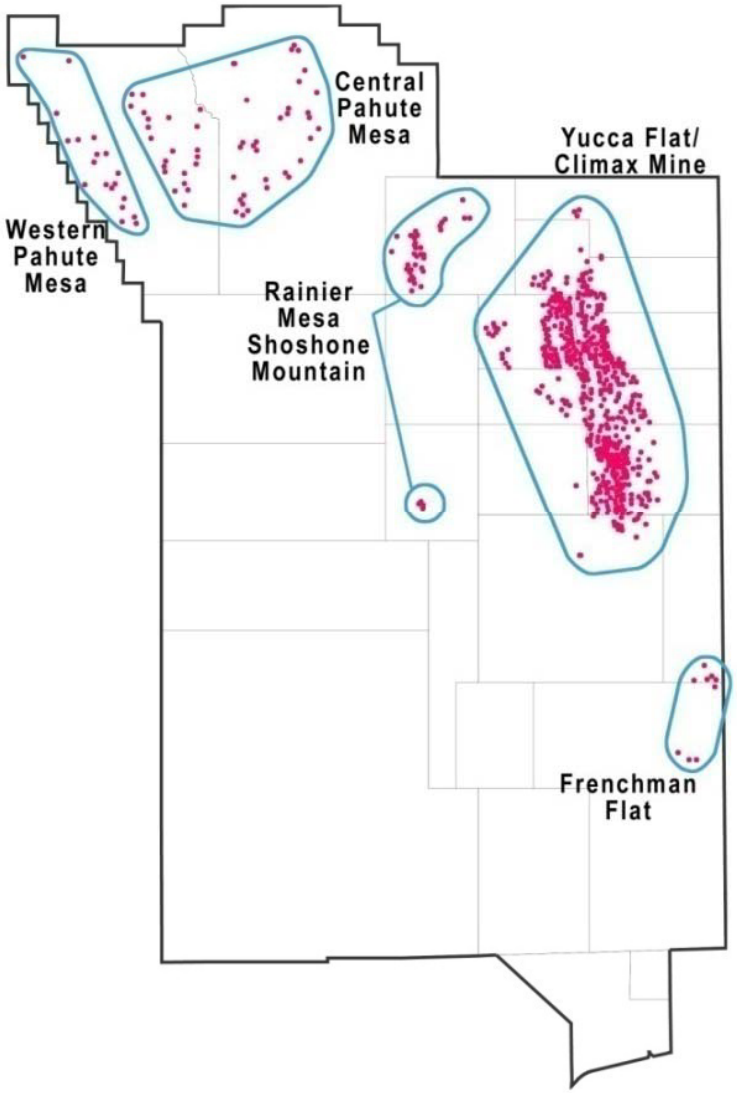
- 1951 to 1992: United States government conducted 828 underground nuclear tests at the Nevada National Security Site (NNSS) at depths ranging from approximately 90 to 4,800 feet below the ground surface
- About one-third of these tests occurred in, near, or below the water table, which resulted in some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

Background
(continued)

- UGTA evaluates the historic testing impacts on groundwater resources and studies the extent of contaminant migration

- UGTA routinely works with the National Nuclear Security Administration, which is responsible for monitoring groundwater for regulatory compliance





- Each Corrective Action Unit must go through the following steps:
  - Corrective Action Investigation Plan
  - Corrective Action Investigation
  - Corrective Action Decision Document/Corrective Action Plan
  - Closure Report

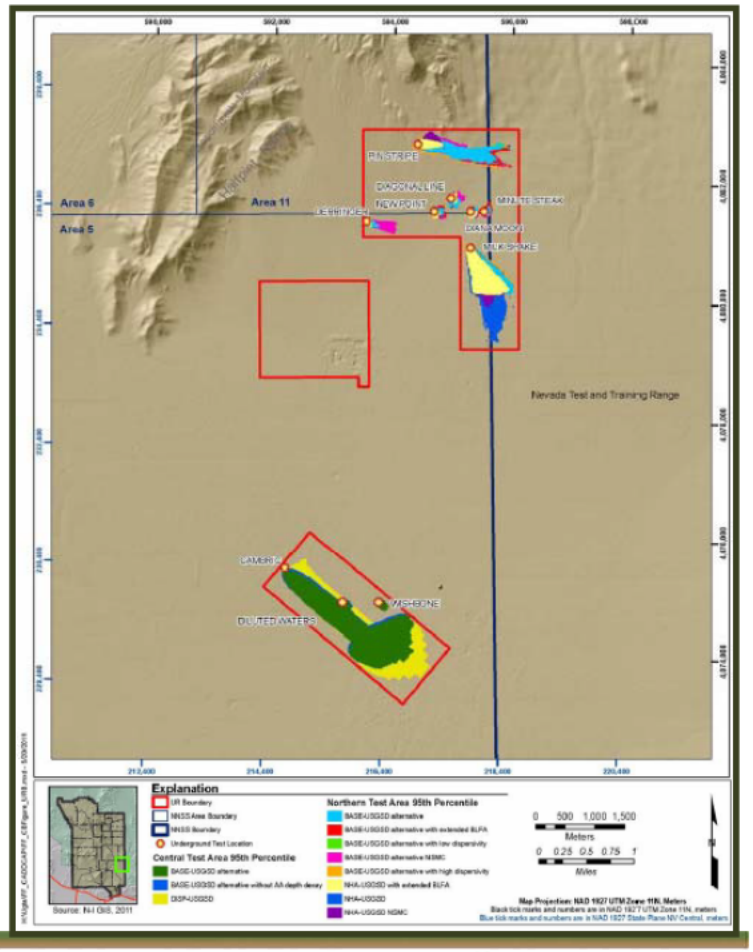
Frenchman Flat CAU

- Independent Peer Review of the contaminant transport model completed
- Overall results of the external peer review were positive with the panel concluding the UGTA studies for the Frenchman Flat CAU "… should proceed to the next stage with an emphasis on monitoring studies."
- Model accepted by State of Nevada Division of Environmental Protection (NDEP)
- Completed and received approval from NDEP on the *Corrective Action Decision Document/Corrective Action Plan (CADD/CAP*) – the first for UGTA*

*CADD/CAP – required document that includes description of investigation activities, findings, and plan of action

Establishing Boundaries

- **Contaminant boundary**
  - Re¸ resents maximum extent¸ at an¸ time within 1,000 years, of groundwater contaminated above Safe Drinking Water Act
  - Radionuclide migration within 1,000 years is limited by radioactive decay and adsorption
- **Subsurface use restriction boundaries**
  - Prevents deep subsurface excavation/penetration including the use of and exposure to potentially contaminated groundwater for purposes other than environmental investigations
  - Area 5 RWMC included within boundary



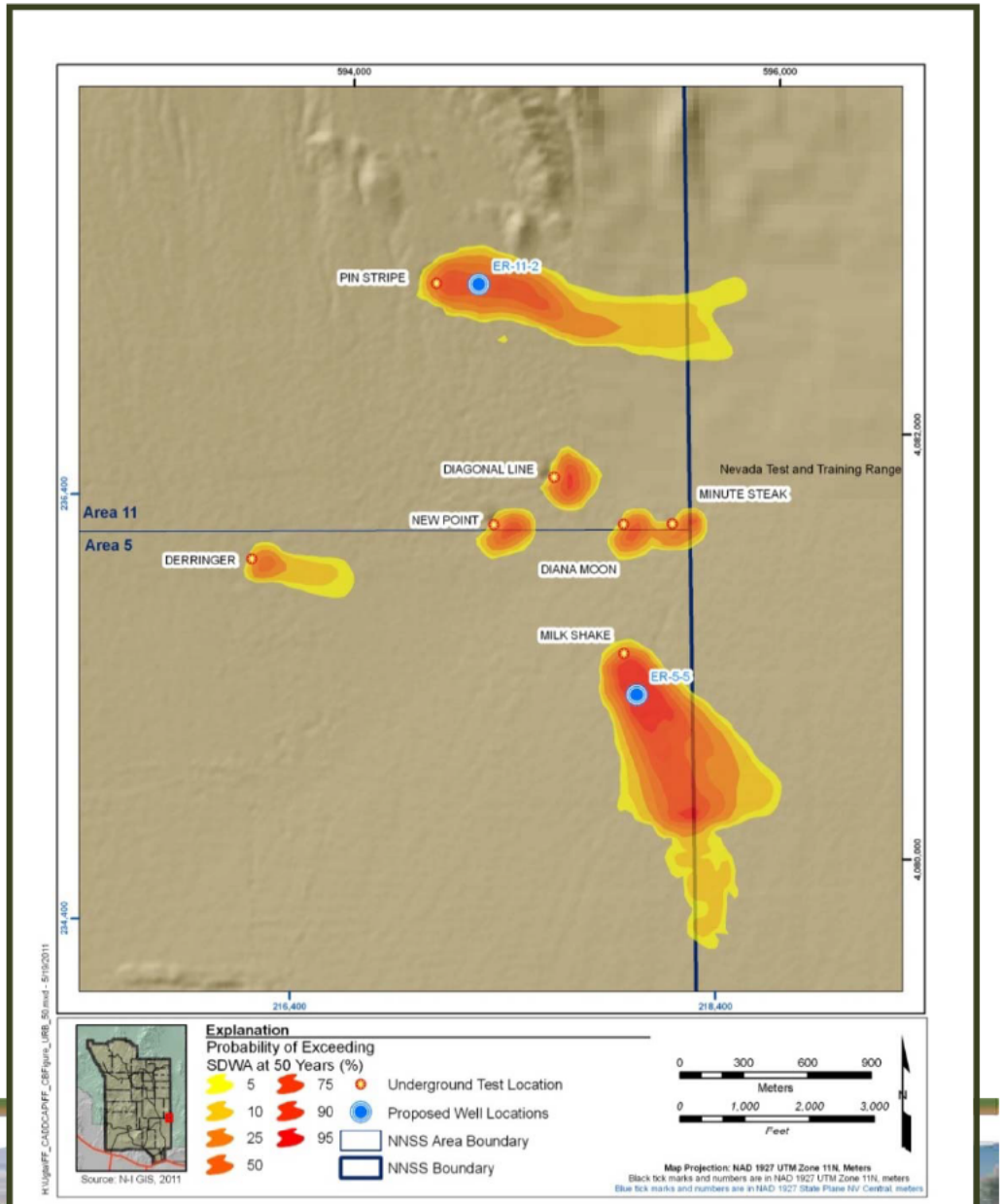
Establishing Boundaries
(continued)

- **Regulatory boundary**
  - Must be negotiated/established between Nevada Site Office and NDEP
  - Preliminary regulatory boundary negotiated with NDEP during the CADD/CAP stage, finalized in the Closure stage
  - Identifies where corrective actions would be required to ensure protection to the public and environment from exposure to groundwater contaminated by underground nuclear tests on the NNSS

Frenchman Flat Well Sites

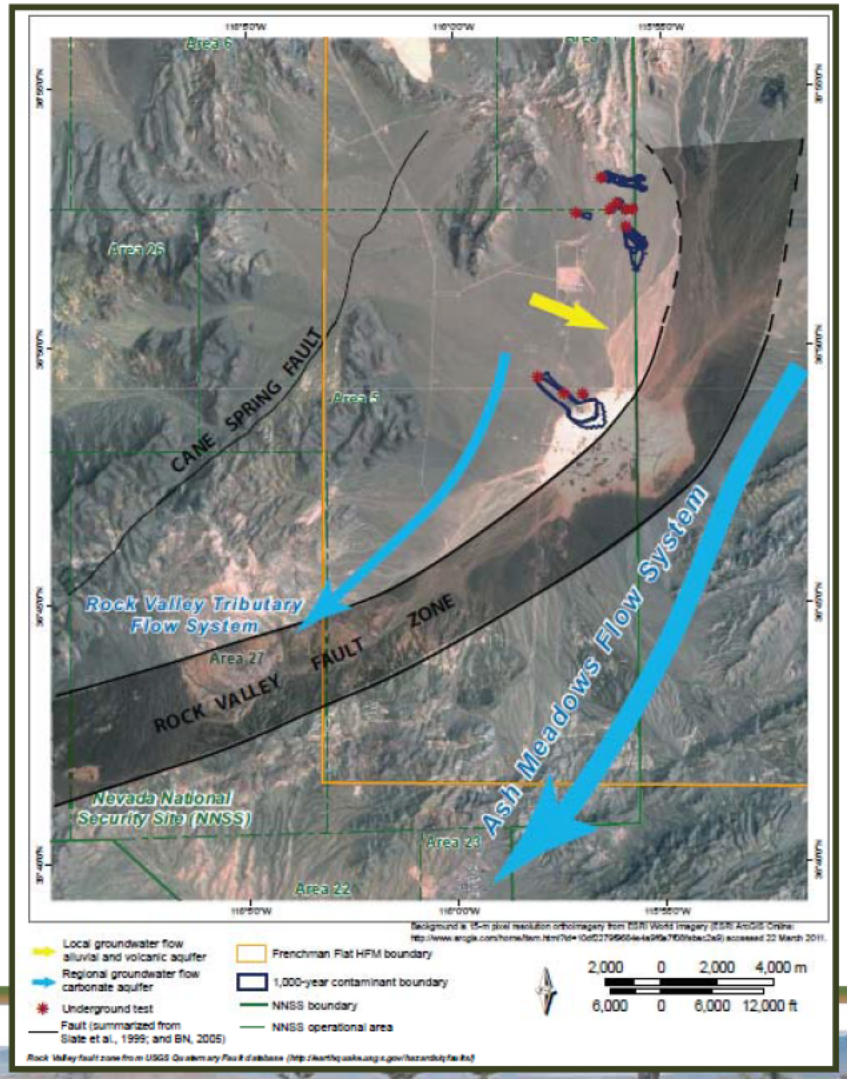
Drill two Model Evaluation Wells (i.e., wells used to collect additional data to test/refine models)

- ER-5-5 – July - August 2012
- ER-11-2 – August – September 2012
- Planned Surface Magnetic Surveys
- Water-level measurement program defined and implemented



Frenchman Flat Regulatory Boundary

- The Frenchman Flat basin drains into the lower carbonate aquifer and off the NNSS through the Rock Valley fault system
- Regulatory objective is to protect public water supplies down stream of the Rock Valle_ fault s_ stem from radionuclide contaminated groundwater



Frenchman Flat Regulatory Boundary
(continued)

- Final regulatory boundary will be negotiated with the State of Nevada Division of Environmental Protection and documented in the Closure Report
- If radionuclides reach the regulatory boundary, DOE will be required to submit an Response Plan to NDEP for approval to meet the specific CAU regulatory boundary objectives

NSSAB Work Plan

- From a community perspective, provide DOE a recommendation regarding:
  - If NDEP determines there is a need for a Frenchman Flat Response Plan what should be included in it?

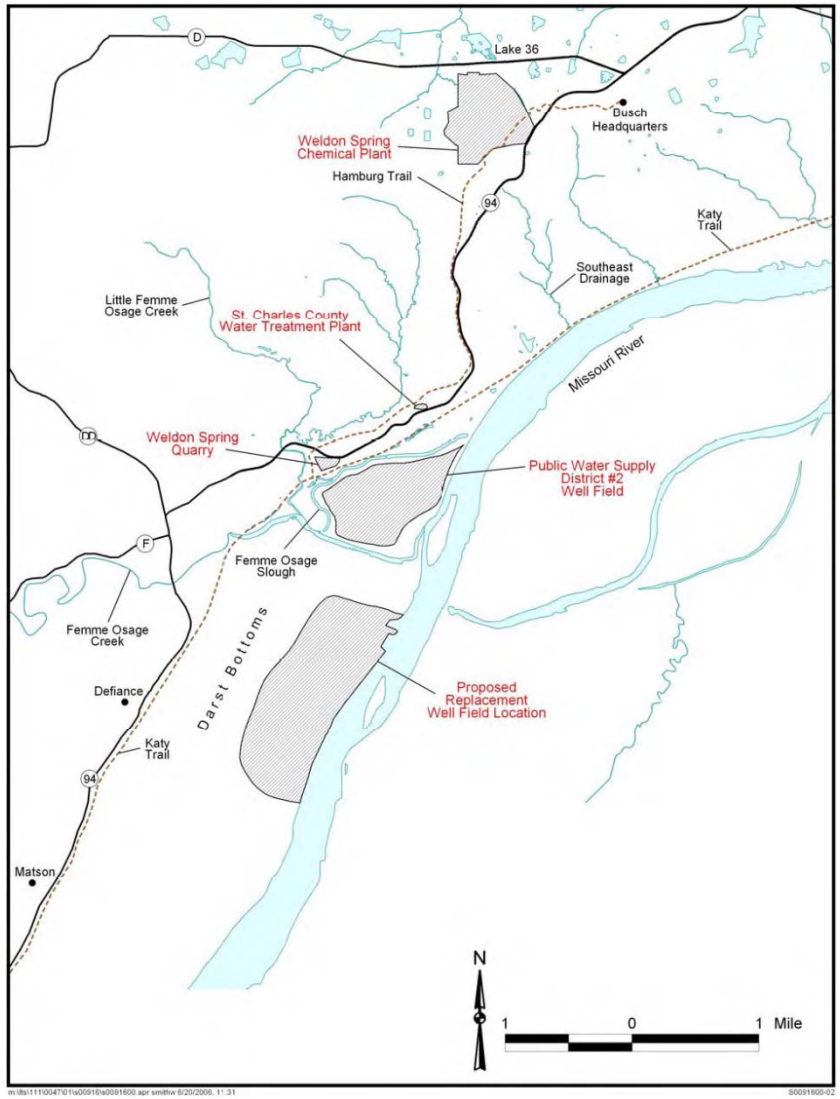
What is a Formal Response Plan?

- Document explaining how DOE would respond in the event of a specific condition in order to streamline decision making
- Potential UGTA Response Plans would be CAU specific
- Examples include:
  - Contamination of public water supply wells (Weldon Spring, MO)
  - Offsite soil contamination migration, general institutional control issues (Rocky Flats, CO)
  - Conceptual plan (Fernald, OH)

Response Plans – Weldon Spring, MO

- Site formerly used to manufacture explosives and process uranium-ore concentrates
- Specific condition: Contingency to provide water production if migration of contaminants affects municipal well field capacity
- Examples of DOE response includes:
  - Selection of alternate water supply source
  - Plan for characterizing water supply source
  - Developing design criteria for design/construction of water supply source infrastructure

Proposed replacement of well field location – Weldon Spring, MO



Response Plans – Rock¸ Flats¸ CO

- Site used to manufacture nuclear weapons components
- Rocky Flats Legacy Management Agreement describes reportable conditions that warrant mitigation and outlines the response
- Specific Condition:
  - Exceedances of surface water standards at surface water and groundwater monitoring locations
  - Evidence of significant erosion in areas of residual subsurface contamination
  - Evidence of adverse biological conditions
  - Conditions affecting the effectiveness of the landfill covers
  - Evidence of violation of the institutional controls
  - Physical control failure that adversely affects the remedy
  - Other abnormal conditions that adversely affect the remedy

Response Plans – Rock¸ Flats¸ CO
(continued)

- Examples of DOE response includes:
  - Within 30 days of receiving inspection reports or validated analytical data documenting a reportable condition, DOE will submit a plan to Colorado Dept. of Public Health and Environment (CDPHE) and a schedule for an evaluation to address the condition
  - DOE will consult CDPHE as described in the RFLMA to determine if mitigating actions are necessary. Final plans and schedules for mitigating actions, if any, will be approved by CDPHE in consultation with EPA
  - DOE is not, however, precluded from undertaking timely mitigation once a reportable condition has been identified

Response Plans – Fernald, OH

- Site used for uranium processing
- Provides conceptual steps to evaluate and correct significant concerns:
  - Preliminary assessment of the situation
  - Development of a technical approach and work plan
  - Identification of alternatives
  - Evaluations of alternatives
  - Identification of the preferred alternative
  - Public involvement
  - Selection of the corrective action/response action alternative
  - Implementation of the selected alternative
- Response action would be conducted under CERCLA in consultation with EPA and Ohio EPA

Frenchman Flat Response Plan

- The Response Plan will identify what steps will be taken if contamination goes beyond the regulatory boundary
- It is unlikely that such a plan would be invoked for Frenchman Flat due to limited transport distance relative to the regulatory objective
- A response plan developed today may not be useful without periodic revision as we collect more data

Frenchman Flat Response Plan
(continued)

- What needs to be done before DOE can develop a response plan?
  - Drill monitoring well(s) and collect monitoring data ¸scheduled for summer 2012¸
  - A final regulatory boundary must be agreed to by DOE and NDEP (must be decided before Closure Report date of June 2015)

NSSAB Work Plan

- From a community perspective, provide DOE a recommendation regarding:
  - If NDEP determines there is a need for a Frenchman Flat Response Plan what should be included in it?

Evaluation of UGTA Remedial Alternatives (Containment Removal Options)

Irene Farnham, PhD
Navarro-INTERA LLC

Nevada Site Specific Advisory Board Meeting

May 16, 2012

Outline

- Background
- Evaluation of Selected Remedial Alternatives (DOE/NV, 1997)
  - Technical Peer Review of Nevada National Security Site (NNSS) Groundwater Remediation Strategy (ASME/RSI, 2001)
- UGTA Strategy
- Remediation at other DOE sites
  - Hanford, Savannah River, Idaho National Laboratory, Los Alamos National Laboratory, Oak Ridge Reservation, Paducah Gaseous Diffusion Plant

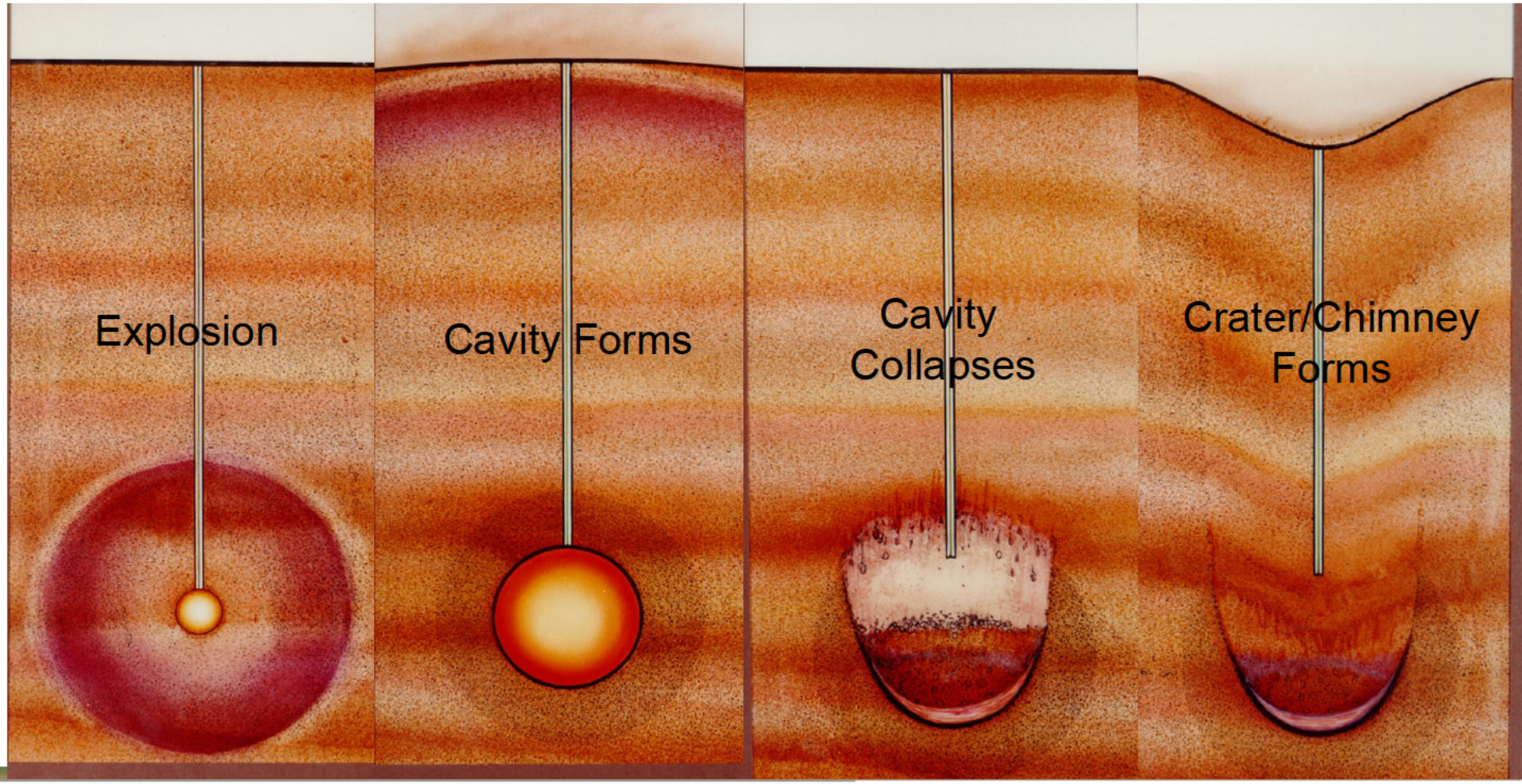
Purpose

- From a community perspective, provide a recommendation to DOE regarding whether the DOE should:
  - Accept evaluation / results of DOE/NV (1997) with option to revisit decision at a later stage in strategy;
  - Re-evaluate DOE/NV (1997) remedial alternatives and approach; or
  - Perform a new evaluation of remediation alternatives [e.g., evaluate alternatives not considered in DOE/NV (1997)]

Background

- 828 underground nuclear tests conducted at the Nevada National Security Site (NNSS) 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 is several hundred to more than 2,000 feet below the ground surface
- There are 43 radionuclides produced during nuclear tests in sufficient abundance, and with long enough half lives to be considered a potential risk. Dominant radionuclides are tritium, carbon-14, iodine-129, chlorine-36, technetium-99, plutonium, cesium and strontium-90

Stages of an Underground Nuclear Test



Alternatives Considered (DOE/NV, 1997)

- No Further Action
- Institutional Controls
- Intrinsic Remediation (or natural attenuation)
- Pump and *In Situ* Treatment
- Excavation and Onsite Disposal

Evaluation Criteria

- Short-term effectiveness
- Technical Feasibility
- Cost
  - RS Means (1996) – 1st quarter 1996

No Further Action

- *No Action* means no remedial action or contaminant source degradation considered
  - Allowed only if lifetime cancer risk is less than 1 in 10,000 and contaminants are below *Safe Drinking Water Act* standards
- *No Action* is <u>not</u> a viable alternative for the NNSS
  - Lifetime probability of contracting a fatal cancer exceeds the allowable risk and contaminants have been detected above standards in a few wells within the boundaries of the NNSS

Institutional Controls

- Passive
  - Permanent markers
  - Public records and archives
  - Government ownership and regulations for land or resource use
  - Other methods of preserving knowledge

- Active
  - Controlling access by means other than passive
  - Performing maintenance or remedial actions
  - Controlling or cleaning up releases from a site
  - Monitor parameters related to system performance

Institutional Controls
(continued)

- Institutional controls (passive and active) in place at NNSS for over 50 years
- Public is aware of government control of site and the related risk. This “Institutional Memory” suggests such controls could continue indefinitely
- Cost associated with access control (security guards) and infrastructure maintenance (perimeter fences) is estimated as 881 million over 50 years

Intrinsic Remediation

- Relies on natural subsurface processes to reduce contaminant concentrations to acceptable levels
  - Decay
  - Dilution
  - Adsorption
  - Chemical reactions
- Groundwater flow and transport models are used to forecast the potential extent, concentration, and migration of radionuclides
- Groundwater monitoring used to ensure that intrinsic remediation is occurring at rates sufficient to protect human health and the environment

Intrinsic Remediation (continued)

- Value of Information Analysis (VOIA)
- Data collection, if justified by the VOIA
- Data analysis to prepare modeling datasets
- Modeling to establish the contaminant boundary
  - Groundwater volume with 95 percent or greater probability of exceeding the Safe Drinking Water Act MCLs
- Design the well network for compliance monitoring
- 5-year monitoring* to demonstrate compliance
- Close CAU* and develop post-closure plan for 50-year monitoring

*These activities have been recently modified

Intrinsic Remediation (continued)

- Fundamental Assumption: Radionuclide movement will be contained so that the contaminant boundary remains within a few kilometers of each CAU
  - Daniels (1993), GeoTrans (1995) and Rehfeldt (1996) predict that no measurable tritium will reach areas that are not presently controlled by the DOE or the U.S. Air Force

Intrinsic Remediation Cost

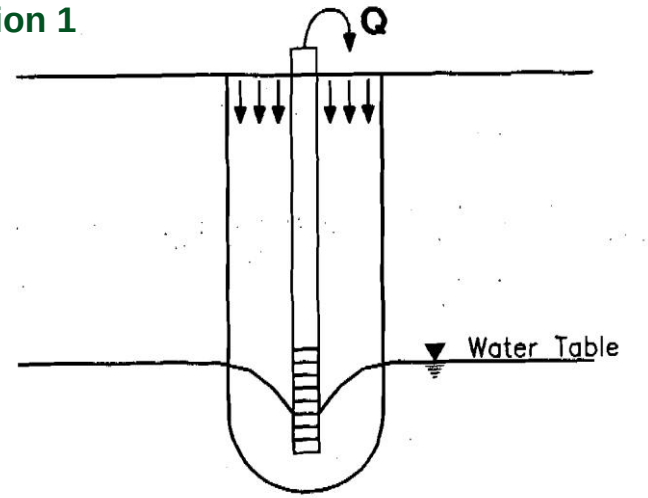
Technical Decision	Cost (10 Million Dollars)
Assess existing data and develop a preliminary conceptual model	12.6
Model CAU and verify results with existing/new data	16.2
Use modeling results to assess whether Intrinsic Remediation is achievable	11.5
Assess whether intrinsic remediation passes initial technical and regulatory screening on definition of contaminant boundaries	120.5
Prepare draft CADD	17.2
Assess need for contaminant control	14.0
Develop CAP/Monitor Plan for five years	5.3
Implement closure approach	24.1
Total Cost with 5 Years of Monitoring	221.5
Total Cost with 50 Years of Monitoring	239.8

Pump and *In Situ* Treatment

- Recovery wells and *in situ treatment by* injection through the unsaturated zone of nuclear chimney
  - Recovery well within nuclear chimney (Option 1)
  - Recovery well outside nuclear chimney (Option 2)
  - With and without radionuclide removal before reinjection
- Withdraw uncontaminated groundwater up-gradient from tests, transport downgradient, and re-inject as artificial recharge (Option 3)

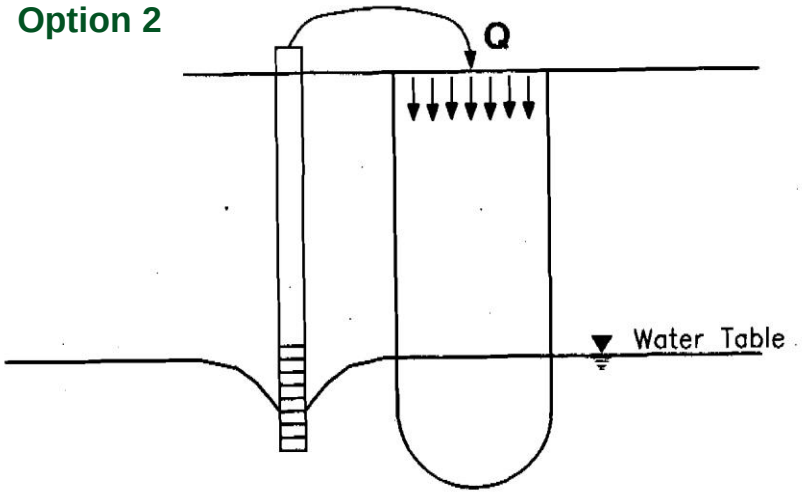
Recovery wells with *in situ* Treatment

Option 1



Establish capture zone

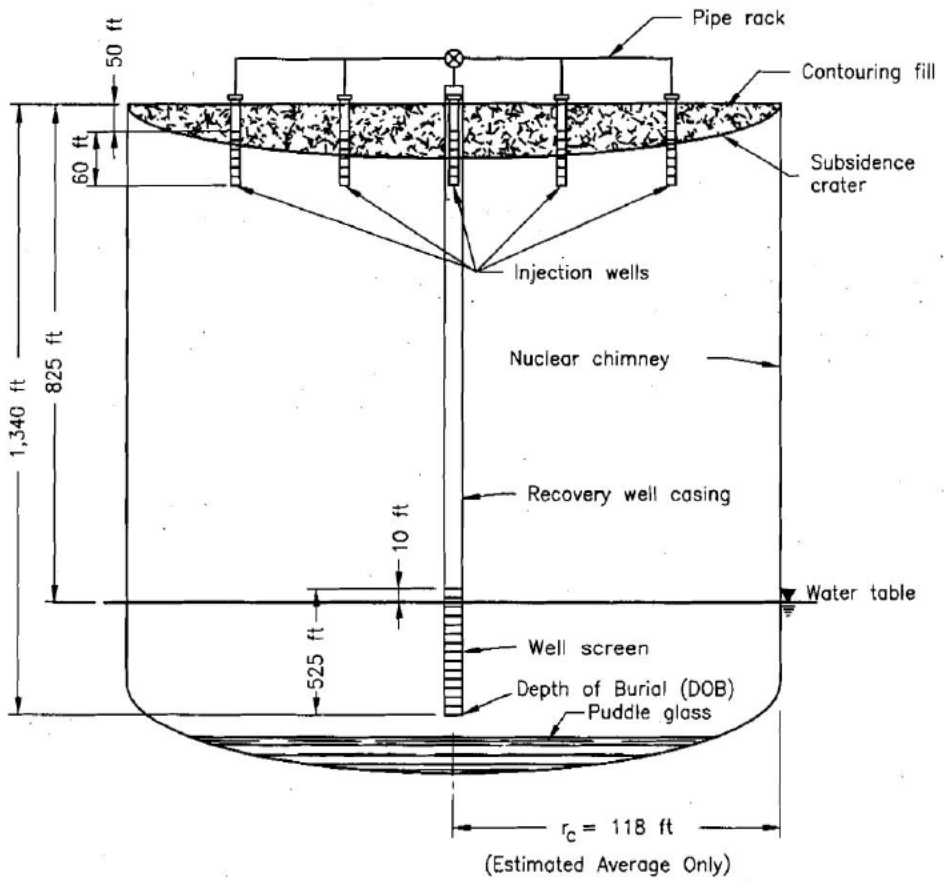
Option 2

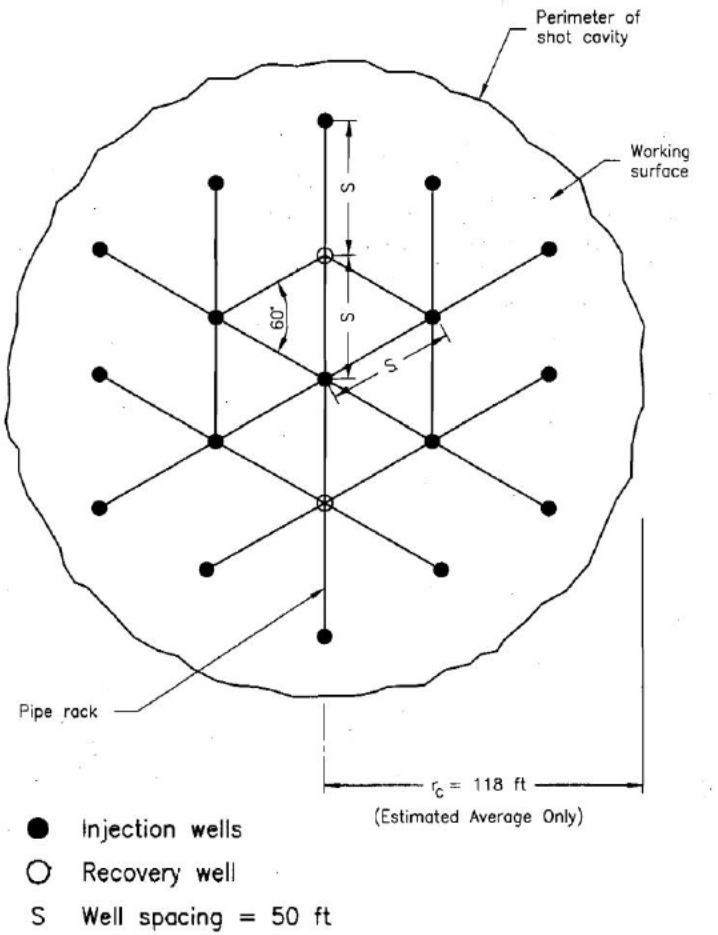


Establish hydraulic control

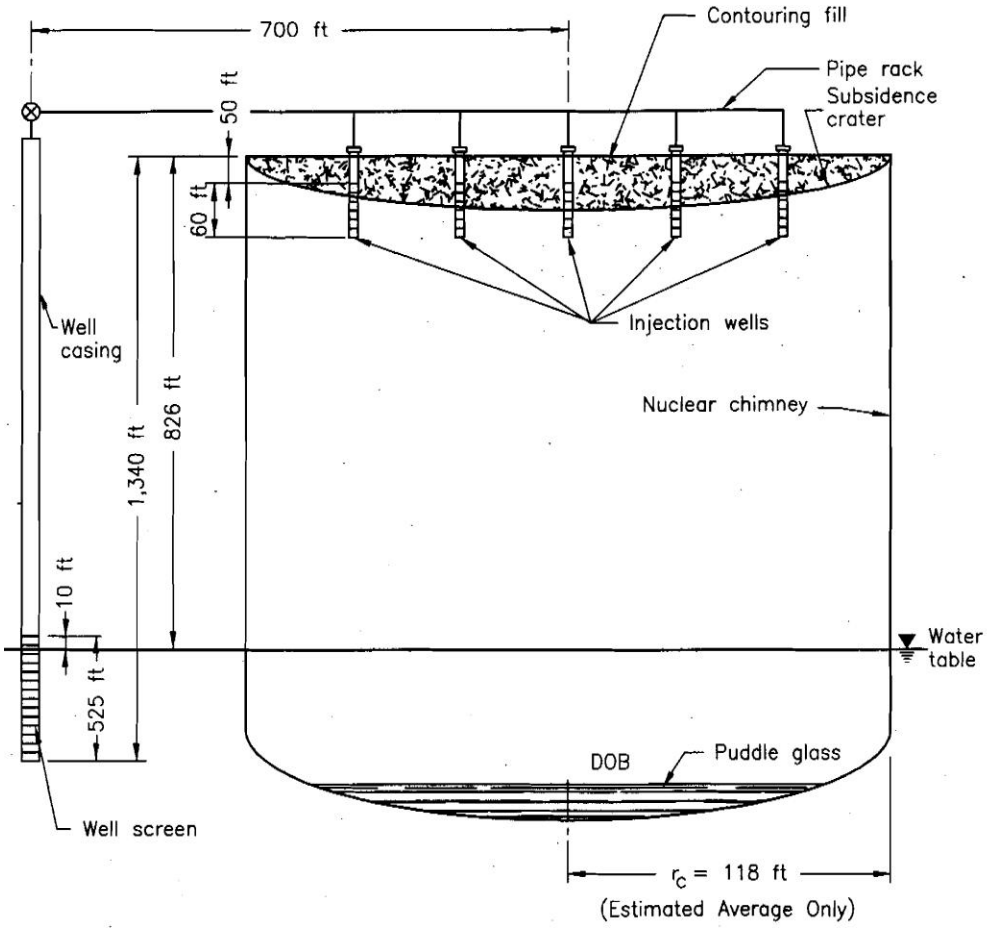
- **Recovery wells drilled to the depth of burial**
- **Evaluated tests that occurred blow the water table**

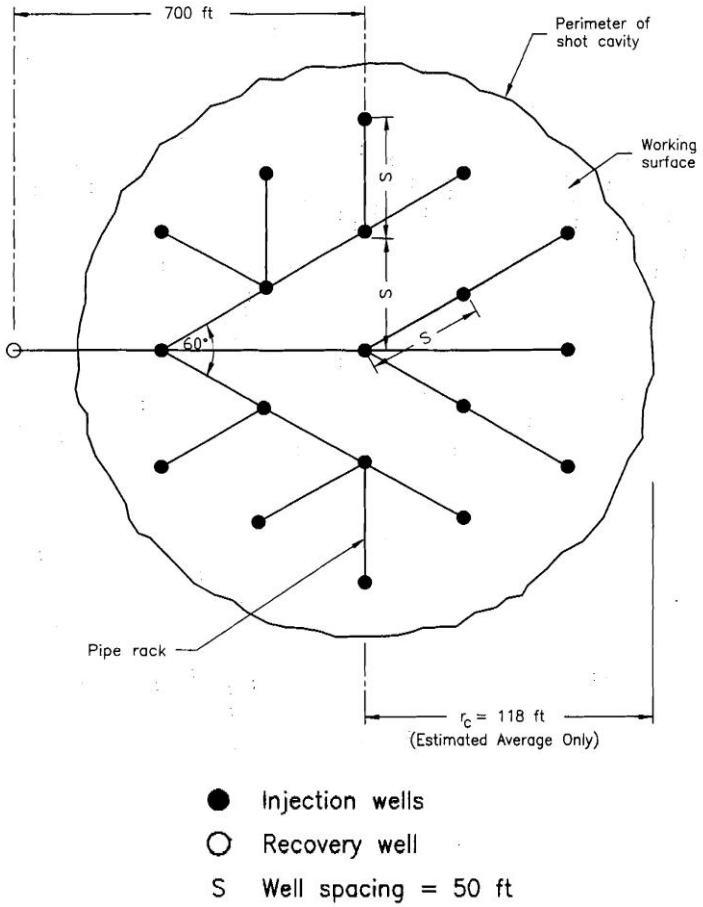
Option 1 for Frenchman Flat





Option 2 for Frenchman Flat





Pump and *In Situ* Treatment

- Holds promise for radionuclides with short half-lives or those with high retardation coefficients
- Forced infiltration of Tc-99 and I-129 failed to decrease their concentrations over the course of 1,000 years
- Only tritium, because of its short half-life, shows significant attenuation, and even tritium requires about 220 years of pump and treatment within the nuclear chimney

Withdrawal and Artificial Recharge (Option 3)

- Withdrawal of clean water thus avoiding construction of wells in contaminated areas
- Evaluation includes:
  - Preliminary feasibility study and conceptual design
  - Field investigation and test program
  - Design and construction of withdrawal, pipeline transport, and recharge facilities
- Estimated 216 recovery wells and 374 injection wells required
- Pretreatment of groundwater before recharge to reduce clogging problems

Cost Estimates (R.S. Means, 1996)

- Option 1: $2.4 billion (wells) and $2.5 billion (wicks)
- Option 2: $1.3 billion (wells) and $1.4 billion (wicks)
- Option 3: $2.5 billion
- Costs do not include those for site characterization work or monitoring
- Ex situ treatment of groundwater before reinjection may be required for Options 1 and 2.
  - Typical costs as high as $5 per 1,000 gallons for treatment (not including disposal costs) adding additional costs of $294 million per year (over $14.7 billion for 50 years).

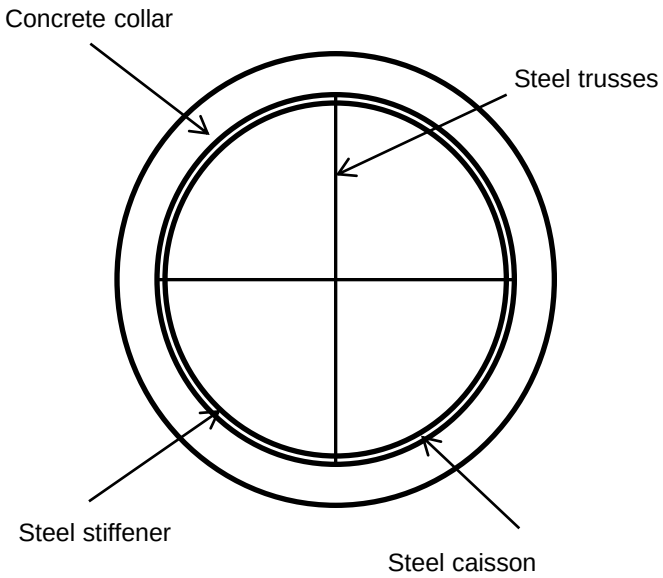
Health and Safety

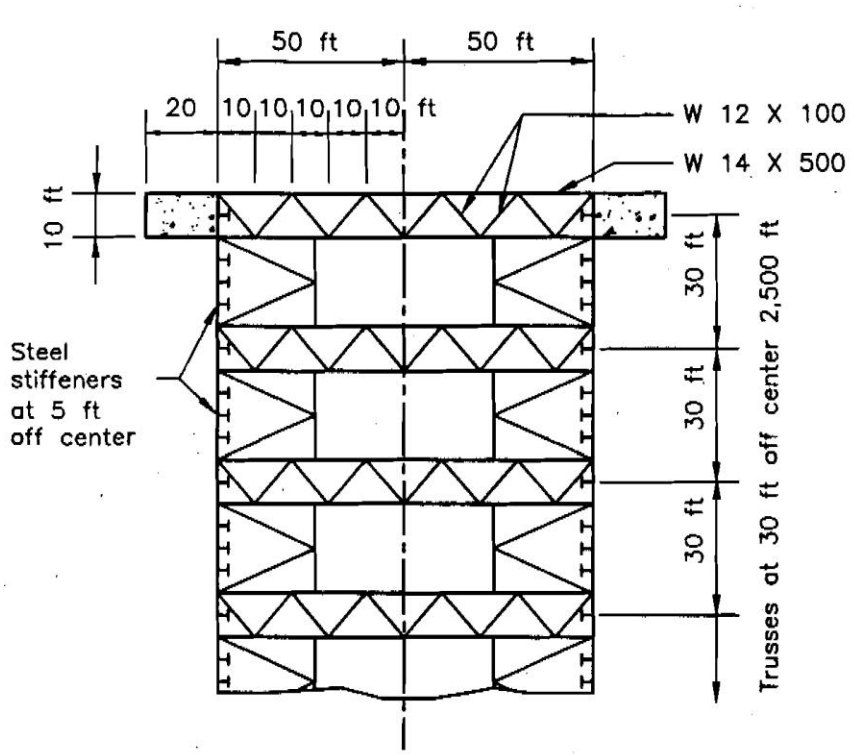
- Option 3 has least risk
  - Not constructing wells within contaminated areas
  - Fewer wells means fewer risks due to construction equipment accidents
- Option 1 and 2 greater risk
  - At a minimum, workers exposed to radiation fields from groundwater flowing through pipes and other system components
  - At a maximum, filters used for treatment can concentrate radioactive particulates producing radiation fields with doses over 15,000 mrem/h along their length. Either 3 ft concrete or 1 ft steel necessary to shield to a safe level

Excavation and Onsite Disposal

- Contaminated soil and rock are excavated from the nuclear test chimneys.
- Treatment techniques such as ion-exchange, reverse osmosis, precipitation or evaporation, or settling basins are applied.
- Residual waste is placed back into excavation through construction of an on-site disposal cell.
  - Braced-shaft excavation
  - Open-pit mine

Braced-Shaft Excavation

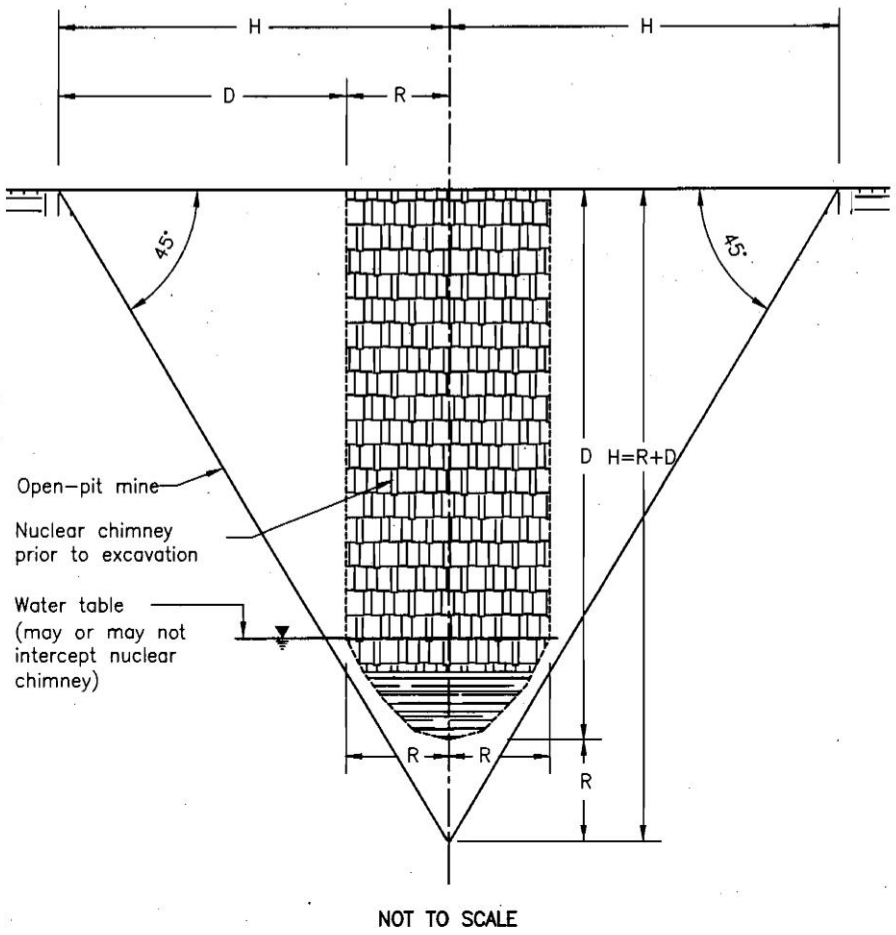




Braced-Shaft Excavation (continued)

- Radionuclides in the excavated debris are removed by physical and chemical treatment
- Excavated shaft serves as an engineered barrier to help contain residual radioactive waste remaining after debris washing
- Bentonite is mixed with the residual radioactive waste and placed in the excavated shaft to inhibit radionuclide release
- Cost estimate (at least $3.7 trillion dollars) is based on total volume being excavated, cost of removing radionuclides from debris, and the polyethylene encapsulation. Cost estimated as $0.5 trillion if the excavated radioactive debris was not treated with physical and chemical extraction
- The exorbitant costs and immediate health and safety issues render this alternative as unfeasible

Open-Pit Mine



LEGEND

Highly fractured rock

Puddle glass

R = Radius of Nuclear Chimney
Maximum Radius = 400 feet

D = Depth of Nuclear Chimney
Maximum Depth = 4,800 feet

H = Height of Open–Pit Mine

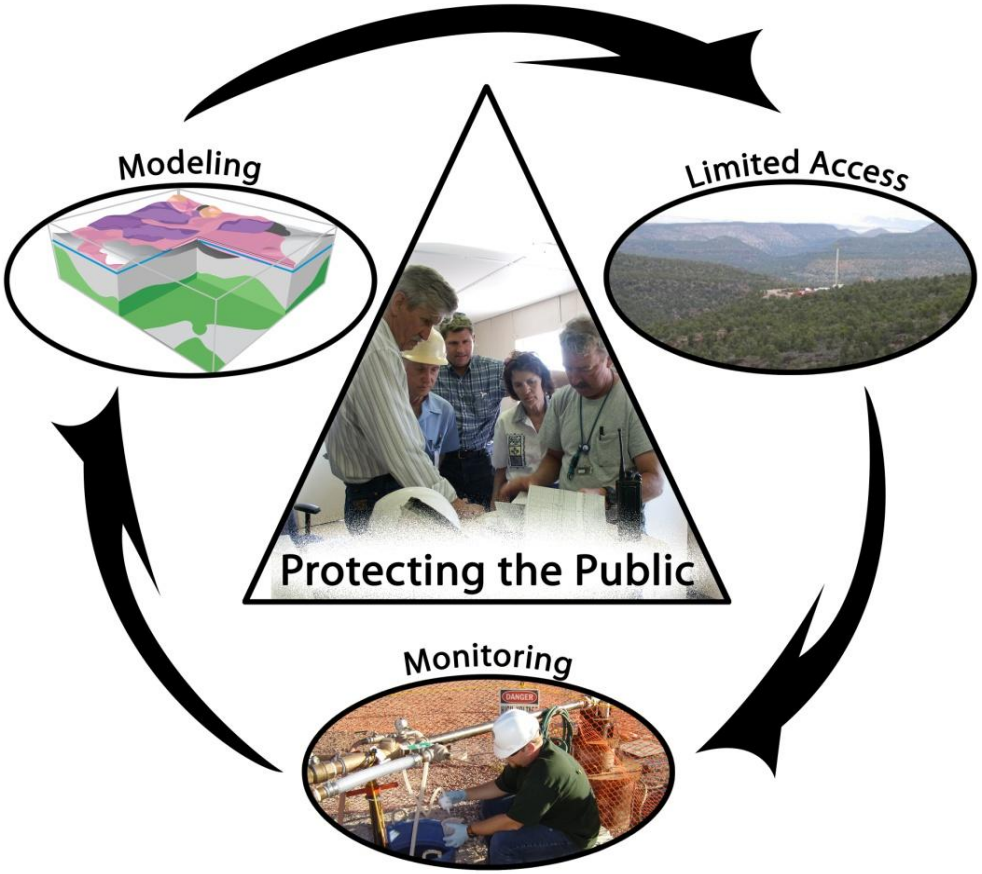
Open-Pit Mine (continued)

- Radionuclides in the excavated debris are removed by physical and chemical treatment
- Residual radioactive waste solidified and encapsulated with polyethylene to inhibit radionuclide release
- Requires removal of far more soil and rock then the brace-shaft excavation
- Cost estimate (at least $6.2 trillion dollars) is based on total volume being excavated, cost of removing radionuclides from debris, and the polyethylene encapsulation. Cost estimated as $3.2 trillion if the excavated radioactive debris was not treated with physical and chemical extraction
- The exorbitant costs and immediate health and safety issues render this alternative as unfeasible

Summary

- Passive alternatives (such as intrinsic remediation and institutional controls), while costly, hold the most promise for achieving the goals of using the site to contain the contaminated groundwater
- Pump and *In Situ* Treatment, although technically feasible, is more costly, and does not address waste contaminated within the water table. Applied in perpetuity for radionuclides with long half lives
- Excavation and On-site disposal may be technically feasible, but cost is exorbitant, and high cancer/radiation and industrial accident risks are imposed on workers

UGTA Tripartite Closure Strategy
Intrinsic Remediation with Institutional Controls



Technical Peer Review of Remediation Strategy ASME/RSI (2001)

Has the project team evaluated potential alternatives that address the remediation of groundwater contamination?

- Selection of potential alternatives is comprehensive
- Intrinsic remediation and institutional controls were clearly supported based on cost and maintaining exposure as low as reasonably achievable
- No known “breakthrough technology” reported for remediating radionuclide contaminated groundwater in the five years since evaluation
- Recurrent need for further evaluation of remedial alternatives as new methods are discovered and demonstrated effective

UGTA Strategy Technical basis

- Data collection (including but not limited to drilling, testing, field and laboratory)
- 1,000 year model forecasts of contaminant migration
- Iterative model evaluations and monitoring to build confidence in model forecasts
- Institutional controls to restrict access to contaminated groundwater
- Compliance Monitoring

Hanford Site

- Radioisotope contaminants of concern are:
  - Tritium (59,000 to 1,060,000 pCi/L)
  - I-129 (8 pCi/L)
  - Sr-90 (38 – 8,000 pCi/L)
  - Tc-99 (46,000 – 113,000 pCi/L)
  - Uranium (218 pCi/L)
- Plume depths range from 80 to 300 ft. below ground surface.
- Remediation includes source removal, pump and treat, and natural attenuation depending on unit and contaminant
- Sr-90 entering Columbia River (pump and treatment has stabilized plume but has not significantly reduced contaminant levels); testing phytoremediation and apatite sequestration

Hanford Site (continued)

- Uranium entering Columbia River (natural attenuation not meeting remediation goals)
- Tritium separation and isolation technologies are evaluated periodically to determine their feasibility for implementation to control liquid effluents (DOE, 2009)

Hanford Site, WA

Savannah River

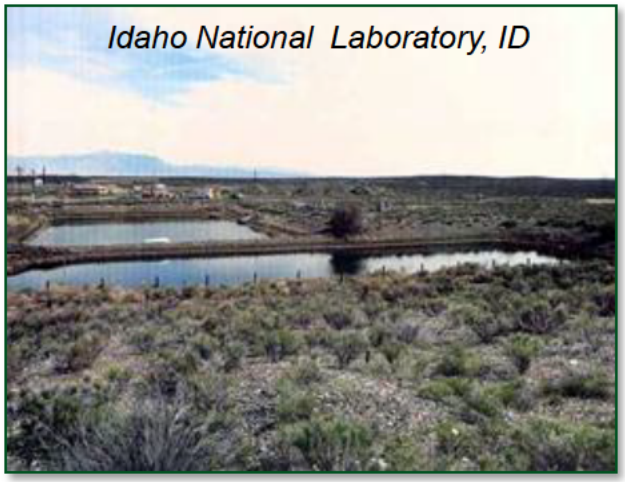
- Radioisotope contaminants of concern are:
  - Tritium (25,000 to 32,000,000 pCi/L)
  - Am (27 pCi/L)
  - C-14 (100 – 460 pCi/L)
  - Cs (130 pCi/L)
  - I-129 (9 - 600 pCi/L)
  - Ra (10 – 140 pCi/L)
  - Sr-90 (16 – 1,000 pCi/L)
  - Tc-99 (180 – 450 pCi/L)
  - Uranium (380 – 1,600 pCi/L)


Savannah River, GA

- Plume depths range from 0 to 70 ft. below ground surface
- Remediation includes source removal, low permeability cap, funnel and gate system, pump and treat, and monitored natural attenuation depending on unit and contaminant

Idaho National Laboratory

- Radioisotope contaminants of concern are:
  - Tritium (7,150 to 13,600 pCi/L)
  - Cs (5,218 pCi/L)
  - I-129 (1 pCi/L)
  - Sr-90 (11 - 3,210 pCi/L)
  - Tc-99 (1,620 pCi/L)
- Plume depths range from 220 to 490 ft. below ground surface


Idaho National Laboratory, ID

- Remediation includes capping and infiltration controls with monitoring, pump and treat, and monitored natural attenuation

Los Alamos National Laboratory

- Radioisotope contaminants of concern are tritium and uranium
- Contaminants are above background but below regulatory cleanup standards
- Plume depths range from 200 to 700 ft. below ground surface
- Characterization in progress. Passive reactive barrier, pump and treat, and monitored natural attenuation are being evaluated

Los Alamos National Laboratory, NM

Oak Ridge Reservation

- Radioisotope contaminants of concern are:
  - Tritium (100,000 to 10,000,000 pCi/L)
  - Co (100 pCi/L)
  - Sr-90 (100 – 100,000 pCi/L)
  - Tc-99 (100 – 15,000 pCi/L)
  - Uranium (10 – 1,000 pCi/L)
- Plume depths range from 0 to 30 ft. below ground surface
- Remediation includes source excavation, transfer to treatment plant, source containment (cap source and divert up gradient water) with monitoring, and pump and treat depending on location and contaminant

Paducah Gaseous Diffusion Plant


Paducah, KY

- Radioisotope contaminant of concern is Tc-99 (140 – 8,800)
- Plumes are 100 ft. below ground surface
- Remediation includes source removal and pump and treat. Residents are provided with an alternative water supply depending on location and contaminant

Decision

- From a community perspective, provide a recommendation to DOE regarding whether the DOE should:
  - Accept evaluation / results of DOE/NV (1997) with option to revisit decision at a later stage in strategy;
  - Re-evaluate DOE/NV (1997) remedial alternatives and approach; or
  - Perform a new evaluation of remediation alternatives [e.g., evaluate alternatives not considered in DOE/NV (1997)]

References

- American Society of Mechanical Engineers and Institute for Regulatory Science. 2001. *Technical Peer Review Report, Strategy for Remediation of Groundwater Contamination at the Nevada Test Sit*e, CRTD-Vol. 62. New York, NY. Daniels, J.I., Ed. 1993. *Pilot Study Risk Assessment for Selected Problems at the Nevada Test Site (NTS),* UCRL-LR-113891.
- GeoTrans, Inc. 1995. *A Fracture/Porous Media Model of Tritium Transport in the Underground Weapons Testing Areas, Nevada Test Site.*
- IT Corporation. 1996, Draft, *Underground Test Area Project, Phase I Data Analysis Task: Transport Model Documentation Package.*
- Office of Engineering & Technology, 2009, Groundwater Contamination and Treatment at Department of Energy Sites, http://www.em.doe.gov/pdfs/Groundwater_Booklet-2009-v5.pdf
- Rehfeldt, K. 1996. "Solute Transport Model." Presentation to the U.S. Department of Energy, Nevada Operations Office, 31 January.
- R.S. Means Company, Inc. 1996. *Means Building Construction Cost Data,* 5th Annual Edition. Kingston, MA.
- U.S. Department of Energy, Nevada Operations Office. 1997. *Focused Evaluation of Selected Remedial Alternatives for the Underground Test Area,* DOE/NV--456. Las Vegas, NV.

253 responses

Summary See complete responses

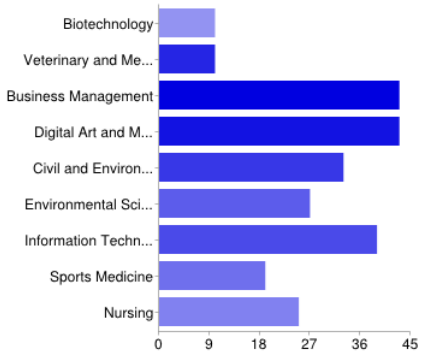
What's your student number?

232152 340184 334484 719787 400655 1187131 1217717 1170639 430542 1005291 340868 1094671 379316 340346 1104752 341663 369051 374002 1037651 506505 427716 340294 395009 1100911 436140

What's your zip code?

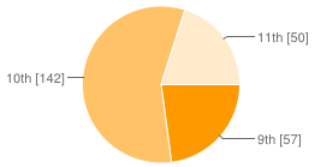
89107 89138 89134 89074 89113 89144 89135 89148 89117 89144 89138 89135 89146 89135 89129 89107 89128 89147 89119 89144 89148 89135 89145 89135 89144 89148 89147 89145 89178 8913

What's your program?



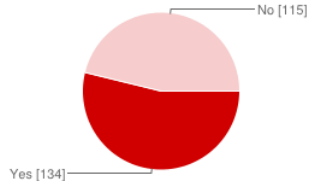
Biotechnology	**10**	4%
Veterinary and Medical Sciences	**10**	4%
Business Management	**43**	17%
Digital Art and Media	**43**	17%
Civil and Environmental Engineering	**33**	13%
Environmental Sciences and Natural Resources	**27**	11%
Information Technology Management	**39**	15%
Sports Medicine	**19**	8%
Nursing	**25**	10%

What grade are you in?



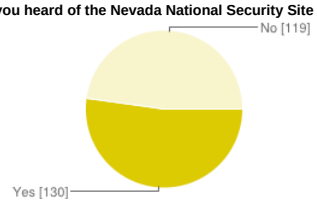
9th	**57**	23%
10th	**142**	56%
11th	**50**	20%

Do you know what the Department of Energy is and what it does?



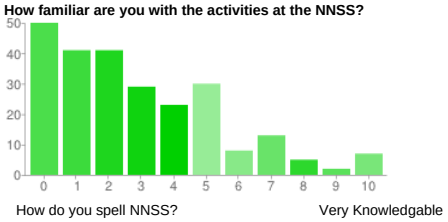
Yes	**134**	53%
No	**115**	45%

Have you heard of the Nevada National Security Site (NNSS) (formerly known as the Nevada Test Site)?



Yes	**130**	51%
No	**119**	47%

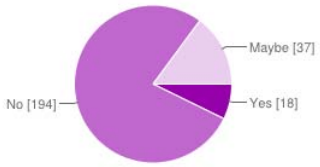
How familiar are you with the activities at the NNSS?



0 - How do you spell NNSS?	**50**	20%
1	**41**	16%
2	**41**	16%
3	**29**	11%
4	**23**	9%
5	**30**	12%
6	**8**	3%
7	**13**	5%
8	**5**	2%

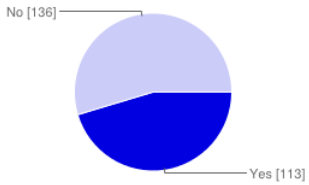
9	**2**	1%
10 - Very Knowledgable	**7**	3%

Do you have family or friend(s) who work or have worked in, or are affiliated with the Site?



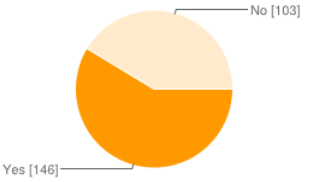
Yes	**18**	7%
No	**194**	77%
Maybe	**37**	15%

Do you want to learn more about the Environmental Management program at the National Nevada Security Site and/or its history?



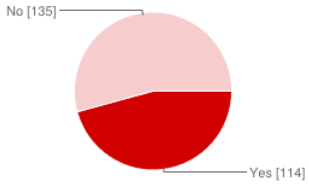
Yes	**113**	45%
No	**136**	54%

Do you think the community's concerns would be diminished by increasing their knowledge of the environmental cleanup projects being conducted at the NNSS?



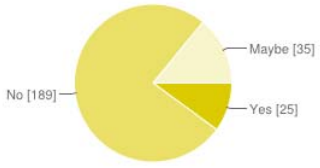
Yes	**146**	58%
No	**103**	41%

Are you interested in any environmental management issues and solving them, in regards to the Site?



Yes	**114**	45%
No	**135**	53%

Have you heard of the Nevada Site Specific Advisory Board (NSSAB)?



Yes	**25**	10%
No	**189**	75%
Maybe	**35**	14%

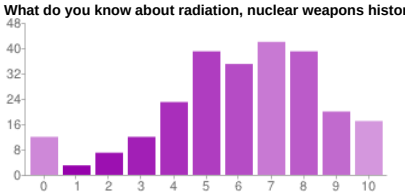
Are there any issues or concerns you'd like to have your WCTA student liaison representatives bring to the Board?

Yes	**23**	9%
No	**226**	89%

Are there any issues or concerns you'd like to have your WCTA student liaison representatives bring to the Board?

no maybe n/a I don't know anything about the NNSS or anything, but for what I read above, I'd like for the WCTA student liaison to bring the issue of saving electrical energy and all that kind of thing. Nope. No. No- Same question ^ no NO No thank you Are you saying that there are internships for working near nuclear reactors? No No No...wait...I didn't need to type this did I? Sorry... I have nothing to say. no no asdfghjk I haven no issues or concerns at this time. no No no Would it not be better to bring concerns to Vegas civilians about using solar energy instead of a site in which helps manage with waste? ...

What do you know about radiation, nuclear weapons history, or atomic science?



Say what?Very knowledgeable. I know the atomic histories of the Cold War, and most of the names of the atomic tests conducted in the US since 1945.

0 - Say what?
1
2
3
4
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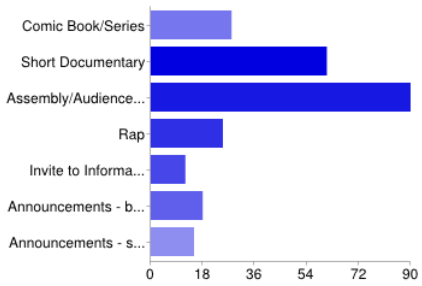
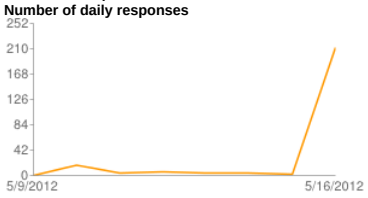
8
9
10 -Very knowledgeable. I know the atomic histories of the Cold V

What is the best way to present general information about the Board and the Site to you, the student?



Comic Book/Series	**28**	11%
Short Documentary	**61**	24%
Assembly/Audience Interaction	**90**	36%
Rap	**25**	10%
Invite to Informative Conference (if you're interested)	**12**	5%
Announcements - brief descriptive commercial to promote conference	**18**	7%
Announcements - series of graphic art animation informative commercials about the Site and the Board	**15**	6%

Number of responses without dates: 4
Number of daily responses



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

MAY 09 2012

Kathleen Bienenstein, Chair
Nevada Site Specific Advisory Board
232 Energy Way
North Las Vegas, NV 89030

RESPONSE TO THE NEVADA SITE SPECIFIC ADVISORY BOARD (NSSAB) 03-21-12 LETTER RE: REQUEST FOR INFORMATION REGARDING WORK PLAN ITEM #6-LONG-TERM MONITORING ACTIVITIES AT CLOSED INDUSTRIAL SITES

The Nevada Site Office appreciates the Nevada Site Specific Advisory Board's (NSSAB) interest in long-term monitoring at closed sites. In the referenced letter, the board requested additional information on two items:

1. The work plan currently used for monitoring; and

2. A formal plan detailing the process the Nevada Site Office intends to use to evaluate existing use restrictions (URs).

In response to item #1, I would like to take this opportunity to provide some clarification. Below is a synopsis of the documentation process that is currently used for monitoring in addition to inspections.

> Currently, there is no single document that prescribes a blanket approach to how monitoring will be conducted at the 125 closed locations. The site-specific requirements for monitoring and inspection are identified in the individual closure reports. All closure reports must be approved by the state of Nevada Division of Environmental Protection (NDEP). The closure report inspection and repair requirements were used to develop detailed inspection checklists. The checklists are used during the inspections to ensure that the post-closure inspection requirements are met. These requirements are tracked and maintained in the Environmental Restoration compliance matrices, which are updated at least annually. After the required inspections, the following three annual reports are written by the Nevada Site Office and provided to NDEP for approval.
>
> a) Post-Closure Inspection Letter Report for Corrective Action Units on the Nevada National Security Site
>
> b) Post-Closure Report for Closed Resource Conservation and Recovery Act Corrective Action Units, Nevada National Security Site, Nevada
>
> c) Post-Closure Inspection Report for the Tonopah Test Range, Nevada

The 2010 annual reports identified above can be accessed through the web at the addresses provided below. These reports include the applicable inspection checklists. Please note that the reports for calendar year 2011 have not been completed and are therefore not available.

Post - Closure Inspection Letter Report for Corrective Action Units on the Nevada National Security Site
http://www.osti.gov/bridge/servlets/purl/1030669/

Post-Closure Report for Closed Resource Conservation and Recovery Act Corrective Action Units, Nevada National Security Site, Nevada (DO/NV-1438)
http://www.osti.gov/bridge/servlets/purl/1004623-3J3Xdr/

Post-Closure Inspection Report for the Tonopah Test Range, Nevada (DOE/NV-1442)
http://www.osti.gov/bridge/servlets/purl/1010429-jgnrwX/

Upon completion of the UR evaluation by the Nevada Site Office, a long-term monitoring plan for use restricted industrial sites will be developed to guide future long-term monitoring and inspection activities. It is anticipated that this plan will be completed in FY 2013.

In response to item #2, the enclosed draft plan details the process that the Nevada Site Office plans to use to evaluate existing URs. The Nevada Site Office requests that the NSSAB review this plan and provide any feedback by the July full board meeting date.

The current schedule for this work scope is:

- July 18, 2012 – Receive feedback from the NSSAB regarding the process used to evaluate existing use restricted sites.
- July 30, 2012 – Complete review of feedback provided by NSSAB, incorporate recommendations, as appropriate, and finalize the evaluation plan.
- September 30, 2012 – Complete evaluation of sites in accordance with the plan and develop recommendations.
- FY 2013 (specific date TBD) – Complete recommended actions, as necessary.
- FY 2013 (specific date TBD) – Develop long-term monitoring and inspection plan.

MAY 09 2012

The Nevada Site Office appreciates the interest of the NSSAB in the development of a formal evaluation plan for existing URs. We look forward to your recommendation and will continue to keep the NSSAB informed on this activity. If you have any further questions, please contact Kelly K. Snyder at (702) 295-2836.

Robert F. Boehlecke
Environmental Management Operations
Activity Manager

PSG:8539.KKS

Enclosures:
As stated

cc w/o encls. via e-mail:
C. B. Alexander, DOE/HQ (EM-3.2) FORS
A. E. Clark, DOE/HQ (EM-3.2) FORS
M. A. Nielson, DOE/HQ (EM-3.2) FORS
D. M. Rupp, N-I, Las Vegas, NV
K. J. Cabble, ERP, NNSA/NSO,
Las Vegas, NV
T. A. Lantow, ERP, NNSA/NSO,
Las Vegas, NV
C. G. Lockwood, PSG, NNSA/NSO,
Las Vegas, NV
K. K. Snyder, PSG, NNSA/NSO,
Las Vegas, NV
NSSAB Members and Liaisons
NNSA/NSO Read File

Use Restriction Evaluation Plan

1. Introduction

   Use restrictions (URs) are administrative controls implemented at closed sites that limit or prohibit any activity that may alter or modify the containment control. URs are enacted at sites where contamination remains at levels above regulatory limits (known as final action levels [FALs]), or where contamination was below regulatory limits but other concerns exist. URs ensure the protection of human health, safety, and the environment, by preventing inadvertent intrusion into contamination left at the site.

   As of April 30, 2012, there are 125 use restricted Industrial Sites under the *Federal Facility Agreement and Consent Order* (FFACO) on the Nevada National Security Site and the Nevada Test and Training Range, including the Tonopah Test Range. Since the signing of the FFACO in 1996, practices and procedures relating to the implementation of risk-based corrective action (RBCA) have evolved. This plan will re-evaluate URs against the current requirements and practices. Additionally, inspection results will be reviewed to determine whether less frequent inspections or criteria changes are justified. A similar effort conducted in 2008 focused on sites with hydrocarbon contamination and resulted in 49 URs being changed or removed. The current effort, focusing on chemical and radiological contaminated sites, will ensure the most current requirements are enacted at each closed site and could reduce long-term inspection costs.

   Any changes to URs must be approved by the State of Nevada Division of Environmental Protection (NDEP) and ensure the ongoing protection of human health, safety, and the environment.

2. Purpose

   The sites will be investigated to determine whether they should (1) have URs eliminated or reduced, with or without additional work; (2) have reduced inspection frequency or criteria; or (3) be left unchanged. The 125 use restricted Industrial Sites will be screened and evaluated against the latest RBCA criteria, current characterization and remediation practices, and inspection criteria and results.

3. Use Restrictions

   The URs are to protect personnel from hazards associated with contamination. URs may be implemented at sites for any of the following reasons:

   a. The long-term risks of leaving the contamination in place (future worker, environment, or member of the public exposure) were less than the short-term risks of harm to workers performing cleanup.
   b. The benefits of implementing a UR and addressing other higher-risk or hazard sites were greater than the cost of cleanup or further investigation.
   c. The contaminants were evaluated to determine whether chemical breakdown (due to natural attenuation) or radiological decay (radionuclides with relatively shorter half-lives) would allow the UR to be implemented and better refined in the future.
   d. The depth of contamination was too great for excavation of contaminated soil, and environmental factors are not conducive to either natural attenuation or remediation techniques.
   e. Additional remediation will be conducted at a later date.

4. Screening

   The 125 sites were screened to determine whether further evaluation for UR removal was practical and cost effective. After screening, 40 sites (5 waste disposal sites, 3 surface structures, and 32 surface or near-surface features) were identified for evaluation.

   Fifty-nine of the 125 sites are disposal facilities (e.g., landfills, waste disposal units, waste trenches, injection wells) where, in most cases, removing the UR is not practical. Developing adequate characterization data on disposal facilities requires a large amount of sampling due to the varied nature of the buried waste. The risks to personnel to sample and eventually clean close the site (i.e., excavate waste, repackage waste, and relocate waste to a new landfill) are not justified. Therefore, all but five disposal facilities were not considered for further UR evaluation.

   Eleven of the remaining 66 sites are surface structures (e.g., buildings, facilities, Gravel Gerties) where risk to personnel, facility size, or incomplete characterization (e.g., investigation is ongoing) made further evaluation unnecessary. However, three of these facilities were determined to merit further evaluation.

Thirty-two of the remaining 55 sites are surface or near-surface features (e.g., lagoons, spills, ponds, leach fields, muckpiles) that warrant further evaluation. Eighteen sites were eliminated for a variety of reasons, including excessive contamination, difficulty in accessing the contaminants, hazards to personnel, or adjoining active sites.

All 40 sites are on the NNSS. Attachment A provides a table of the 40 sites type, closure dates, and comments regarding contaminants and closure details.

5. Evaluation Process

The evaluation process will review the 40 sites to determine whether the UR or inspections may be changed without increasing the risk to human health or the environment while reducing long-term costs. The evaluation will be conducted in two phases: (1) UR evaluation and (2) inspection review. Figure 1 presents the process for evaluating the URs. The FALs for the 40 sites will be reviewed against the current appropriate FALs to determine whether additional data are needed or whether a UR reduction or elimination can be recommended. If the UR cannot be eliminated, the site-specific inspection results and criteria will be examined to determine whether changes are justified in the frequency or criteria. If minimum migration, erosion, or loss of contamination control is documented over an appropriate time frame, reductions may be recommended (e.g., monthly to semiannual, or annual to once every two years). Additionally, contaminants or parameter changes may be recommended. This review will include associated costs and provide a basis for either reducing the current commitment or continuing the inspections in their current form.

6. Documentation Modifications

If inspection frequencies or criteria are changed, permit modifications may be necessary for some sites. These include the *Resource Conservation and Recovery Act* (RCRA) permit (NEV HW0101), with five RCRA-permitted waste disposal areas, and the E-Tunnel Wastewater Disposal system water pollution control permit (permit number 96021). Site-specific FFACO documents, such as closure reports, will also need modification.

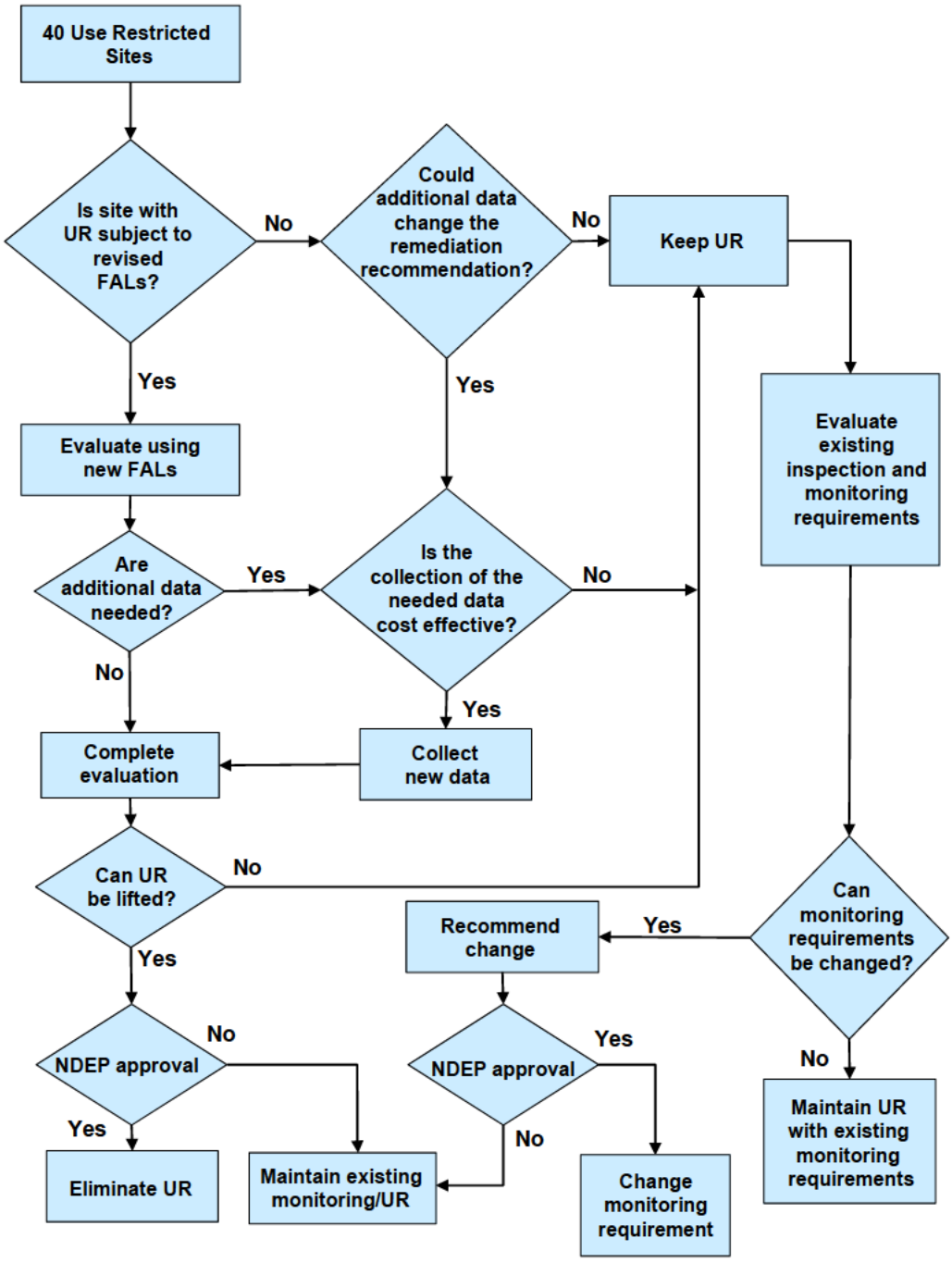


Figure 1 – UR Evaluation Process

7. Path Forward

The UR evaluation is scheduled to be completed by July 30, 2012. The evaluation report will recommend actions, including a list of UR removals. The inspection review is scheduled to be completed by September 20, 2012. The review report will provide recommendations on site-specific inspection frequencies and criteria.

Acronyms

Ac	Actinium
AST	Aboveground storage tank
Bgs	Below ground surface
Bi	Bismuth
BMP	Best management practice
CAS	Corrective action site
CAU	Corrective action unit
Co	Cobalt
COC	Contaminant of concern
CR	Closure report
Cs	Cesium
day/yr	Days per year
Decon	Decontamination
DOE	U.S. Department of Energy
DP	Defense Program
DRO	Diesel-range organics
DTRA	Defense Threat Reduction Agency
Eu	Europium
FFACO	*Federal Facility Agreement and Consent Order*
FAL	Final action level
ft	Foot
ER	Environmental Restoration
gal	Gallon
GRO	Gasoline-range organics
HC	Hydrocarbon
hr/yr	Hours per year
IS	Industrial Sites
m	Meter
m^2	Cubic meter
mg/kg	Milligrams per kilogram
mrem/yr	Millirem per year
NAC	*Nevada Administrative Code*
NDEP	Nevada Division of Environmental Protection
NV/YMP	Nevada/Yucca Mountain Project
PAL	Preliminary action level
Pb	Lead
PCB	Polychlorinated biphenyl
pCi/g	Picocuries per gram
Pu	Plutonium
RBCA	Risk-based corrective action

Acronyms

RCRA	*Resource Conservation and Recovery Act*
RR	Railroad
RRMG	Residual radioactive material guideline
RSL	Regional screening level
SVOC	Semivolatile organic compound
Th	Thorium
Tl	Thallium
TPH	Total petroleum hydrocarbons
U	Uranium
UDP	Underground discharge point
UR	Use restriction
VOC	Volatile organic compound
yd^3	Cubic yard

Attachment A - CASs Where Use Restrictions May Be Removed on the NNSS

No.	CAU	CAU Description	CAS	CAS Description	Owner	Closure Date	Comments	Lift UR?
1	92	Area 6 Decon Pond Facility	06-04-01	Decon Pad Oil/Water Separator	IS-ER	5/11/1999	Subsurface radiological contamination. Separator filled with grout. No post-closure monitoring.	Perhaps. Pull separator out of ground and sample.
2	127	Areas 25 and 26 Storage Tanks	25-01-07	Aboveground Storage Tank	IS-ER	3/6/2008	TPH is present at concentrations greater than 100 mg/kg in the subsurface soils between 5 and 16.5 ft bgs. AST was 10 ft from building, and impacted soil may extend beneath building. Excavation of soil was limited to upper 5 ft and at least 5 ft away from building, and verification samples were not collected as it was known that HC-impacted soil would remain.	Use current TPH/SVOC criteria.
3	137	Waste Disposal Sites	01-08-01	Waste Disposal Site	IS-ER	3/20/2007	Restrict disturbances from land surface to a depth of 20 ft bgs. Cs-137, Eu-152, and/or Pu-239 contamination is present in the surface and shallow subsurface (i.e., 0.5 to 2 ft bgs) soils at concentrations that exceed action levels. The maximum detected concentrations of Cs-137, Eu-152, and Pu-239 at the site are 12.5, 58.2, and 56.3 pCi/g, respectively. Surface area = 25,091 m^2 (6.2 acres).	Use current RRMGs.
4			07-23-02	Radioactive Waste Disposal Site			Restrict disturbances from land surface to a depth of 20 ft bgs. Eu-152 and Pu-239 contamination is present in the surface and shallow subsurface (i.e., 0.5 to 2 ft bgs) soils at concentrations that exceed action levels. The maximum detected concentrations of Eu-152 and Pu-239 at the site are 98 and 75 pCi/g, respectively. Surface area = 5,787 m^2 (1.43 acres).	Use current RRMGs.
5			12-08-01	Waste Disposal Site			Restrict disturbances from land surface to a depth of 100 ft bgs. These CASs are co-located with each other. Benzo(a)anthracene (3.2 mg/kg), benzo(a)pyrene (2.9 mg/kg), benzo(b)fluoranthene (4.5 mg/kg), dibenzo(a,h)anthracene (0.52 mg/kg), indeno(1,2,3-cd)pyrene (2.1 mg/kg), TPH-DRO (830 mg/kg), lead (16,000 mg/kg), and/or Cs-137 (603 pCi/g) are present in the surface and shallow subsurface (i.e., 0.5 to 4.0 ft bgs) soils. Surface area = 10,198 m^2 (2.52 acres).	Use current RBCA and NAC criteria.
6			12-23-07	Waste Disposal Site				
7	139	Waste Disposal Sites	04-08-02	Waste Disposal Site	IS-ER	8/14/2009	Remote Work Area scenario of 42 day/yr for 25 years. Site contamination is below action levels under current land use, but contamination would exceed action levels if future land use required prolonged exposure to site contaminants. Pu-239 is present at levels exceeding the FAL, but the presence of this contaminant is attributable to nearby atmospheric testing that will be addressed under the Soils Project. Site is 300 x 500 ft.	Use current RRMGs for industrial work.

Attachment A - CASs Where Use Restrictions May Be Removed on the NNSS

No.	CAU	CAU Description	CAS	CAS Description	Owner	Closure Date	Comments	Lift UR?
8	145	Wells and Storage Holes	03-20-02	Decon Pad and Sump	IS-ER	3/6/2008	Implemented as a BMP to limit any future uses of the site that would cause site workers to be exposed to site contamination for a total duration of more than 500 hours (based on the Occasional Use scenario of 100 hr/yr for 5 years. Lead and Aroclor 1268 contamination is present in the surface soils at maximum detected concentrations of 1,600 and 2.5 mg/kg, respectively. TPH-DRO contamination was identified in the surface and subsurface (i.e., to a depth of 57 ft bgs) soils at a maximum detected concentration of 1,600 mg/kg, but the hazardous constituents of TPH-DRO did not exceed FALs; therefore, TPH-DRO is not considered a COC.	Use current RBCA and NAC criteria. No SVOC analysis done, may need minor sampling.
9			03-25-01	Oil Spills			Arsenic and pentachlorophenol contamination is present in the subsurface soils (between 26 and 57 ft bgs) and identified as COCs because their combined concentration exceeds the action level. Benzo(a)pyrene (0.39 mg/kg), benzo(b)fluoranthene (3.0 mg/kg), dibenzo(a,h)anthracene (0.38 mg/kg), TPH (-DRO [94,000 mg/kg] and -GRO [300 mg/kg]), and/or lead (9,000 mg/kg) contamination are also present in the surface and/or subsurface (from 0.5 to 28 ft bgs) soils.	Use current RBCA and NAC criteria. No SVOC analysis done, may need minor sampling.
10	151	Septic Systems and Discharge Area	12-47-01	Wastewater Pond	IS-ER	5/1/2008	Occasional Use scenario of 80 hr/yr for 5 years - Aroclor 1254 and TPH-DRO contamination was detected in the shallow subsurface (i.e., 5 to 7 ft bgs) soils at maximum detected concentrations of 2.2 and 190 mg/kg, respectively.	Use current RBCA and NAC criteria. No SVOC analysis done, may need minor sampling.
11			12-03-01	Sewage Lagoons (6)			Lagoons B and E URs were implemented as a BMP to limit any future uses of the site that would cause site workers to be exposed to site contamination for a total duration of more than a total of 50 workdays (based on the Occasional Use scenario of 80 hr/yr for 5 years). Lagoon A has arsenic present in the shallow subsurface (0.75 to 5.5 ft bgs) soils at a maximum detected concentration of 58 mg/kg. Arsenic was the only contaminant present in the surface and/or shallow subsurface at concentrations exceeding the FAL (i.e., to a depth of 6 ft bgs).	Use current RBCA criteria.
12	165	Area 25 and 26 Dry Well and Washdown Areas	25-20-01	Lab Drain Dry Well	IS-ER	12/2005, updated 4/24/2006	Tetrachloroethene and TPH contamination is present in the subsurface soils beneath the dry well (i.e., 9 to 11.5 ft bgs) at concentrations that exceed action levels. Maximum detected concentrations of tetrachloroethene and TPH are 110 and 170 mg/kg, respectively. No SVOCs exceeded FALs, including the hazardous constituents of TPH. Well backfilled with clean soil.	Use current RBCA criteria.

Attachment A - CASs Where Use Restrictions May Be Removed on the NNSS

No.	CAU	CAU Description	CAS	CAS Description	Owner	Closure Date	Comments	Lift UR?
13	168	Area 25 and 26 Contaminated Materials and Waste Dumps	25-23-02	Radioactive Storage RR Cars	IS-ER	2/5/2007	Thirteen of the 19 railcars surveyed at CAS 25-23-02 have removable alpha/beta contamination and/or total surface contamination that exceeds the limits for unrestricted release as presented in the NV/YMP Radiological Control Manual.	Recalculate dose.
14	204	Storage Bunkers	05-18-02	Chemical Explosives Storage	IS-ER	4/17/2006	Th-234 and U-234, U-235, and/or U-238 are present in the surface and subsurface (to a depth of 11 ft bgs) soils at concentrations that exceed FALs.	Use current RRMGs, and look at feasibility to sample inside bunkers.
15			05-33-01	Kay Blockhouse			Ac-228, Bi-212, Pb-212, Tl-208, Th-234, and/or U-238 contamination is present in the surface and subsurface (to a depth between 15 and 20 ft bgs) soils at concentrations that exceed action levels. Lead and/or RDX (explosives) are present in the sediments of the steel-lined pits (which have been filled and capped with concrete) at concentrations that exceed action levels. Asbestos containing material (i.e., amosite and chrysolite) with less than 20 percent asbestos may still be present at the surface. Kay Blockhouse has historical significance.	Use current RRMGs and RSLs, and look at feasibility to sample inside bunkers.
16	219	Septic Systems and Injection Wells	16-04-01	Septic Tanks (3)	IS-ER	6/15/2006	Occasional Use scenario of 100 hr/yr for 5 years. Sludge contaminated with benzo(a)pyrene (0.85 mg/kg), Aroclor 1260 (1.0 mg/kg), TPH-DRO (2,800 mg/kg), and chlordane (9.1 mg/kg) was solidified and sealed in the septic tanks	Use current RBCA and NAC criteria.
17			16-04-02	Distribution Box			Occasional Use scenario of 100 hr/yr for 5 years. The distribution box is located upgradient of and adjacent to the septic tanks at CAS 16-04-01, which contain sludge contaminated with benzo(a)pyrene, Aroclor 1260, TPH-DRO, and/or chlordane. The contents of the distribution box were not sampled, but it is assumed that the contaminants identified in the septic tanks would also be present in the distribution box.	
18			16-04-03	Sewer Pipes			Occasional Use scenario of 100 hr/yr for 5 years. CAS includes the sewer pipes and the outfall area that are adjacent to and downgradient of CAS 16-04-01, Septic Tanks. Chlordane contamination is present in the surface and shallow subsurface (i.e., 0.5 to 2 ft bgs) soils at CAS 16-04-03 at a maximum detected concentration of 34.0 mg/kg. The contents of the sewer pipes were not sampled, but it has been assumed that the contaminants identified in the septic tanks at CAS 16-04-01 are also present in the sewer pipes.	

Attachment A - CASs Where Use Restrictions May Be Removed on the NNSS

No.	CAU	CAU Description	CAS	CAS Description	Owner	Closure Date	Comments	Lift UR?
19	261	Area 25 Test Cell A Leachfield System	25-05-01	Leachfield	IS-ER	5/30/2001	Benzo(a)pyrene and Cs-137 are present in the shallow subsurface (i.e., 0.25 to 3.5 bgs) soils at maximum detected concentrations of 0.93 mg/kg and 10.6 pCi/g, respectively. A soil cover was installed over the site.	Use current RBCA criteria and RRMGs.
20	262	Area 25 Septic Systems and UDP	25-02-06	Underground Storage Tank	IS-ER	7/31/2003	Radiological contaminants were solidified in the septic tank, and the remaining void space was filled with grout. Some radiological contaminants within the tank have no current action levels associated with them, so an assumption was made that they would exceed their respective action levels, at least until they are established at some time in the future.	Use current RRMGs.
21			25-05-08	Radioactive Leachfield			A 1.2-m (4-ft)-thick soil cap was installed over the leachfield. Cd-109, Cs-137, and Sr-90 contamination is present in the surface and/or subsurface soils (to a depth of 18.5 bgs) at maximum detected concentrations of 12.7, 6,610, and 810 pCi/g, respectively.	Use current RRMGs.
22	274	Septic Systems	20-05-01	Septic System	IS-ER	9/2006	Limit individuals from working at the site for more than 50 working days (i.e., 500 hour total [100 hr/yr for 5 years]) to avoid overexposure to chemical contaminants. Benzo(a)pyrene was identified in the subsurface soils at a concentration of 1.0 mg/kg. The UR requires prior permission before activities that may disturb the site are implemented, even for routine maintenance. Septic tank removed, area graded.	Use current RBCA criteria.
23	329	Area 22 Desert Rock Airstrip Fuel Spill	22-44-01	Fuel Spill	IS-DP	9/1/2000	Occasional Use scenario of 100 hr/yr for 5 years. TPH (-DRO and -GRO) contamination is present in the subsurface soils at depths greater than 10 ft at detected concentrations up to 11,000 mg/kg. Based on field-screening results and laboratory analytical results, the vertical extent of contamination does not extend below 140 ft. The PALs for total VOCs and total SVOCs were not exceeded in soil samples collected from the site. Addendum dated 3/05 - add more wells to gauge the natural attenuation.	Use current RBCA and NAC criteria.
24	357	Mud Pits and Waste Dump	04-26-03	Lead Bricks	IS-DP	5/11/2005	Lead contamination is present in the surface and shallow subsurface (i.e., 0.5 to 2 ft bgs) soils at a maximum detected concentration of 4,300 mg/kg (based on the Occasional Use scenario of 100 hr/yr for 5 years). Is area too big (approximately 30 x 45 x 2 m) to excavate?	Use current RBCA criteria.
25			10-09-06	Mud Pit; Stains; Material			Co-60 is present in the surface soils at CAS 10-09-06 at a maximum detected concentration of 140 pCi/g. Can the area of high Co-60 be excavated? It was also determined based on the short half-life of Co-60 that the current maximum dose of 50 mrem/yr would decrease to below the 25-mrem/yr dose constraint after approximately 6 years. All administrative controls may be reevaluated after approximately 6 years.	Use current RRMGs.

Attachment A - CASs Where Use Restrictions May Be Removed on the NNSS

No.	CAU	CAU Description	CAS	CAS Description	Owner	Closure Date	Comments	Lift UR?
26	383	Area 12 E-Tunnel Sites	12-06-06	Muckpile	DTRA/DOE - IS-ER	3/12/2007	TPH-DRO, benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, Indeno(123-cd)pyrene, Am-241, Cs-137, Pu-238, Pu-239, occasional use. Tier 2 evaluation determined that none of the hazardous constituents of TPH-DRO exceeded their respective PALs at 12-06-06. At 12-25-02, of the hazardous constituents of TPH-DRO, B(a)A, exceeded the PAL (2.1 mg/kg) in two of the samples, and B(a)P exceeded the PAL (0.21 mg/kg) in three of the samples. All three CASs are enclosed within one UR.	Use current RSLs and RRMGs.
27			12-25-02	Oil Spill				
28			12-28-02	Radioactive Material				
29	464	Areas 2, 9 Underground Storage Tanks and Spill Bunkers 2-300, 9-300	02-02-03	UST 2-300-1	IS-ER	7/19/1998	Concentrations of TPH-DRO are present in the subsurface soils between 15 and 20 ft bgs at a maximum detected concentration of 230 mg/kg, which exceeds the action level of 100 mg/kg. The tank had an approximate capacity of 500 gal and supplied diesel fuel for generators. The tank was removed on 4/30/96. A soil sample collected from approximately 1 ft below the south tank bottom had a TPH concentration of 230 mg/kg. Additional excavation was completed on 5/3/96. A sample collected from a depth of approximately 9 ft below the tank bottom had a TPH concentration of 9,600 mg/kg. The excavation activities in 1996 indicated that the spill had impacted soil under the generator room and access driveway. Equipment access to this site is limited due to the release location within the physical depression of the bunker facility. The vertical extent of impacted soil was determined not to extend below a depth of 20 ft bgs. The lateral extent was defined by two boreholes and was determined not to extend beyond a maximum distance of 27 ft from the release site. In addition, by completing the tank closure and excavating approximately 50 yd^3 of impacted soil from the site, the source and contributing components to the identified release have been removed. Administrative closure using the NDEP A through K evaluation.	Use current RBCA and NAC criteria. No SVOC analysis done, may need minor sampling.
30	500	Test Cell A Septic System	25-04-05	Septic Tank/System	IS-ER	3/1/2000	Restrict intrusive activities that may expose workers to potential chemical and/or radiological contamination remaining in a septic pipe that was not sufficiently characterized. Despite the pressure washing of the piping and associated septic tank, rinsate gathered from the piping was not analyzed, and therefore cannot demonstrate clean closure. The septic tank and piping have been grouted.	Use current RRMGs and RSLs.
31	528	Polychlorinated Biphenyls Contamination	25-27-03	Polychlorinated Biphenyls Surface Contamination	IS-ER	10/17/2006	TPH and/or PCB (Aroclor 1260 only) contamination is present in the surface and/or shallow subsurface (i.e., 0.5 to 2 ft bgs) soils within the CAS at concentrations that exceed action levels. The maximum detected concentrations of TPH-DRO and Aroclor 1260 present at this CAS are 330 and 7.2 mg/kg, respectively. The UR for Area 1 of CAS 25-27-03 overlays Parcel E of CAS 25-23-17 (CAU 529), which is use restricted for radiological contamination (i.e., Cs-137). The majority of the UR areas at CAS 25-27-03 are within the fenced area of the Test Cell C facility. CAS 25-27-03 consists of 12 areas impacted with TPH and/or PCBs. Areas 1, 5, and 6 have URs for TPH; Area 4 for TPH and PCBs.	Use current RSLs.

Attachment A - CASs Where Use Restrictions May Be Removed on the NNSS

No.	CAU	CAU Description	CAS	CAS Description	Owner	Closure Date	Comments	Lift UR?
32	529	Area 25 Contaminated Materials	25-23-17	Contaminated Wash	IS-ER	11/18/2004	The UR at Parcel E restricts disturbances from the surface to a depth of 7 ft bgs to avoid exposure to Cs-137 contamination that is present in the subsurface soils between 3 and 7 ft bgs at concentrations that exceed action levels. The maximum detected concentration of Cs-137 at Parcel E is 43.5 pCi/g. The UR for Parcel E underlies the UR for Area 1 of CAS 25-27-03 (CAU 528). Area 1 at CAS 25-27-03 is URed because TPH-DRO contamination is present at concentrations that exceed the NAC limit of 100 mg/kg. The majority of Parcel E is located within the fenced area of Test Cell C. TPH-DRO contamination is present in the surface and shallow subsurface soils (i.e., from 0.5 to 3 ft bgs) at Parcel H at a maximum detected concentration of 7,900 mg/kg. Parcel H is located within the boundaries of the Topopah Wash, and "Waters of the State" regulations apply.	Use current RSLs and RRMGs.
33	538	Spill Sites	12-29-06	Spill Site	IS-ER	3/5/2007	Remote Work Area scenario of 42 day/yr for 25 years (1,050 days). Aroclor 1254 and Aroclor 1260 are present in the surface and shallow subsurface (i.e., 0.5 to 1.5 ft bgs) soils at maximum detected concentrations of 0.94 and 1.1 mg/kg, respectively.	Use current RBCA criteria.
34	543	Liquid Disposal Units	06-07-01	Decon Pad	IS-ER	1/28/2008	Radiological and chemical contaminants. TPH-DRO (1,300 mg/kg), Aroclor 1254 (2.8 mg/kg), Aroclor 1260 (6.7 mg/kg), Cs-137 (65.6 pCi/g), and/or Co-60 (2.09 pCi/g) contamination is present in the surface and/or shallow (i.e., 0.5 to 1.0 ft bgs) subsurface soils at concentrations that exceed action levels. Contamination also on concrete pad.	Use current RSLs and RRMGs.
35			15-23-03	Contaminated Sump, Piping			Radiological and chemical contamination. Pu-238 is present in the surface soils at a maximum detected concentration of 8,800 pCi/g, which exceeds its action level of 2,906 pCi/g. Aroclor 1248 and Aroclor 1260 are present at the site at maximum detected concentrations of 1.1 and 1.2 mg/kg, respectively. The PCB contamination at the CAS exceeds the action level. The UR area includes a sump and associated piping.	Use current RBCA and NAC criteria, and current RRMGs.

Attachment A - CASs Where Use Restrictions May Be Removed on the NNSS

No.	CAU	CAU Description	CAS	CAS Description	Owner	Closure Date	Comments	Lift UR?
36	551	Area 12 Muckpiles	12-06-05	U-12b Muckpile	IS-ER	12/18/2006	This CAS is one of four CASs contained within the boundaries of the UR. Arsenic, lead, benzo(a)pyrene, dibenzo(a,h)anthracene, TPH-DRO (1,000 mg/kg, which is a historical high value obtained from previous NTS muckpile investigations), Am-241, Cs-137, Co-60, Eu-152, Pu-238, and/or Pu-239 contamination is present or is assumed to be present in the surface and/or subsurface soils at concentrations exceeding their respective action levels.	Use current RSLs for SVOCs only. May remove UR for TPH only.
37			12-06-07	Muckpile			This CAS is one of four CASs contained within the boundaries of the UR. TPH-DRO, arsenic, lead, Am-241, Cs-137, Co-60, Eu-152, Pu-238 and/or Pu-239 contamination was detected, or assumed is to be present, in the surface and/or subsurface soils at concentrations exceeding their respective action levels.	
38			12-06-08	Muckpile			This CAS is one of four CASs contained within the boundaries of the use restriction. Arsenic, lead, benzo(a)pyrene, dibenzo(a,h)anthracene, TPH-DRO, Am-241, Cs-137, Co-60, Eu-152, Pu-238, and/or Pu-239 contamination was detected, or is assumed to be present, in the surface and/or subsurface soils at concentrations exceeding their respective action levels.	
39			12-01-09	Aboveground Storage Tank and Stain			This CAS is one of four CASs that are contained within the boundaries of the UR. TPH-DRO contamination was detected in the surface and shallow subsurface (i.e., 0.0 to 3.5 ft bgs) at a maximum detected concentration of 98,000 mg/kg; however, the hazardous constituents of diesel were not detected at concentrations exceeding their respective action levels. The inclusion of CAS 12-01-09 in the use restriction was implemented as a conservative approach to protect site workers.	
40	554	Area 23 Release Site	23-02-08	USTs 23-115-1,2,3/Spill 530-90-002	IS-ER	7/19/2005	TPH-DRO is present in the subsurface soils to a depth of 404 ft bgs at a maximum detected concentration of 26,000 mg/kg. Although the concentration of TPH-DRO is above the action level of 100 mg/kg, the hazardous constituents of diesel were not detected at concentrations exceeding their respective action levels.	Use current RBCA and NAC criteria. No SVOC analysis done, may need minor sampling.

POST-CLOSURE: NTS NON-RCRA INSPECTED SITES
SUMMARY LEVEL

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
005	05-15-01	Visual inspections, annually by December 31 for 5 years and then every 5 years for a total of 30 years. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 through 2010, scheduled for every 5 years in lifecycle baseline thereafter for a total of 30 years. Tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
005	05-16-01	Visual inspections, annually by December 31 for 5 years and then every 5 years for a total of 30 years. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 through 2010, scheduled for every 5 years in lifecycle baseline thereafter for a total of 30 years. Tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
005	06-08-01	Visual inspections, annually by December 31 for 5 years and then every 5 years for a total of 30 years. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 through 2010, scheduled for every 5 years in lifecycle baseline thereafter for a total of 30 years. Tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
005	06-15-02	Visual inspections, annually by December 31 for 5 years and then every 5 years for a total of 30 years. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 through 2010, scheduled for every 5 years in lifecycle baseline thereafter for a total of 30 years. Tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
005	06-15-03	Visual inspections, annually by December 31 for 5 years and then every 5 years for a total of 30 years. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 through 2010, scheduled for every 5 years in lifecycle baseline thereafter for a total of 30 years. Tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
005	12-15-01	Visual inspections, annually by December 31 for 5 years and then every 5 years for a total of 30 years. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 through 2010, scheduled for every 5 years in lifecycle baseline thereafter for a total of 30 years. Tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
005	20-15-01	Visual inspections, annually by December 31 for 5 years and then every 5 years for a total of 30 years. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 through 2010, scheduled for every 5 years in lifecycle baseline thereafter for a total of 30 years. Tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
005	23-15-03	Visual inspections, annually by December 31 for 5 years and then every 5 years for a total of 30 years. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 through 2010, scheduled for every 5 years in lifecycle baseline thereafter for a total of 30 years. Tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
107	03-23-29	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
107	18-23-02	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
113	25-41-01	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
115	25-41-04	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
116	25-41-05	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
118	27-41-01	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
127	25-01-07	Visual inspection, annually December 31. Documented in Annual Report. Maintenance or repair to be scheduled within 90 working days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
127	25-02-02	Visual inspection, annually December 31. Documented in Annual Report. Maintenance or repair to be scheduled within 90 working days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
137	01-08-01	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
137	07-23-02	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
137	12-08-01	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
137	12-23-07	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
139	06-19-03	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
139	09-23-01	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
140	05-23-01	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
140	23-17-01	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
143	25-23-03	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
143	25-23-09	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
145	03-25-01	Visual inspections, annually by December 31. Documented in Annual Report. Maintenance or repair to be scheduled within 90 working days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
151	12-03-01 Lagoon A	Visual Inspection, annually by December 31. Documented in Annual Report. Maintenance or repair to be performed within 90 working days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
165	25-20-01	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
168	25-16-03	Visual inspections, annually by December 31 for 5 years and then every 5 years for a total of 30 years. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 through 2011, scheduled for every 5 years in lifecycle baseline thereafter for a total of 30 years. Tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
168	25-23-02	Visual inspections, annually by December 31 for 5 years and then every 5 years for a total of 30 years. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 through 2011, scheduled for every 5 years in lifecycle baseline thereafter for a total of 30 years. Tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
168	25-99-16	Visual inspections, annually by December 31 for 5 years and then every 5 years for a total of 30 years. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 through 2011, scheduled for every 5 years in lifecycle baseline thereafter for a total of 30 years. Tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
204	01-34-01	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
204	02-34-01	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
204	03-34-01	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
204	05-18-02	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
204	05-33-01	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
254	25-23-06	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
261	25-05-01	Visual Inspection, annually by December 31. Documented in Annual Report. Maintenance or repair to be performed within 90 working days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
262	25-02-06	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
262	25-05-03	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
262	25-05-08	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
309	12-06-09	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
309	12-08-02	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
309	12-28-01	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
322	03-20-05	Visual Inspection, annually by December 31 for the first 5 years and once every 5 years for a total of 30 years. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 through 2010, scheduled for every 5 years in lifecycle baseline thereafter for a total of 30 years. Tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
357	04-26-03	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
357	10-09-06	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
357	25-15-01	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
365	08-23-02	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
367	10-45-01	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
367	10-45-02	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
367	10-45-03	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
370	04-23-01	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
371	11-23-05	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
371	18-45-01	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
372	18-45-02	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
372	18-45-03	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
372	20-23-01	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
372	20-45-01	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
374	18-23-01	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
374	20-45-03	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
375	25-23-22	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
375	30-45-01	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
528	25-27-03	Visual inspections, annually by December 31 for 5 years and then every 5 years for a total of 30 years. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 through 2011, scheduled for every 5 years in lifecycle baseline thereafter for a total of 30 years. Tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
529	25-23-17 Parcel E	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
529	25-23-17 Parcel H	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
539	25-99-21	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
542	03-20-07	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
542	03-20-09	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
542	03-20-10	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
542	03-20-11	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
542	06-20-03	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
543	06-07-01	Visual Inspection, annually by December 31. Documented in Annual Report. Maintenance or repair to be scheduled within 90 working days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
543	15-01-03	Visual Inspection, annually by December 31. Documented in Annual Report. Maintenance or repair to be scheduled within 90 working days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
543	15-23-03	Visual Inspection, annually by December 31. Documented in Annual Report. Maintenance or repair to be scheduled within 90 working days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
544	20-25-04	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
545	03-08-03	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
545	03-23-05	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
546	09-20-01	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
551	12-01-09	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
551	12-06-05	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
551	12-06-07	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
551	12-06-08	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
552	12-23-05	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementaion	Tracking Tool	Verification
554	23-02-08	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
560	06-05-03	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
560	06-05-04	Visual inspections, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
561	02-08-02	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
566	25-99-20	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.

POST-CLOSURE: NTS DTRA ORIGINATED SITES
SUMMARY LEVEL

CAU	CAS	Requirement	Implementation	Tracking Tool	Verification
383	12-06-06	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
383	12-25-02	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
383	12-28-02	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
476	12-06-02	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
477	12-06-03	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
478	12-23-01	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementation	Tracking Tool	Verification
482	15-06-01	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
482	15-06-02	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
482	15-38-01	Visual Inspection, annually by December 31. Documented in Annual Report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
559	12-25-13	Covered under CAU 476 requirements.	Covered under CAU 476 requirements.	Covered under CAU 476 requirements.	Covered under CAU 476 requirements.

POST-CLOSURE: NTS RCRA SITES
SUMMARY LEVEL

CAU	CAS	Requirement	Implementation	Tracking Tool	Verification
090	02-20-01	Semi-annual inspections. Repairs other than general housekeeping in 60 days. Annual Report. Records in secure cabinet.	Post-Closure Inspection Checklist.	Semi-annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
090	02-20-03	Semi-annual inspections. Repairs other than general housekeeping in 60 days. Annual Report. Records in secure cabinet.	Post-Closure Inspection Checklist.	Semi-annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
091	03-20-03	Semi-annual inspections. Annual Report. Records in secure cabinet.	Post-Closure Inspection Checklist.	Semi-annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

CAU	CAS	Requirement	Implementation	Tracking Tool	Verification
092	06-05-02	Quarterly inspections. Additional inspections if precipitation > 0.5 in. in 24 hrs. Repairs of cracks/settling >2 in. deep in 60 days. Annual Report. Records in secure cabinet.	Post-Closure Inspection Checklist.	Quarterly event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
110	03-23-04	Quarterly inspections. Repairs of cracks/settling >6 in. deep and >3 ft long in 60 days. If TDR monitoring action level is exceeded, plan to NDEP in 90 days. Semi-annual subsidence surveys. Annual veg survey. Annual Report. Records in secure cabinet	Post-Closure Inspection Checklist.	All activities scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.
111	05-21-01	Quarterly inspections. Additional inspections if precipitation > 1.0 inch in 24 hrs. Annual subsidence and veg surveys. Repairs in 60 days. Documented in Annual Report including additional Waste Mgmt Monitoring data. Records in secure cabinet.	Post-Closure Inspection Checklist.	Quarterly event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
112	23-21-02	Quarterly inspections. Annual Report. Records in secure cabinet.	Post-Closure Inspection Checklist.	Quarterly event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee. Report verified as complete by PM.

POST-CLOSURE: TTR INSPECTED SITES
SUMMARY LEVEL

CAU	CAS	Requirement	Implementation	Tracking Tool	Verification
407	TA-23-001-TARC	Visual inspection, annually. Documented in annual report. Maintenance or repair to be performed within 90 working days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
424	03-08-001-A301	Visual inspection, annually. Documented in annual report. Maintenance or repair to be performed within 90 days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
424	03-08-002-A302	Visual inspection, annually. Documented in annual report. Maintenance or repair to be performed within 90 days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
424	03-08-002-A303	Visual inspection, annually. Documented in annual report. Maintenance or repair to be performed within 90 days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
424	03-08-002-A304	Visual inspection, annually. Documented in annual report. Maintenance or repair to be performed within 90 days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
424	03-08-002-A305	Visual inspection, annually. Documented in annual report. Maintenance or repair to be performed within 90 days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
424	03-08-002-A306	Visual inspection, annually. Documented in annual report. Maintenance or repair to be performed within 90 days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.

CAU	CAS	Requirement	Implementation	Tracking Tool	Verification
424	03-08-002-A308	Visual inspection, annually. Documented in annual report. Maintenance or repair to be performed within 90 days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
453	09-55-001-0952	Visual inspection, annually. Documented in annual report. Maintenance or repair to be performed within 90 days of discovery.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.
487	RG-26-001-RGRV	Visual inspection, annually. Documented in annual report.	Post-Closure Inspection Checklist.	Annual event scheduled in P6 & tracked in POD.	Completed checklist checked by IS Program Manager or designee.

Nevada Site Specific Advisory Board

May 16, 2012

Ms. Kelly Snyder, DDFO
U.S. Department of Energy, Nevada Site Office
P. O. Box 98518
Las Vegas, NV 89193-8518

SUBJECT: Membership Candidates

Dear Ms. Snyder,

After preparation and review, the Nevada Site Specific Advisory Board would like to make the following recommendation regarding the FY 2012 membership recruitment.

The NSSAB has grouped potential membership appointments into four prioritized categories (candidates have been identified by application number).

Category One	Category Two	Category Three	Declined
12-06	12-05	12-21	12-28
12-01	12-07	12-08	12-29
12-26	12-15	12-13	12-18
		12-24	12-27

It is requested that Category One candidates be given the highest priority with candidates from Categories Two and Three selected to ensure maximum Board balance and diversity.

While we realize the final decision regarding membership lies with the Assistant Secretary of Environmental Management, we appreciate the opportunity to participate in the recruitment/interview process. We look forward to welcoming new members to the Board in the coming year thus ensuring continued stakeholder involvement in the Environmental Management activities at the Nevada National Security Site.

Sincerely,

Kathleen L. Bienenstein, Chair

cc: C. Lockwood, PSG, NNSA/NSO, Las Vegas, NV
D. Rupp, NREI, Las Vegas, NV
M. Nielson, DOE/HQ (EM-13) FORS
C. Alexander, DOE/HQ (EM-13) FORS
A. Clark, DOE/HQ (EM-13) FORS
NSSAB Members and Liaisons
NNSA/ NSO Read File

232 Energy Way, M/S 505, North Las Vegas, NV 89030
Phone 702-630-0522 ◇ Fax: 702-295-5300
E-mail: NSSAB@nv.doe.gov ◇ Website Home Page: http://www.nv.energy.gov/NSSAB

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

MAY 11 2012

Kathleen Bienenstein
Nevada Site Specific Advisory Board
232 Energy Way
N. Las Vegas, NV 89030

RESPONSE TO THE NEVADA SITE SPECIFIC ADVISORY BOARD (NSSAB) FISCAL YEAR (FY) 2014 BUDGET PRIORITIZATION RECOMMENDATION

I would like to extend my gratitude to the NSSAB for discussing and evaluating the Environmental Management (EM) activities for the FY 2014 budget prioritization. The NSSAB's budget prioritization is very important to the Nevada Site Office (NSO) as well as the entire Environmental Management program. The NSSAB's prioritization ranking is a key component in developing our budget recommendation to Headquarters.

Recently, I met with NSO EM staff and conducted a similar ranking. The chart below illustrates both the NSSAB's ranking and NSO EM's ranking.

FY 2014		
Activity	**NSSAB Ranking**	**Nevada Site Office/ EM Ranking**
Underground Test Area	1	1
Low-Level Waste	2	2
Soils	3	3
Industrial Sites	4	4

As a result of your recommendation and discussions with my staff, the NSO EM has ranked the FY 2014 activities in the same order. The NSSAB recommendation will be included within the material provided by the NSO to EM Headquarters for budget deliberations.

Again, thank you for the time and effort the NSSAB devoted to the FY 2014 budget prioritization process. I value the NSSAB's input and look forward to continuing this annual task.

If you have questions regarding EM's ranking or the budget process, please contact Kelly K. Snyder, of my staff, at (702) 295-2836.

Scott A. Wade
Assistant Manager
for Environmental Management

PSG:8538.KKS

cc via e-mail:
Catherine Alexander, DOE/HQ (EM-3.2)
FORS
M. A. Nielson, DOE/HQ (EM-3.2) FORS
D. M. Rupp, NI, Las Vegas, NV
K. K. Snyder, PSG, NNSA/NSO,
Las Vegas, NV
C. G. Lockwood, PSG, NNSA/NSO,
Las Vegas, NV
NNSA/NSO Read File

National Nuclear Security Administration

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

May 16, 2012

Kathleen L. Bienenstein, Chair
Nevada Site Specific Advisory Board
232 Energy Way
North Las Vegas, NV 89030

RESPONSE TO RECOMMENDATION REGARDING PROPOSED U-233 DISPOSITION AT THE NEVADA NATIONAL SECURITY SITE (NNSS)

I would like to thank the Nevada Site Specific Advisory Board (NSSAB) for thoroughly reviewing and providing a recommendation to the U.S. Department of Energy (DOE) on the proposed disposal of Oak Ridge National Laboratory (ORNL) U-233 Consolidated Edison Uranium Solidification Project waste stream at the NNSS. We hold in high regard the NSSAB's support of disposing the U-233 CEUSP waste at the NNSS if the DOE completes all of the necessary documentation and deems the waste acceptable for disposal.

See below for responses to your specific recommendations:

NSSAB Recommendation: The DOE should respond to local government concerns regarding this waste stream, including emergency response training and other needs.
DOE Response: The DOE has met with Nye County and state of Nevada representatives in April regarding this waste stream. During these discussions, there were no requests for additional emergency response training. The DOE will continue to engage in discussions with other governmental entities and provide them necessary information as it becomes available.

NSSAB Recommendation: The DOE should explore all transportation routes.
DOE Response: Transportation routes are being discussed within DOE and will be subject to final safeguard and security determinations.

NSSAB Recommendation: ORNL and the Nevada Site Office may benefit from reviewing Dr. Ruth Weiner's May 6, 2009, transportation study, *Risks of Transportation Along Various Routes to the Nevada Test Site.*
DOE Response: This document has been distributed to key ORNL and Nevada Site Office staff.

The DOE is committed to providing the NSSAB all publicly-releasable documentation on the U-233 CEUSP waste as it relates to Nevada, and will continue to provide status updates throughout the planning and project execution process.

Thank you again for your support of this disposal initiative.

Janet L. Appenzeller-Wing
Deputy Assistant Manager
for Environmental Management

PSG.8570.KKS

cc via e-mail:
C. B. Alexander, DOE/HQ (EM-3.2)
FORS
A. E. Clark, DOE/HQ (EM-3.2) FORS
C. M. Gelles, DOE/HQ (EM-30) FORS
M. A. Nielson, DOE/HQ (EM-3.2) FORS
J. W. Krueger, ORNL, Oak Ridge, TN
D. M. Rupp, N-I, Las Vegas, NV
K. K. Snyder, PSG, NNSA/NSO,
Las Vegas, NV
NSSAB Members and Liaisons
NNSA/NSO Read File

Nevada Site Specific Advisory Board

May 16, 2012

Ms. Kelly Snyder, DDFO
U.S. Department of Energy, Nevada Site Office
P. O. Box 98518
Las Vegas, NV 89193-8518

SUBJECT: Membership Candidates

Dear Ms. Snyder,

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12-01	12-07	12-08	12-29
12-26	12-15	12-13	12-18
		12-24	12-27

It is requested that Category One candidates be given the highest priority with candidates from Categories Two and Three selected to ensure maximum Board balance and diversity.

While we realize the final decision regarding membership lies with the Assistant Secretary of Environmental Management, we appreciate the opportunity to participate in the recruitment/interview process. We look forward to welcoming new members to the Board in the coming year thus ensuring continued stakeholder involvement in the Environmental Management activities at the Nevada National Security Site.

Sincerely,

Kathleen L. Bienenstein, Chair

cc: C. Lockwood, PSG, NNSA/NSO, Las Vegas, NV
D. Rupp, NREI, Las Vegas, NV
M. Nielson, DOE/HQ (EM-13) FORS
C. Alexander, DOE/HQ (EM-13) FORS
A. Clark, DOE/HQ (EM-13) FORS
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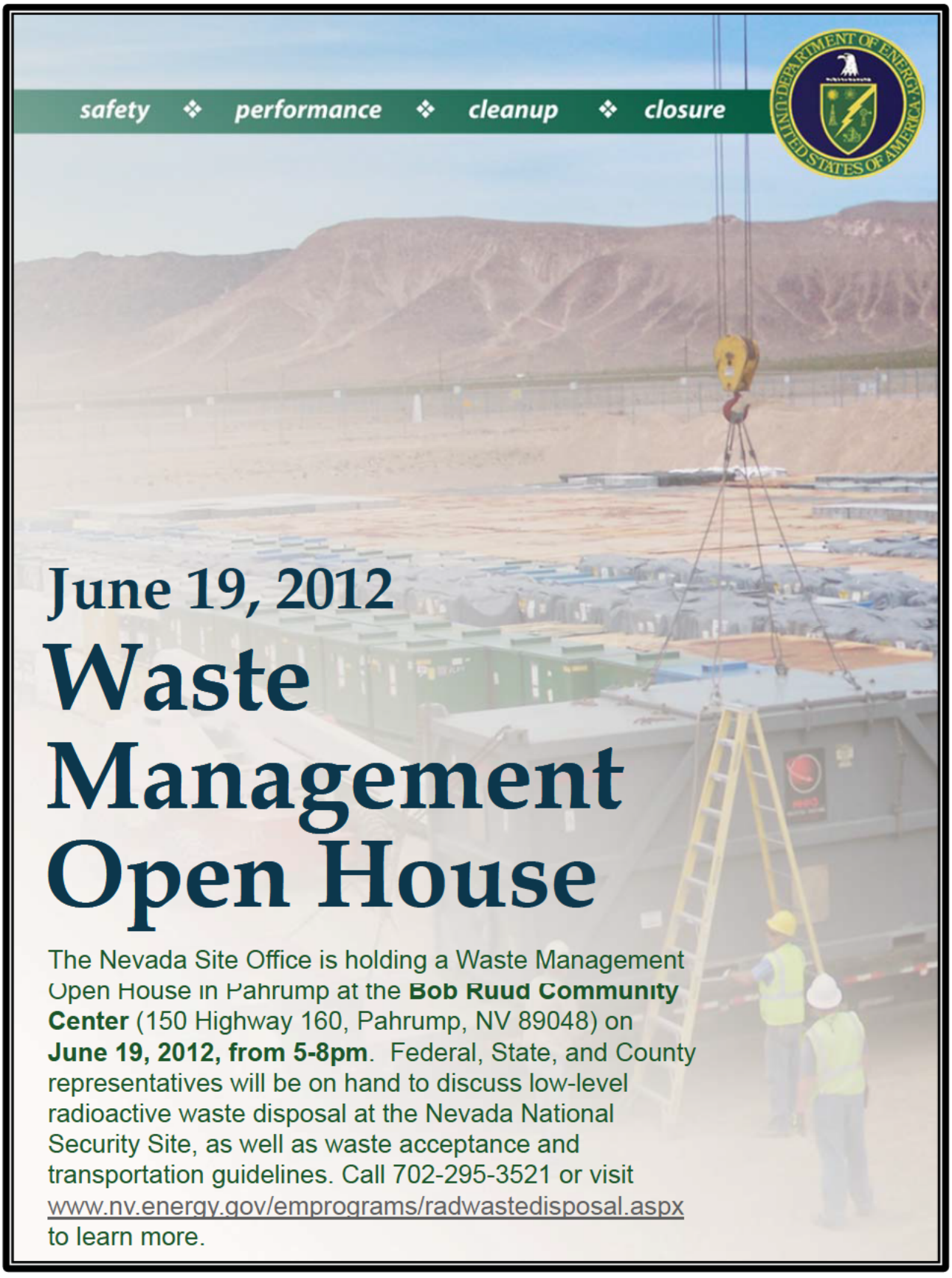
National Nuclear Security Administration Nevada Site Office



June 19, 2012

Waste Management Open House

The Nevada Site Office is holding a Waste Management Open House in Pahrump at the **Bob Ruud Community Center** (150 Highway 160, Pahrump, NV 89048) on **June 19, 2012, from 5-8pm**. Federal, State, and County representatives will be on hand to discuss low-level radioactive waste disposal at the Nevada National Security Site, as well as waste acceptance and transportation guidelines. Call 702-295-3521 or visit www.nv.energy.gov/emprograms/radwastedisposal.aspx to learn more.

LETTERS

Posted: May 12, 2012 | 2:03 a.m.
Updated: May 12, 2012 | 7:57 a.m.

Yucca Flats

To the editor:

In response to your Tuesday editorial on Yucca Mountain:

There may be a window of opportunity here to get something done that has needed doing for about 50 years. There is $10 million of unused money in Yucca Mountain funding, which the government doesn't want to spend on the project - but which the state of Nevada could surely use in our economy. We could use that money to fund testing by the Army Corps of Engineers to determine if the radioactive waste from Yucca Flats (13 miles east of Yucca Mountain) has, in fact, penetrated our soil on its way to contaminating our groundwater.

The waste from more than 800 nuclear tests conducted in the 1950s and 1960s has been sitting there for more than 50 years. While both sides of the Yucca Mountain debate argue over the danger of nuclear waste that isn't here yet, maybe someone should take a look at a million tons of it that is already here.

This would allow us to answer some questions. Is there enough moisture in our climate to take radioactivity through the soil and contaminate our groundwater? If the toxic problem is seeping into our soil, how fast is it moving? How deep do they have to go to reach soil that is not contaminated? Do we need a massive clean-up to put all the existing waste into water-proof bunkers? What would that cost? Where would the money come from? How long do we have before it is too late to clean up at all?

The clear and present danger is from Yucca Flats, not Yucca Mountain. It could be another 50 years before an opportunity like this comes again.

Dave Bender

Las Vegas

LETTERS

Groundwater issues already being studied

Posted: May 15, 2012 | 2:02 a.m.

To the editor:

Dave Bender's Saturday letter on contaminated groundwater was very timely. I have no comment on his suggestion to use uncommitted funds from the Yucca Mountain project, other than I assume the electric utility ratepayers who provided this money would want it refunded to them if not used as required by law.

I serve as a member of the Nevada Site Specific Advisory Board for Department of Energy environment programs. We are a group of private citizen volunteers who provide the assistant secretary for environmental management with recommendations on issues at the Nevada National Security Site, who many remember as the Nevada Test Site. Among those issues are clean-up standards and environmental restoration, including contaminated groundwater studies and work plans.

I assume Mr. Bender used the term Yucca Flats generically to include all historical underground testing areas, not just the specific Yucca Flat basin. There are higher priorities for contaminated groundwater studies than Yucca Flats. Highest priority is the Pahute Mesa underground testing area. The reason is that there is known radioactive contamination moving off the site boundaries to the southeast and this is where the closest members of the public reside. Second priority is the Frenchman Flat underground test area, for the same reason.

Although contamination in Yucca Flats may be higher due to the larger number of underground nuclear tests, this is a lesser priority given groundwater must travel longer distances to reach off site. Essentially we have more time to address Yucca Flat.

What makes Mr. Bender's letter timely is that our next public meeting is this Wednesday at 5 p.m. at the National Atomic Testing Museum, 755 E. Flamingo Road. At this meeting there will be two technical briefings on current groundwater contamination issues.

There is no fee and all interested members of the public are encouraged to attend.

John M. McGrail

Las Vegas