



AGENDA

CAB FULL BOARD MEETING

Centennial Hills Library
6711 North Buffalo Drive, Las Vegas, NV 89131

5:00 p.m. – March 10, 2010

1. **Open Meeting / Agenda Review** **Denise Rupp**, Facilitator
2. **Chair's Opening Remarks:**
 - Agenda Approval **Hal Sullivan**, Board Vice-Chair
3. **Public Comment** **Denise Rupp**, Facilitator
4. **History of the Nevada Test Site** **Darwin Morgan**, DOE
5. ♦♦♦BREAK♦♦♦
6. **Committee Updates:**
 - **Budget Committee** **Bob Gatliff**, Committee Member
 - FY 2012 Budget Prioritization
 - **Industrial Sites** **Kathy Bienenstein**, Committee Chair
 - CAU 114 – EMAD Recommendation
01-04-10 response from DOE
 - **Membership** **Kathy Bienenstein**, Committee Chair
 - CAB Membership Recommendation
12-21-09 response from DOE
 - Student Liaison Recommendation
01-14-10 response from DOE
 - **Outreach** **Hal Sullivan**, Committee Chair
 - Committee Status
 - Outreach Display
 - **Soils** **John McGrail**, Committee Chair
 - CAU 371 – Johnnie Boy Crater and Pin Stripe
Recommendation - 01-08-10 response from DOE
 - **Transportation Waste** **Hal Sullivan**, Board Vice-Chair
 - Mixed Low-Level Waste Cell Application
02-03-10 response from DOE
 - EM Newsflash – Low-Level Waste Disposal Cell
 - **UGTA** **Bob Gatliff**, Committee Chair
 - FY 2010 Drilling Operations
 - Frenchman Flat Peer Review
 - UGTA Strategy
7. **Work Plan Review** **Kelly Snyder**, DDFO

8. EM SSAB Update

- 01-21-10 EM SSAB Chairs Conference Call
- Spring Chairs Meeting, April 26-29, Oak Ridge, TN
 - Top 3 Issues and 1 Accomplishment
 - Delegates – Wegst and Sullivan
- 03-18-10 EM SSAB Chairs Conference Call

Hal Sullivan, Board Vice-Chair

Denise Rupp

Kelly Snyder, DOE DDFO

9. DOE Update:

- Environmental Management (EM) Monthly Report (January, February, March 2010)
- FY 2011 Budget Rollout
- Department of Energy 72-Hour Notification
- Groundwater Open House

Kelly Snyder, DOE DDFO

10. Other CAB Business:

- Next Full Board Meeting scheduled for 5:00 p.m. May 12, 2010
Atomic Testing Museum, Las Vegas, NV
 - Presentation: Current non-Environmental Management Activities at the Nevada Test Site

Hal Sullivan, Board Vice-Chair

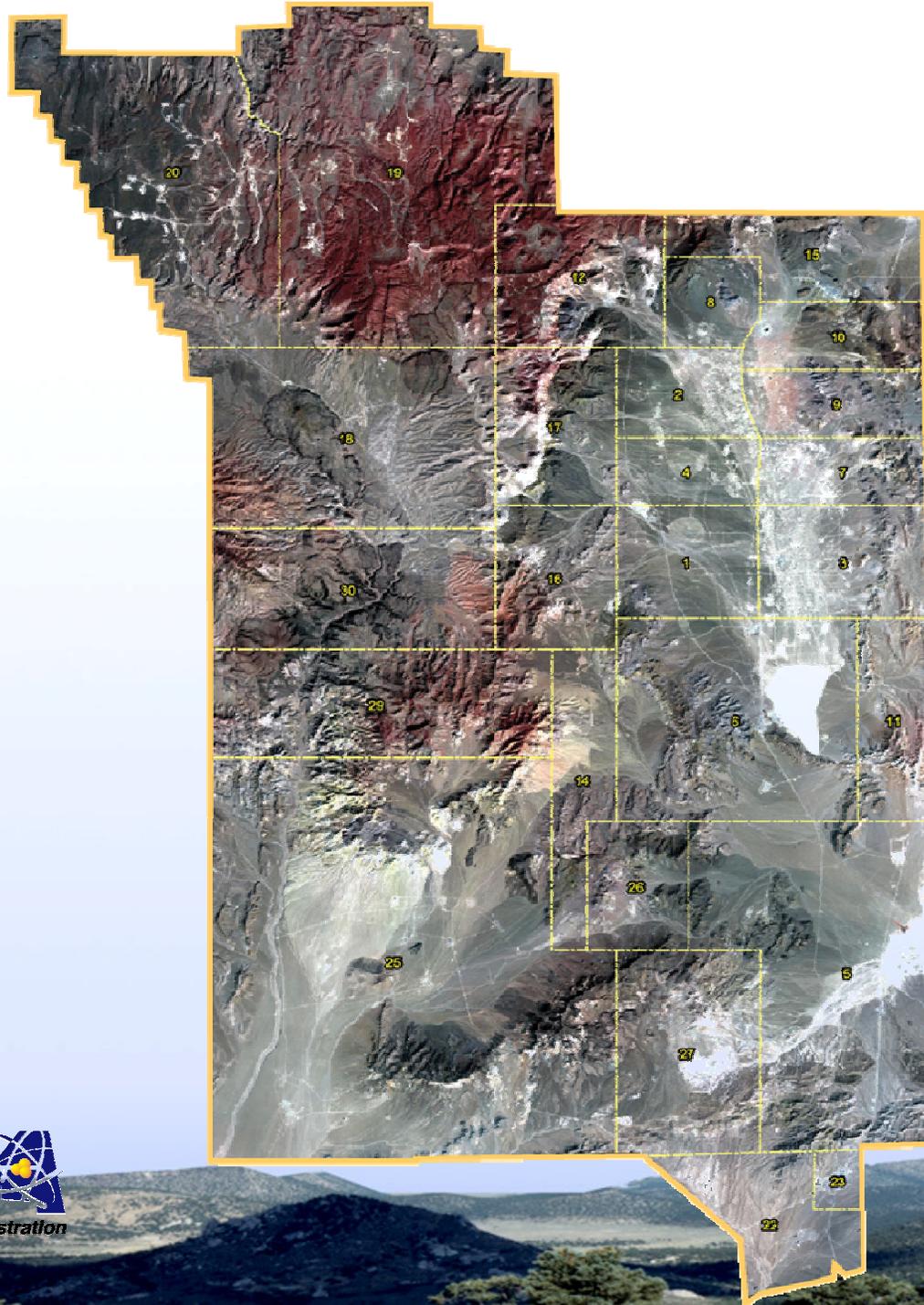
10. January, February, and March State of Nevada Notifications

Kelly Snyder, DOE DDFO

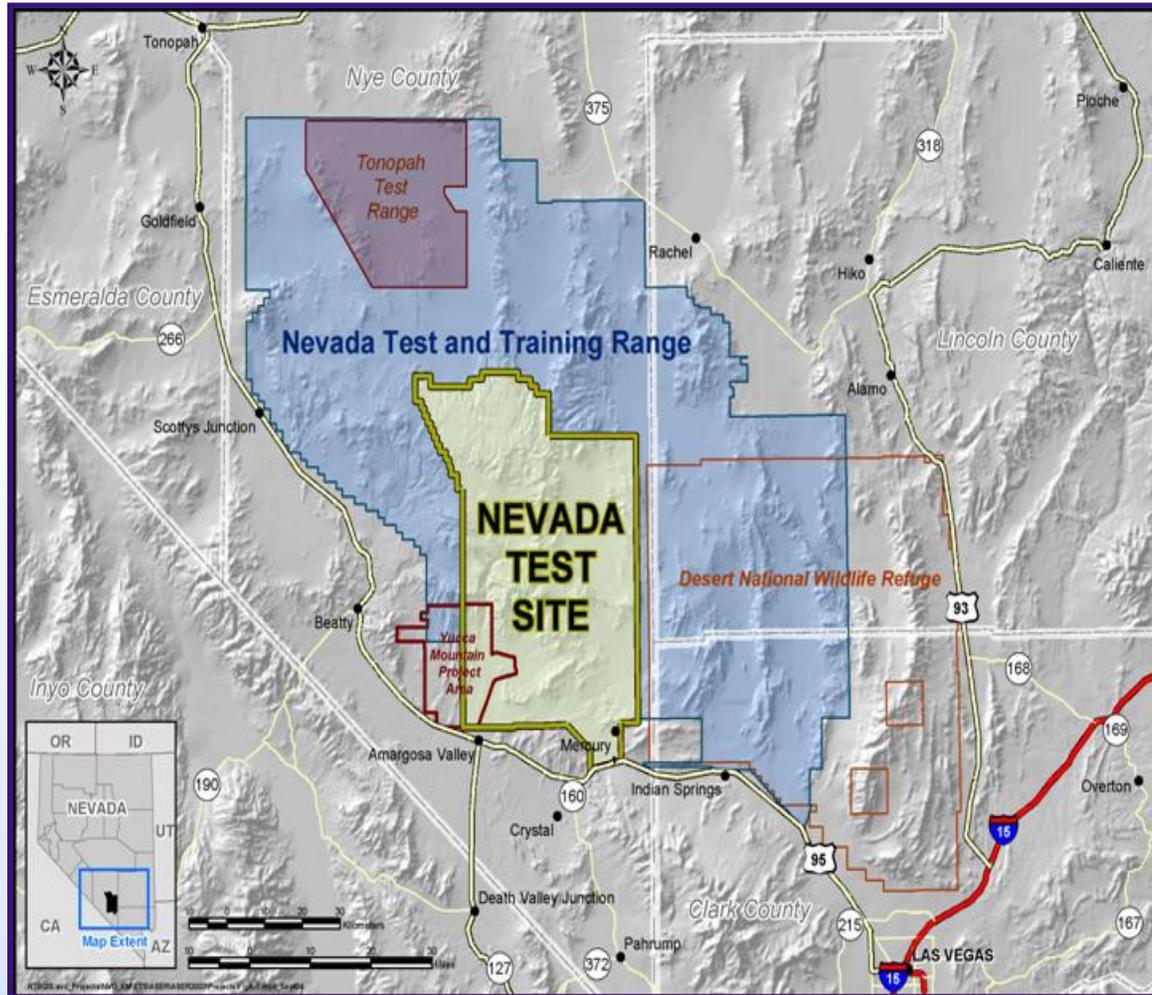
11. Meeting Wrap-Up / Assessment

Denise Rupp, Facilitator

Nevada Test Site: A Historical Look



The Nevada Test Site



Nuclear Testing Road to the Nevada Test Site

- U.S. enters World War II in 1941 after Japanese attack Pearl Harbor
- U.S. Manhattan Project begins developing first atomic bomb in 1942 to influence the outcome of the war
- Manhattan Project tests first atomic bomb in New Mexico on July 16, 1945, called “Trinity”
- U.S. drops two atomic bombs on two cities in Japan on August 6 and 9, 1945 – Japan surrenders August 14, 1945
- Nuclear testing begins in the South Pacific Ocean in 1946



Nevada Test Site Established in 1950

- Atomic testing in the South Pacific presented challenges
 - Logistics
 - Weather
 - Security
 - Safety
- Urgent need for continental test site
 - Top secret feasibility study, code named *Nutmeg*, commenced to search for a continental test site
 - Study concluded arid, southwest section of U.S. as an ideal location
- President Truman officially established Nevada Proving Grounds, now the Nevada Test Site, on December 18, 1950





Atmospheric Testing at the Nevada Test Site

- 100 atmospheric tests conducted at the Nevada Test Site from January 1951 through July 1962 to study weapons-related effects, as safety experiments, and to study peaceful effects of nuclear explosions
- Conducted aboveground in the atmosphere
 - Tower 42
 - Balloon 24
 - Airdrop 19
 - Surface 11
 - Rocket 3
 - Airburst 1

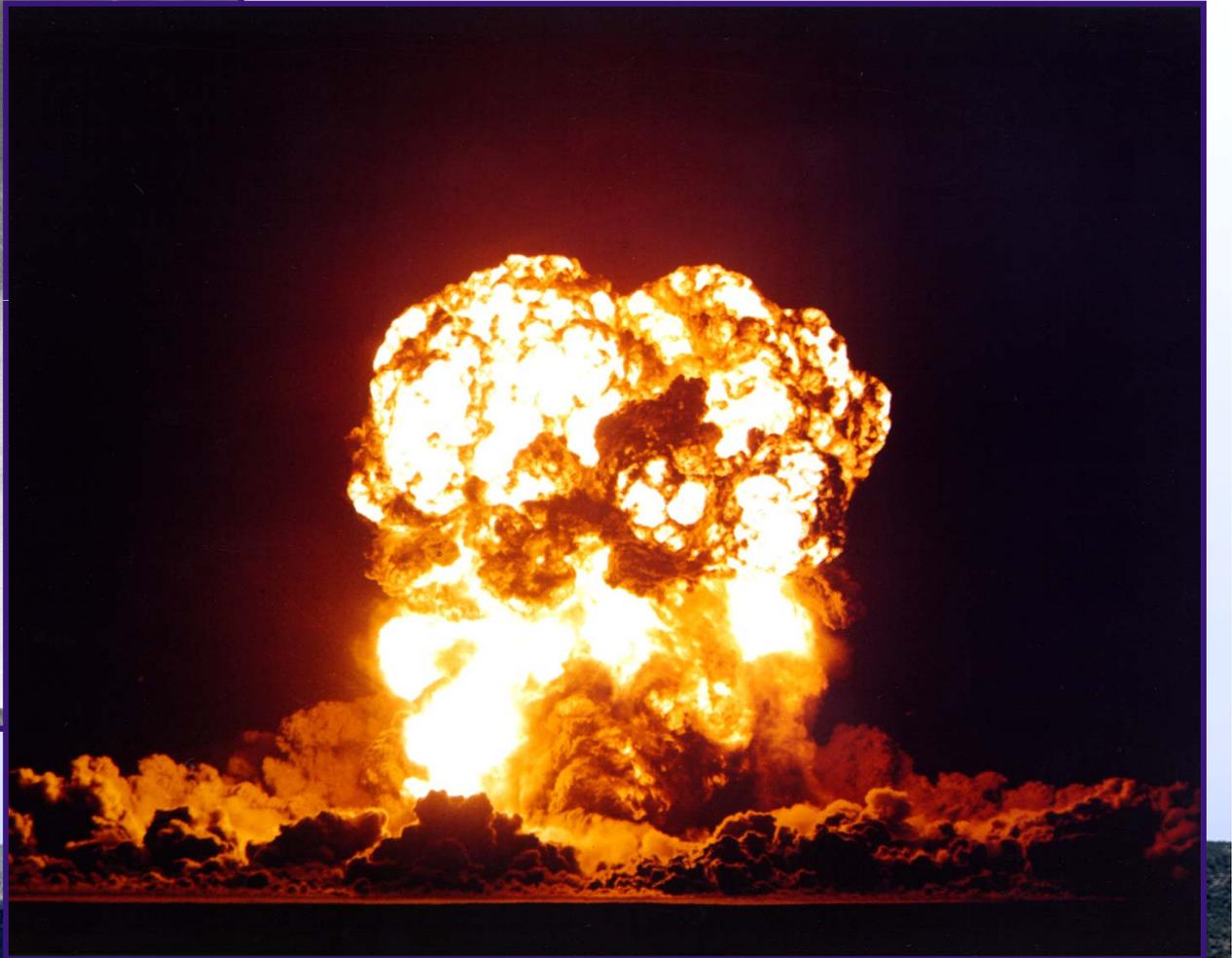
Climax – an airdrop test at the Nevada Test Site on June 4, 1953







Smoky – tower soars 700 feet into the air above Yucca Flat at the Nevada Test Site; first atomic tower test of this height (**Smoky** detonation below)





Balloon used in the detonation of **Charleston** on September 28, 1957

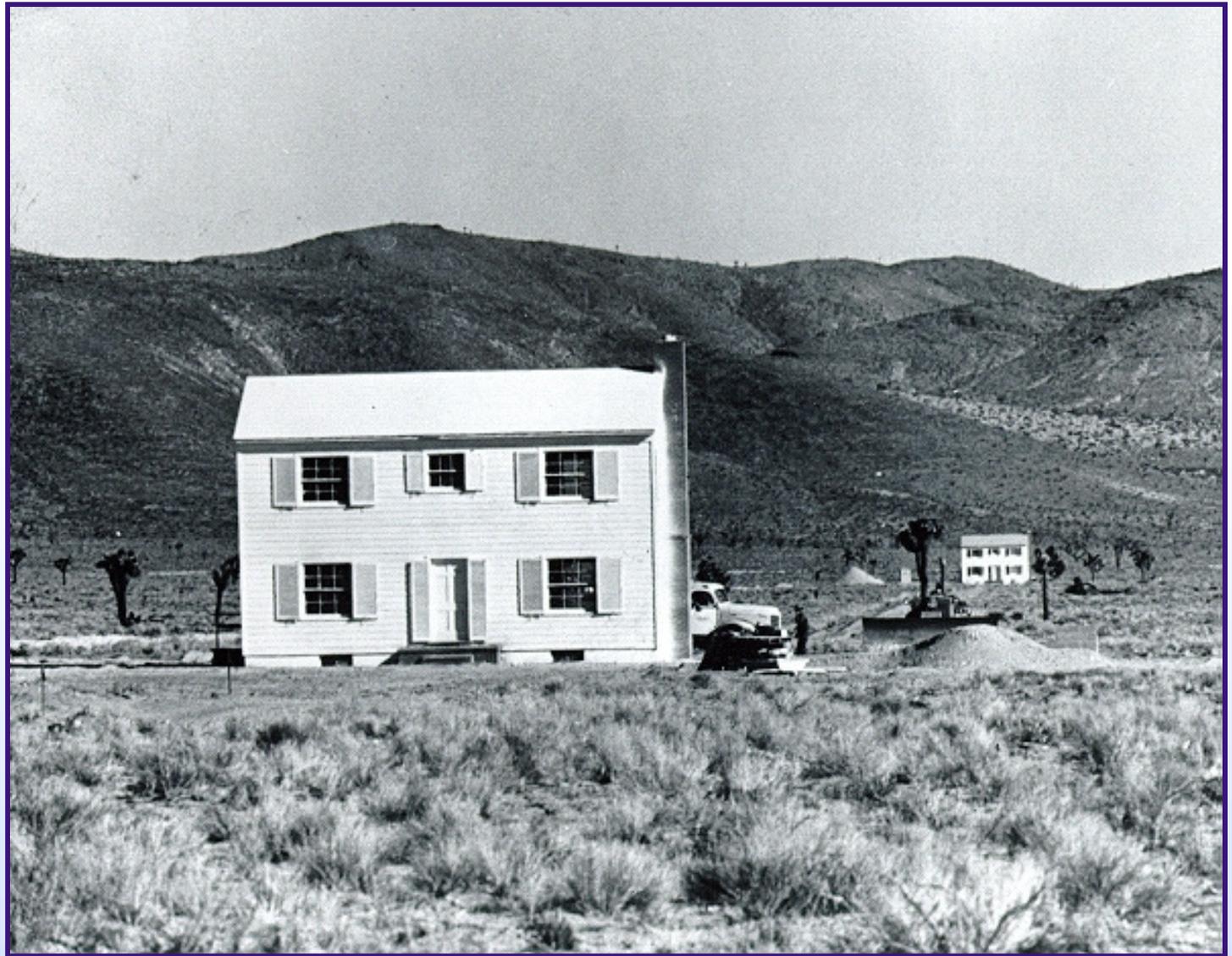
Fireball of **Charleston** lights Yucca Flat at the Nevada Test Site; 12-kiloton device was suspended by a balloon at a height of 1,500 feet

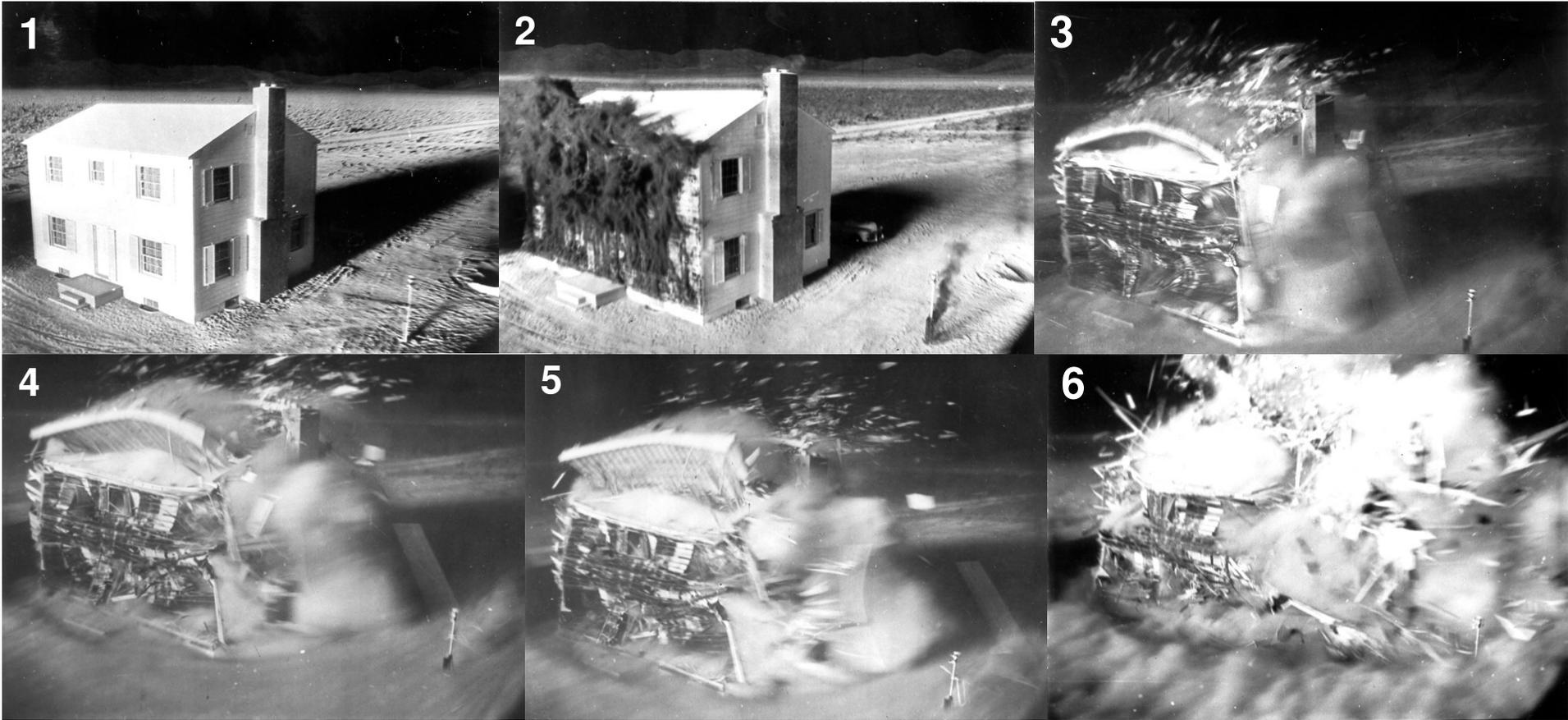


Two colonial two-story homes were erected at 3,500 feet and 7,500 feet from **Annie** ground zero

House at 3,500 feet was completely destroyed

House at 7,500 feet was badly damaged



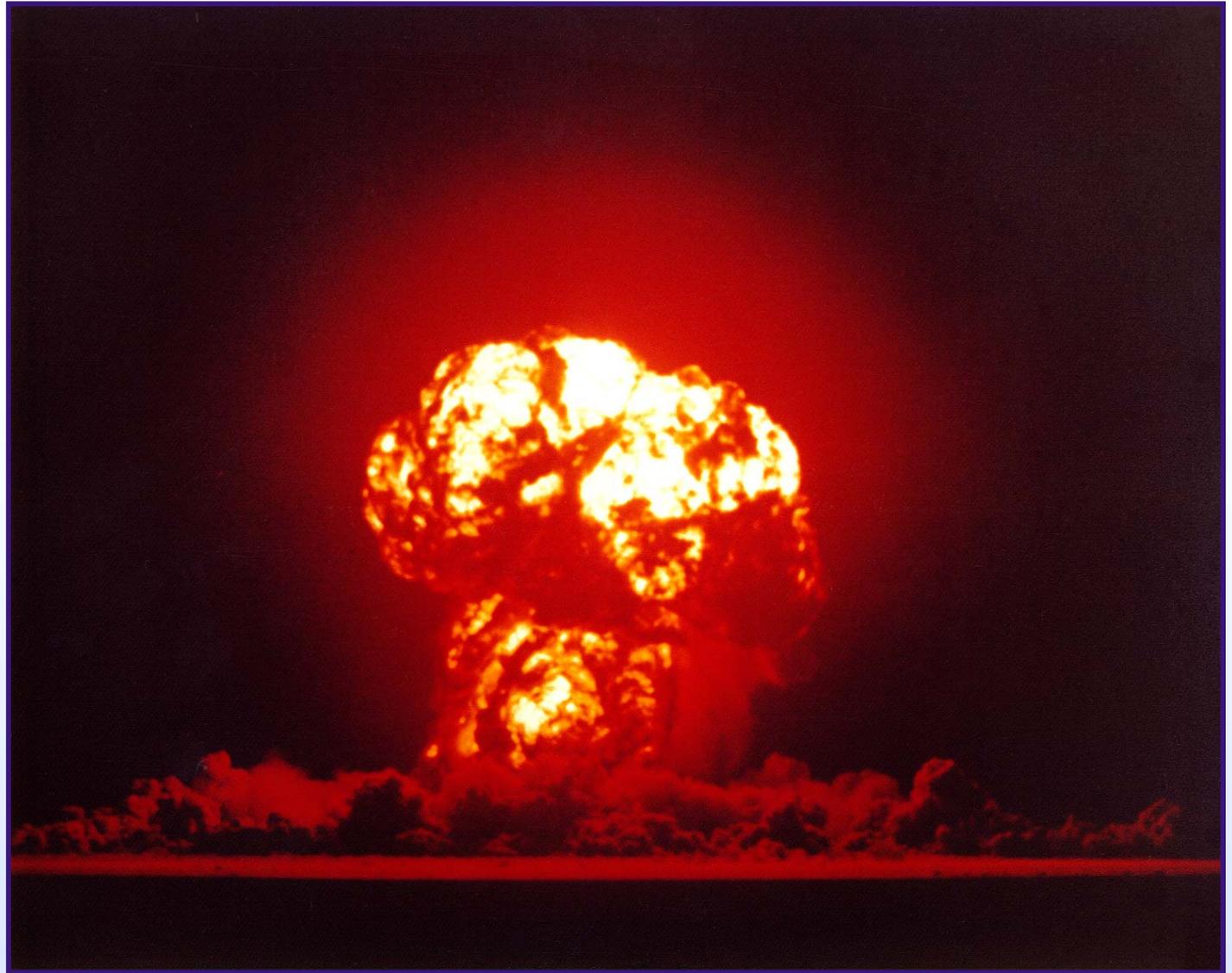


Sequential photos show the complete destruction of the colonial style house located 3,500 feet from **Annie** ground zero



Apple-2 – 29-kiloton nuclear test detonated from the top of a 500-foot tower at the Nevada Test Site on May 5, 1955

65-associated experiments conducted at various distances from ground zero, including 48-civil effects tests on different types of typical American homes





Located 7,800 feet from **Apple-2** ground zero, this existing two-story wooden house was one of two such structures erected for civil effects tests; the other one, located 5,500 feet from ground zero, was severely damaged



Located 10,500 feet from **Apple-2** ground zero, this existing two-story brick house was one of two such structures erected for civil effects tests; the other house located 4,700 feet from ground zero was demolished beyond repair

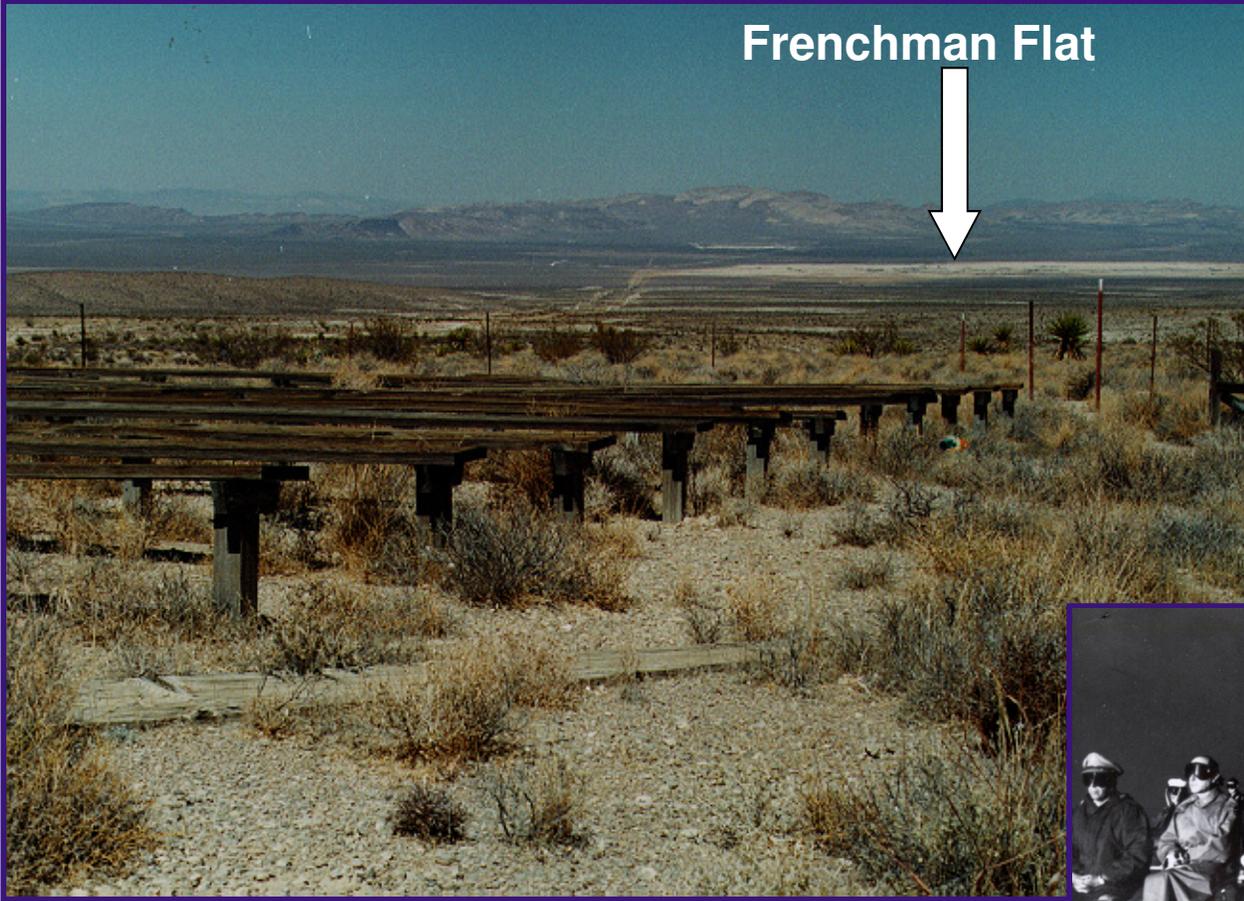


**OPERATION DOORSTEP
and
OPERATION CUE**

**Film #0800033
(Two Films Combined)**



Frenchman Flat

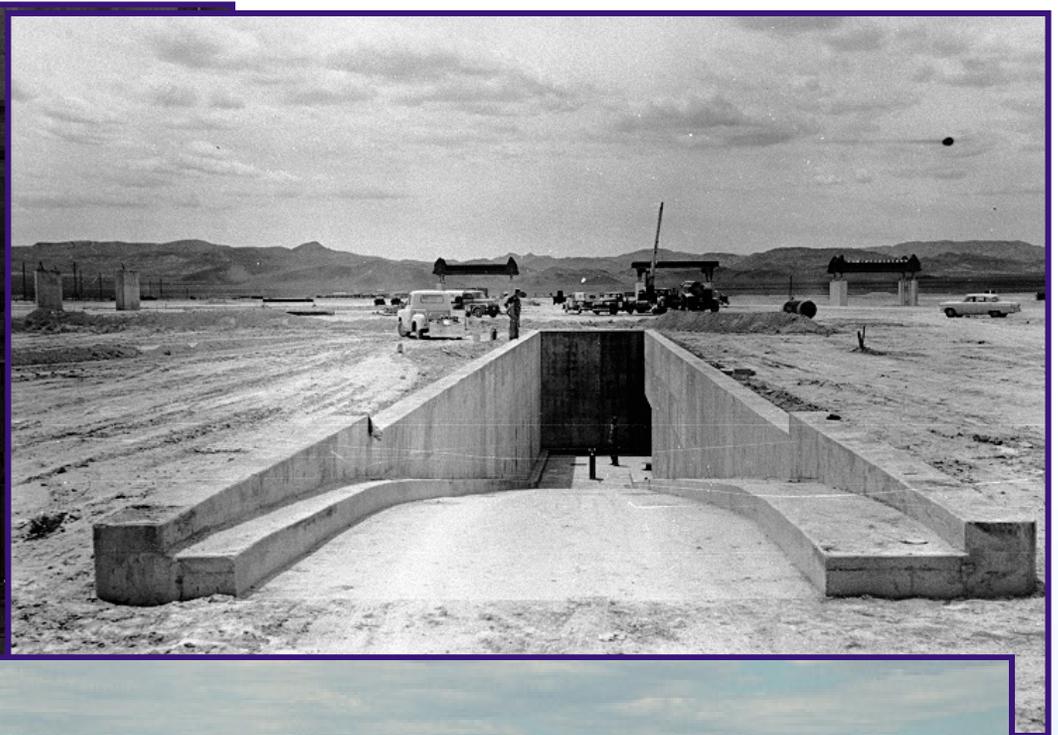


Seated at these bleachers, located alongside the Mercury Highway, official observers viewed the detonation of 14 atmospheric tests in Frenchman Flat



37-kiloton **Priscilla**
test detonated on
June 24, 1957 on the
Nevada Test Site
Frenchman Flat



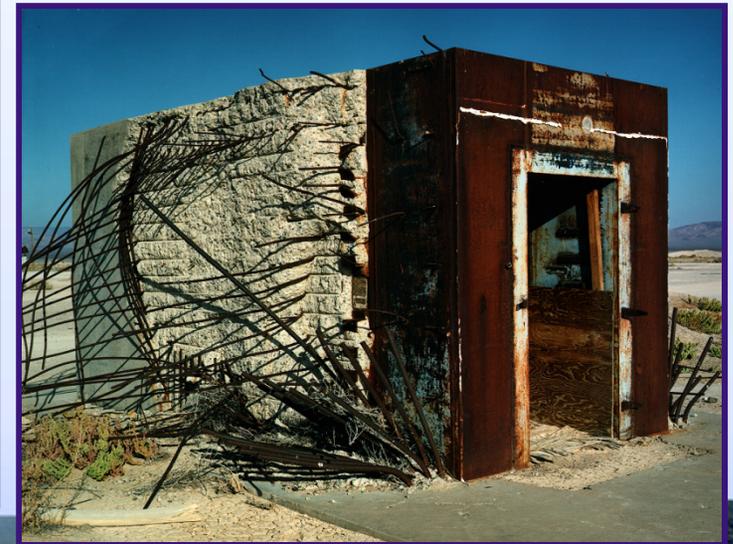


900-square foot underground dual purpose garage and mass shelter built and tested for **Priscilla** in 1957





Mosler Safe Company designed a 12-foot by 8-foot reinforced concrete vault for the **Priscilla** test in 1957; trim on the steel door was loosened by the blast, but the door itself was not damaged – contents placed within the safe remained intact





Four railroad trestles constructed for **Operation Plumbbob** in 1953 – only one structure remains in place today with visible significant bowing of the steel “I” beams



The End of Atmospheric Testing

- U.S. agreed to observe Limited Test Ban Treaty in October 1963, effectively ending atmospheric testing

Little Feller I test location 46 years after the last atmospheric test was detonated on July 17, 1962



Life in Mercury



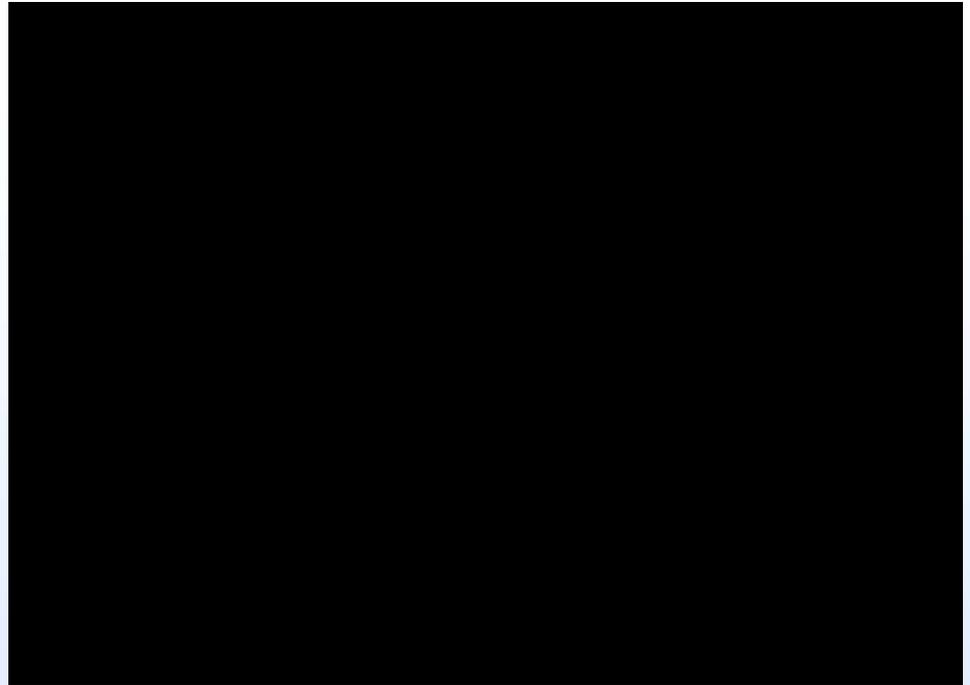
Life in Mercury



Nuclear Rocket Development at the Nevada Test Site – Project Rover

- U.S. launched nuclear rocket development program in 1955
- Ground tests conducted at facilities in southwest corner of Nevada Test Site
- Four basic segments:

KIWI tested non-flyable nuclear test reactors



Nuclear Rocket Development at the Nevada Test Site – Project Rover



PHOEBUS Extension of KIWI, designed to produce higher power levels and longer duration operations than KIWI reactors – PHOEBUS 2A was the most powerful, non-flyable nuclear rocket reactor ever built. Reactor operated for about 32 minutes; 12 minutes at power levels more than a million watts

Nuclear Rocket Development at the Nevada Test Site – Project Rover

- NERVA (Nuclear Engine for Rocket Vehicle Applications) developed the first nuclear rocket engine suitable for space flight; and
- RIFT (Reactor In-Flight Test) objectives were to design, develop, and flight-test a NERVA-powered vehicle as an upper stage for a Saturn V launch vehicle

Project Rover a technical success, terminated in 1973 as a result of the cancellation of Saturn V launch vehicle program in 1969



March 1963

**President Kennedy visits
Nuclear Rocket
Development Station in
Area 25**

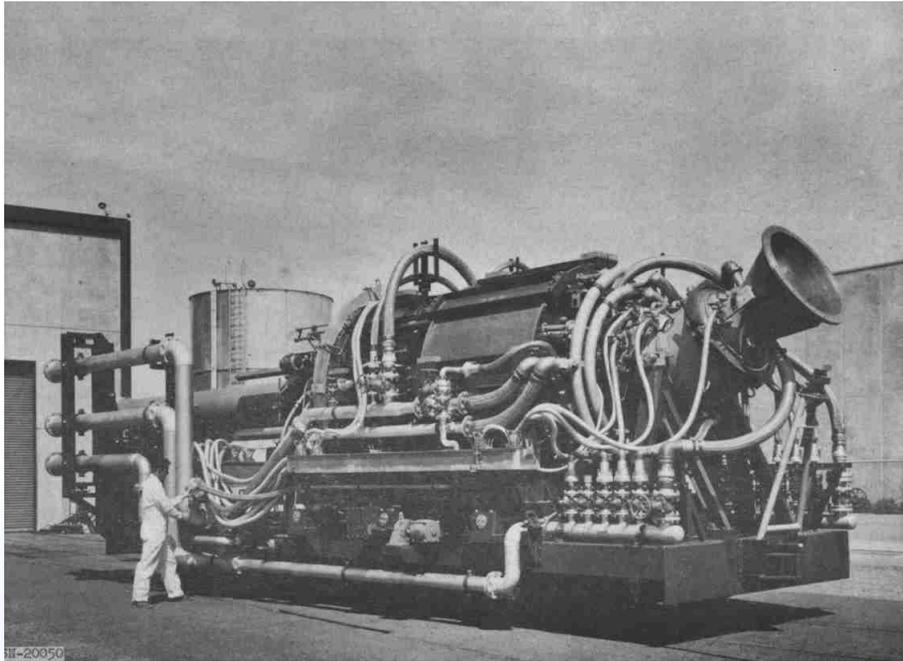
Engine Test Stand 1



Nuclear Rocket Development at the Nevada Test Site – Project Pluto

- Code name for the project to develop a nuclear powered ramjet for a Supersonic Low-Altitude Missile (SLAM).
- The principle was to draw in air at the front of the vehicle under ram (great pressure), heat it to make it expand, and then exhaust it out the back, providing thrust.
- The reactor designed for the experiment was named “**Tory**” and was capable of 35,000 pounds of thrust.
- Testing was conducted at the **Pluto Facility** in Area 26 at the Nevada Test Site.





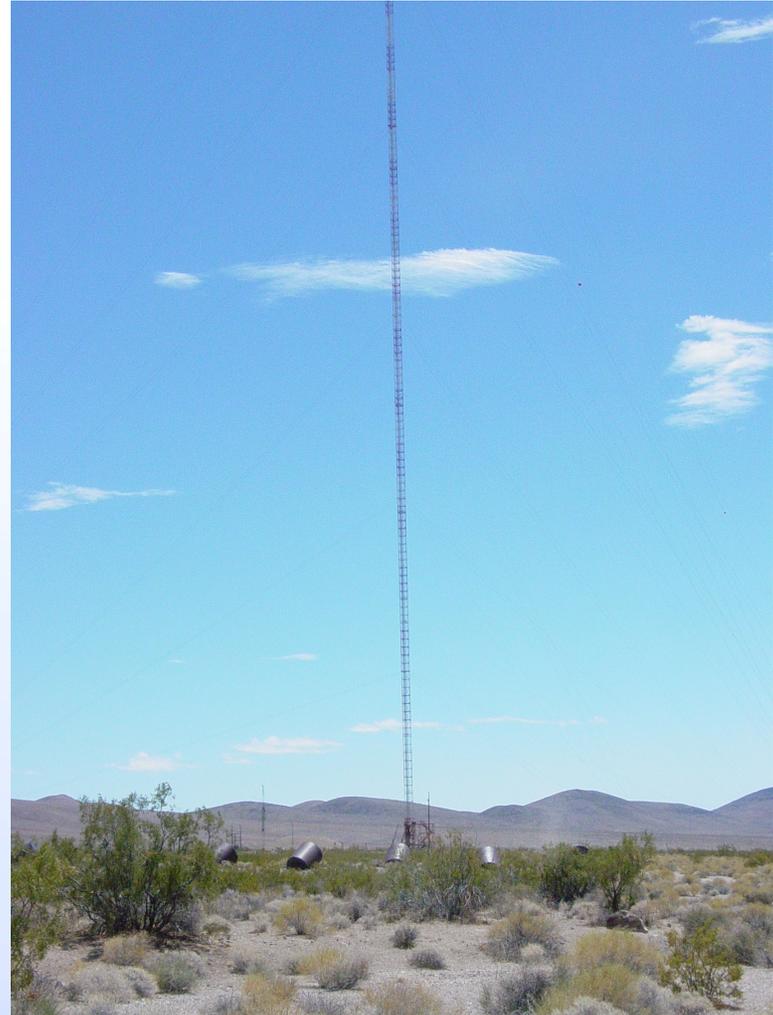
On May 14, 1961, the world's first nuclear ramjet engine, Tory II-A, mounted on a railroad car, roared to life for just a few seconds.



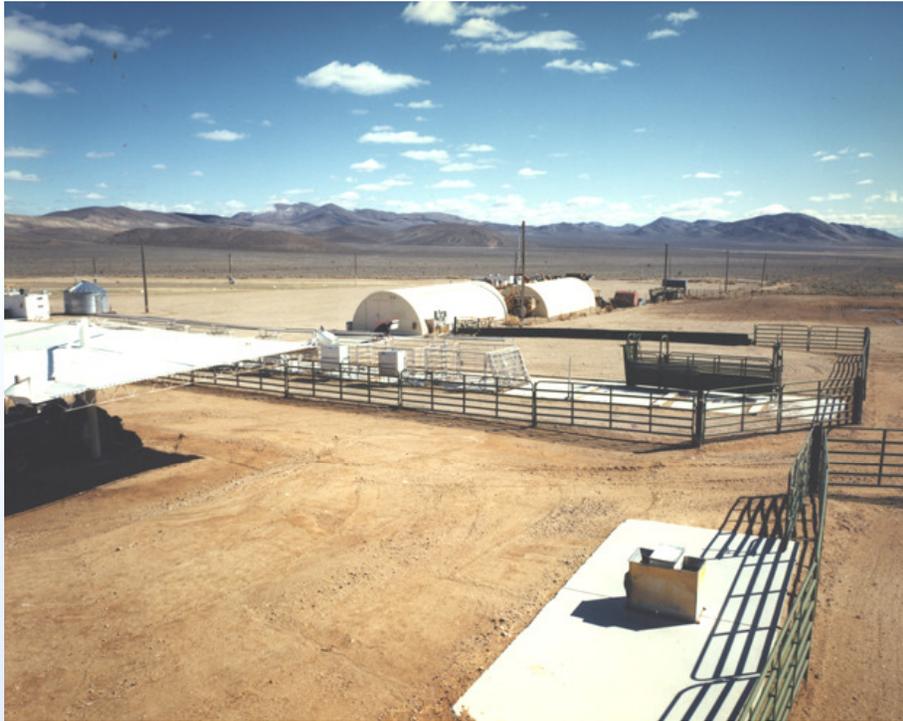
Three years later, Tory II-C was tested for 5 minutes. Despite its success, the Pentagon and Pluto sponsors had second thoughts about the project and on July 1, 1964, seven years after its inception, Project Pluto was cancelled.

BREN Tower

- 1,527 ft. tall, largest free-standing structure west of Mississippi River, 73 feet taller than Empire State Building; 378 feet taller than Stratosphere
- 1962 experiment in Area 4 to accurately estimate radiation doses received by survivors of Hiroshima and Nagasaki
- Mock Japanese village erected at base of Tower



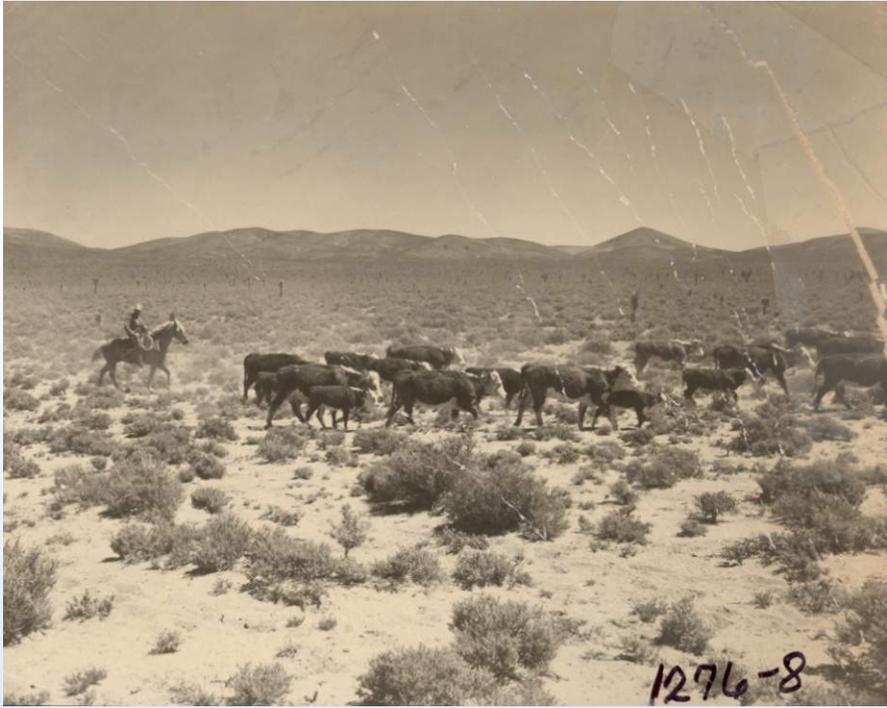
EPA Farm



- Operated 16 years
- Study radionuclide uptake in cows, horses, pigs, goats, chickens and crops
- Closed in December 1981

AEC had its own brand







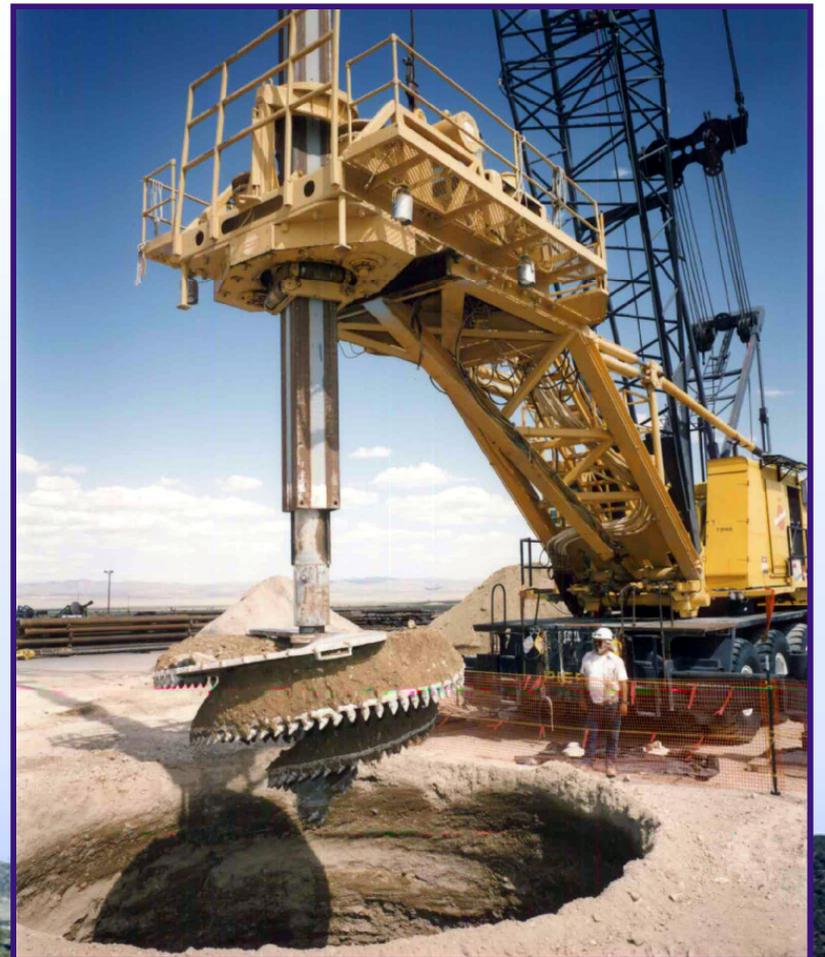
Underground Testing at the Nevada Test Site

- First underground nuclear test was Uncle on November 29, 1951
- Last underground nuclear test, Divider, detonated on September 23, 1992
- Underground nuclear testing occurred at depths of 600 to 5,000 feet
- 828 underground nuclear tests conducted at Nevada Test Site

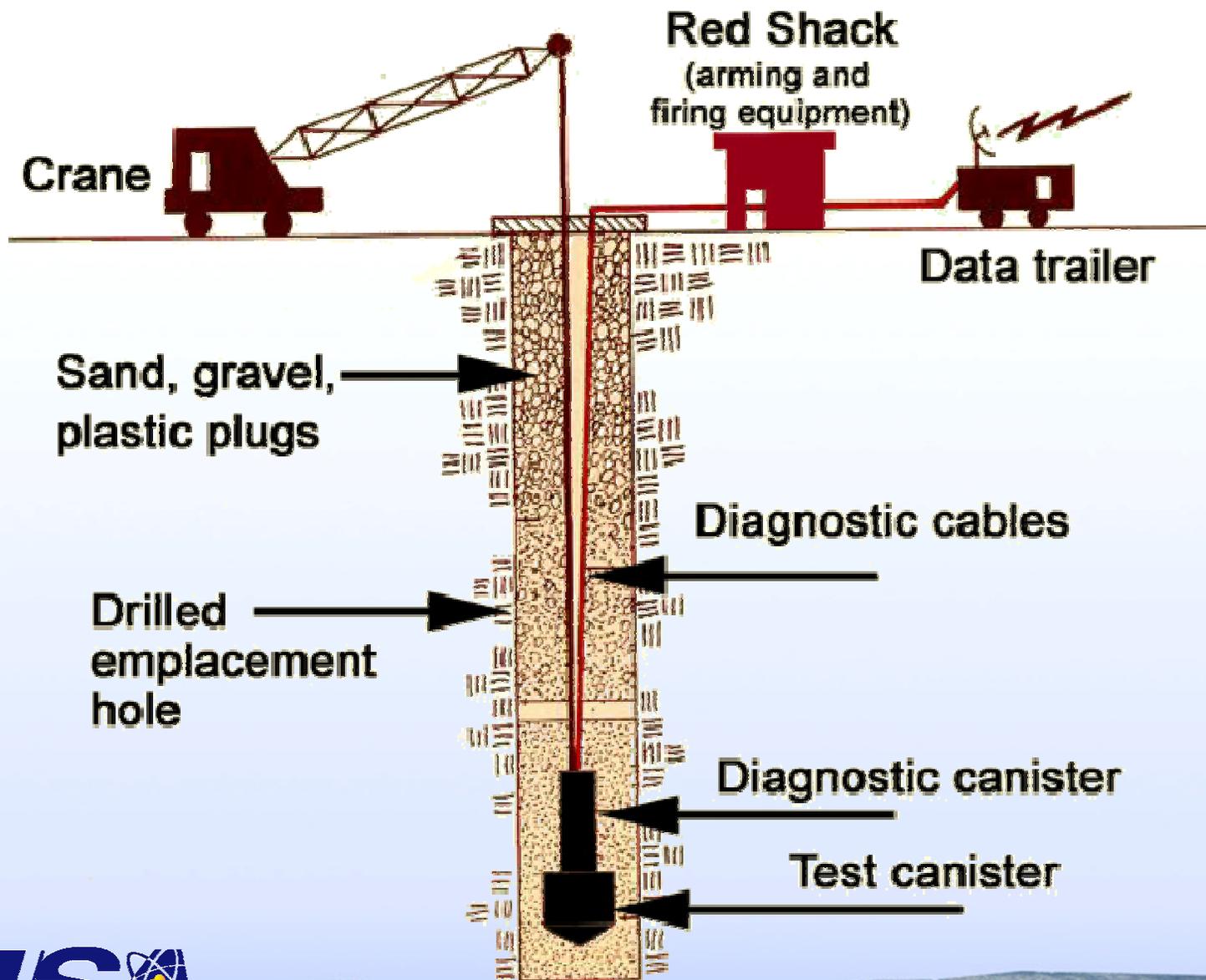


Underground Testing at the Nevada Test Site – Big Hole Drilling

- Holes were six to 12 feet in diameter
- A large hole required the removal of more than 4,280 cubic yards of soil
- If the depths of holes drilled for underground nuclear tests since 1961 were combined, it would total about 280 miles
- Drilling techniques developed at the Nevada Test Site continue to be used throughout the world



Underground Test





Control Point

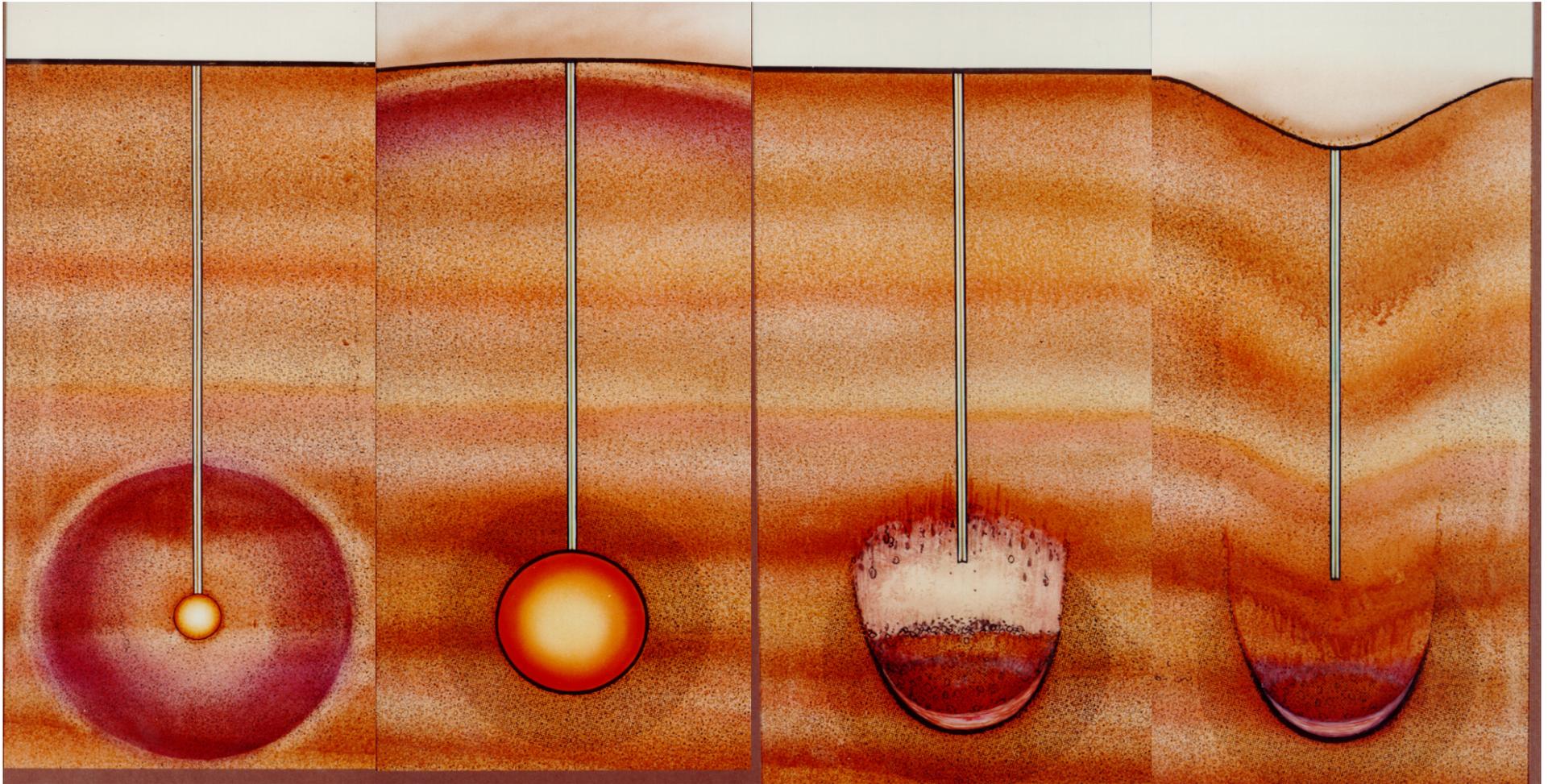
CP-1 was the firing control point for majority of tests.

Federal Test Controller with scientific panel determined “go” or “no go” on shot day.





Underground Testing at the Nevada Test Site Subsidence Crater Formation



Plowshare Program

They shall beat their swords into plowshares, and their spears into pruning-hooks: nation shall not lift up sword against nation, neither shall they learn war any more. [Isaiah 2:4]

- Peaceful Uses for Nuclear Weapons
 - Radiopharmaceuticals
 - Gas Stimulation
 - Earth Moving, Trenching
- 40+ Experiments Conducted

July 6, 1962:

Sedan was part of the Plowshare Program to develop peaceful uses for nuclear weapons, in this case - massive earth excavation.

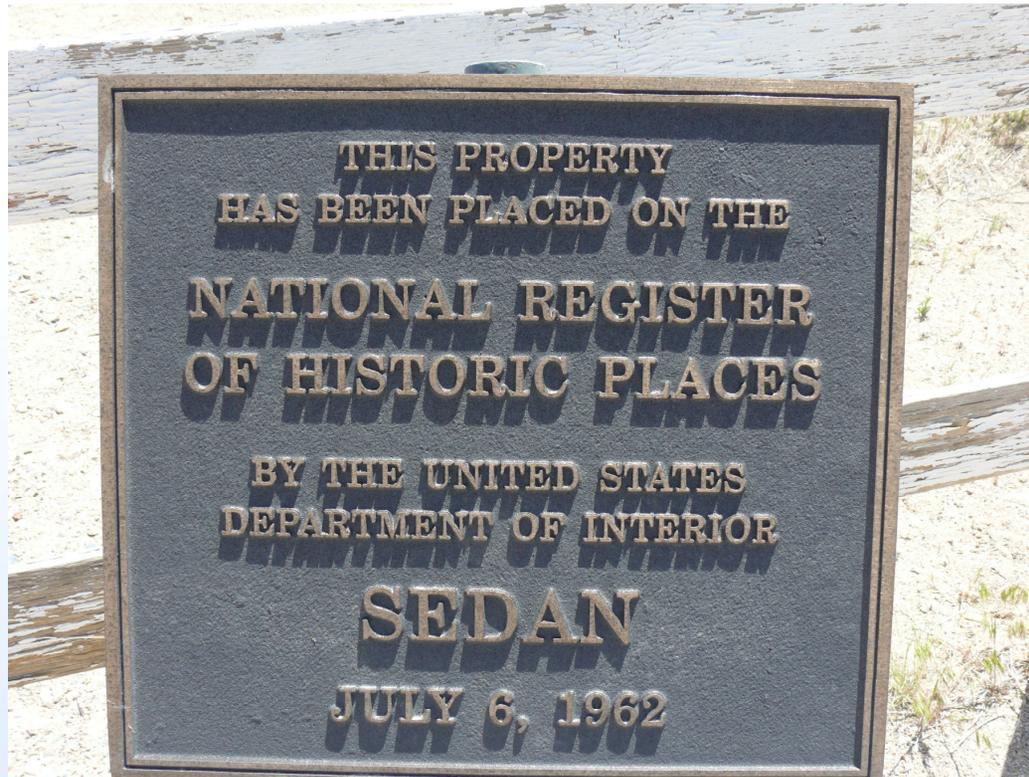
**Approximately
12 million tons
of earth was
displaced.
Creating a
crater 635 feet
deep and 1,280
feet in
diameter.**



Historical Landmarks

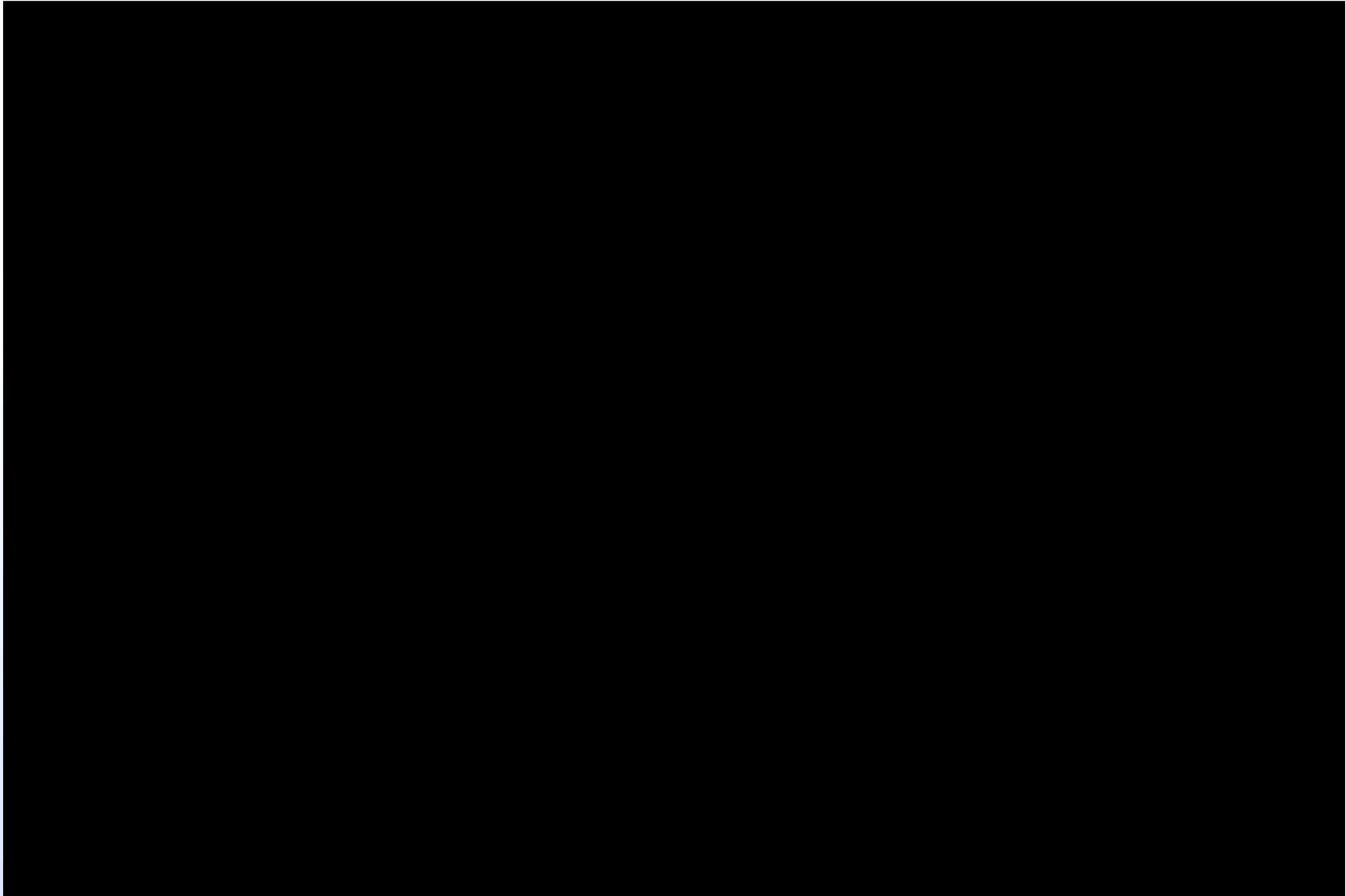
Sedan

**Apple II
Houses**



**Frenchman
Flat**

**Japanese
Houses**





When underground nuclear testing was discontinued in 1992, preparation for the Icecap (left) Gabbs (below left) and Greenwater tests (below) ceased - today, the emplacement towers remain as they were in 1992



United States Nuclear Tests

Location	Tests	Detonations
South Atlantic	3	3
Pacific	106	106
Alamogordo, NM	1	1
Amchitka, AK	3	3
Carlsbad, NM	1	1
Central, NV	1	1
Fallon, NV	1	1
Farmington, NM	1	1
Grand Valley, CO	1	1
Hattiesburg, MS	2	2
Nellis Range	5	5
Rifle, CO	1	3
NTS Atmospheric	100	100
NTS Underground – U.S.	804	
NTS Underground – U.S./U.K.	24	921
	1,054	1,149

A test is defined in the Threshold Test Ban Treaty as either a *single underground nuclear explosion* (detonation) or *two or more underground nuclear explosions* (detonations) conducted within an area delineated by a circle having a diameter of two kilometers and conducted within a total period of time not to exceed 0.1 second.

For More Information

For more information on
U.S. Department of Energy,
National Nuclear Security Administration
Nevada Site Office programs and activities:
visit our website at www.nv.doe.gov
or call the
Office of Public Affairs at
(702) 295-3521





Community Advisory Board for Nevada Test Site Programs

Members

Walter Wegst, PhD, *CAB Chair*
Harold Sullivan., *CAB Vice-Chair*
Chair, Outreach Committee

Kathleen Bienenstein, Chair
Membership and
Industrial Sites Committees
Robert Gatliff, Chair
Underground Test Area (UGTA) Committee
David Hermann
Robert Johnson, Chair
Transportation/Waste Committee
John M. McGrail, P.E., Chair
Soils Committee
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Theodore Oom
Jackson Ramsey, PhD
Theodore Schweitzer
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Bureau of Federal Facilities,
State of Nevada Division of
Environmental Protection
Genne Nelson
U.S. National Park Service

Administration

Denise Rupp, Administrator
Navarro Research & Engineering, Inc.
Kelly Snyder, DDFO
U.S. Department of Energy,
Nevada Site Office

March 11, 2010

Mr. Scott Wade
Assistant Manager for Environmental Management
U.S. Department of Energy, Nevada Site Office
P. O. Box 98510
Las Vegas, NV 89193-8518

SUBJECT: Community Advisory Board for Nevada Test Site Programs
(CAB) Recommendations for Fiscal Year (FY) 2012 Budget
Prioritizations

Dear Mr. Wade:

The CAB Budget Committee has completed its annual review and prioritization of the U.S. Department of Energy Nevada Site Office (DOE NSO) Environmental Management (EM) sub-projects for the FY 2012 budget submittal. The committee presented its recommendations to the Full Board at its March 10, 2010 meeting, where they were approved.

The Board reviewed and prioritized the four EM technical sub-projects. The Board continues to place the highest priority on the Underground Test Area sub-project. This ranking reflects our commitment to working with EM to ensure budget dollars are available for continued drilling and monitoring efforts in support of groundwater issues at the Nevada Test Site.

Following is the CAB's recommended FY 2012 budget ranking with reasons for its ranking. A variety of factors were considered including: health and safety risks, regulatory requirements and completion schedules. We also considered any significant changes in sub-project areas from last year and applied that information to arrive at our current recommendations.

1. Underground Test Area (UGTA)
 - Continue drilling to calibrate and validate flow models
 - Refine existing models utilizing ongoing data
 - Highest potential impact on the public, particularly offsite rural communities

Mr. Scott Wade
U.S. Department of Energy, Nevada Site Office
March 11, 2010
Page 2

2. Low-Level and Mixed Low-Level Waste
 - Provides a vital resource for the entire DOE Complex
 - Costs to re-start operations after temporary closure would exceed normal operating costs
 - Important to close the original 92 acres
3. Soils
 - Continue momentum of FY 2009, 2010 and 2011 progress
 - Funds are necessary to work toward agreement with the Air Force
 - Additional funds would allow for accelerated clean up
4. Industrial Sites
 - Current plan and approach does not require additional funds
 - Approaching completion of remaining Corrective Action Units
 - Allows for additional time to identify an alternate use for the EMAD facility as opposed to demolition (see December 17, 2009 CAB recommendation)

Thank you for the opportunity to participate in the annual budget prioritization and for the assistance provided by the EM staff. Each federal project and sub-project director took the time to meet with the CAB Budget Committee and provided detailed information. We sincerely appreciate this support and look forward to your response regarding this year's budget submittal.

Sincerely,

Walter F. Wegst, Chair
Community Advisory Board
for Nevada Test Site Programs

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



Department of Energy
National Nuclear Security Administration
Nevada Site Office
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Las Vegas, NV 89193-8518



JAN - 4 2010

Walt Wegst, Chair
Community Advisory Board
for Nevada Test Site Programs
232 Energy Way
North Las Vegas, NV 89030

RESPONSE TO THE COMMUNITY ADVISORY BOARD (CAB) FOR NEVADA TEST SITE PROGRAMS' 12-17-09 RECOMMENDATION LETTER REGARDING CORRECTIVE ACTION UNIT (CAU) 114 ENGINE MAINTENANCE ASSEMBLY AND DISASSEMBLY (EMAD) FACILITY CLOSURE

We sincerely appreciate the CAB's efforts in reviewing the closure options for CAU 114, the EMAD facility. The EMAD facility played a unique and significant role in the development of a nuclear propulsion engine for use in space exploration. The CAB's interest in exploring the option of preserving the building as a museum is understandable and appreciated given its historical significance. We agree the economic and logistical factors do not, unfortunately, support a museum option. Every reasonable effort will be made to make historical artifacts from the building available to the Atomic Testing Museum. Please keep in mind, some potentially desirable artifacts may not be available due to possible risks associated with radiological, chemical or biological contamination.

Current planning will proceed for the ultimate demolition of the facility to grade and clean closure of CAU 114 by the end of FY 2013. Depending upon conditions encountered, a land use restriction may be implemented to close below grade contamination in place. Activities planned for FY 2010 include stabilization of potentially hazardous conditions in the building, characterization and removal of asbestos-containing materials, draining and stabilization of all systems that may contain liquids, and the planning and preparation for future field activities. The Nevada Site Office (NSO) Environmental Restoration Project (ERP) will continue to explore re-use inquiries and options if identified prior to the start of demolition, currently planned for early 2012.

NSO ERP appreciates the CAB's interest in EMAD and the efforts made to review the closure options. We will continue to keep the CAB informed on this project.

Robert F. Boehlecke
Federal Project Director
Environmental Restoration Project

PSG:5974.RB

cc via e-mail:

M. A. Nielson, DOE/HQ (EM-13) FORS

C. A. Brennan, DOE/HQ (EM-13) FORS

A. E. Clark, DOE/HQ (EM-13) FORS

D. M. Rupp, NREI, Las Vegas, NV

C. G. Lockwood, PSG, NNSA/NSO,
Las Vegas, NV

K. K. Snyder, PSG, NNSA/NSO,
Las Vegas, NV

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National Nuclear Security Administration
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DEC 21 2009

Walt Wegst, Chair
Community Advisory Board
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232 Energy Way
North Las Vegas, NV 89030

RESPONSE TO THE COMMUNITY ADVISORY BOARD (CAB) FOR NEVADA TEST SITE PROGRAMS' FY 2010 MEMBERSHIP RECOMMENDATION

First and foremost, I would like to thank the CAB Membership Committee for actively participating in the U.S. Department of Energy's (DOE) FY 2010 CAB membership recruitment drive. I have received the CAB's December 17, 2009, recommendation letter identifying seven membership candidates the CAB endorsed.

The DOE Nevada Site Office (NSO) will review all of the applications received and forward the NSO's proposed candidates to DOE Headquarters. When making this recommendation, the NSO will consider the CAB's recommendation for potential members as well as DOE requirements for Board diversity. I anticipate we will receive approval for new members from the Assistant Secretary for Environmental Management in the spring of 2010.

If you have questions, please contact me at (702) 295-2836 or via e-mail at snyderk@nv.doe.gov.


Kelly K. Snyder
Deputy Designated Federal Officer

PSG:5964.KS

cc via e-mail:
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C. A. Brennan, DOE/HQ (EM-13) FORS
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K. K. Snyder, PSG, NNSA/NSO,
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Department of Energy
National Nuclear Security Administration
Nevada Site Office
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JAN 14 2010

Walt Wegst, Chair
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RESPONSE TO THE COMMUNITY ADVISORY BOARD (CAB) FOR NEVADA TEST SITE PROGRAMS' MEMBERSHIP RECOMMENDATION FOR STUDENT LIAISONS

Thank you for your December 17, 2009, recommendation for the addition of two high school student liaisons to the CAB. The Department of Energy (DOE) Nevada Site Office (NSO) is actively considering this recommendation. Inquiries will be made of other Environmental Management Site-Specific Advisory Board (EM SSAB) sites to determine if and how they incorporate student representatives as well as with Clark County and Nye County School Districts.

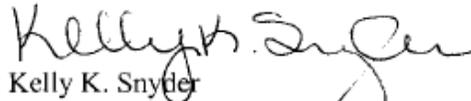
Some questions have already arisen regarding specifics of such a student liaison and the logistics of maintaining the position. I would like to propose a meeting with the Membership Committee to discuss the following topics:

- local and/or rural participation and travel
- length of term (school year versus fiscal year)
- attendance requirements
- student incentive
- participation focus
- mentors

This meeting would greatly assist the DOE in better understanding the CAB's perspective and determining a path toward the development of a successful liaison position.

The CAB will be informed of the results of the NSO's review of the relevant information and the potential development of a student liaison position on the CAB.

If you have questions, please contact me at (702) 295-2836 or via e-mail at snyderk@nv.doe.gov.


Kelly K. Snyder
Deputy Designated Federal Officer

PSG:6027.KS

cc via e-mail:

C. A. Brennan, DOE/HQ (EM-13) FORS
A. E. Clark, DOE/HQ (EM- 13) FORS
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JAN 14 2010

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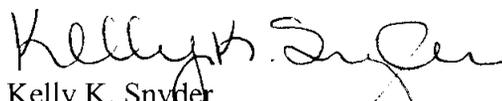
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Kelly K. Snyder
Deputy Designated Federal Officer

PSG:6027.KS

Walt Wegst, Chair

-2-

JAN 14 2010

cc via e-mail:

C. A. Brennan, DOE/HQ (EM-13) FORS

A. E. Clark, DOE/HQ (EM- 13) FORS

M. A. Nielson, DOE/HQ (EM- 13) FORS

D. M. Rupp, NREI, Las Vegas, NV

C. G. Lockwood, PSG, NNSA/NSO, Las Vegas, NV

K. K. Snyder, PSG, NNSA/NSO, Las Vegas, NV

NNSA/NSO Read File



Community Advisory Board for Nevada Test Site Programs

...citizens working together on environmental issues



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What is the CAB?

a group of southern Nevada volunteers providing recommendations to the Department of Energy on clean up activities at the Nevada Test Site



Meetings

- All meetings are open to the public
- Full Board meetings: Typically held the evening of the second Wednesday of odd-numbered months
- Usually in Las Vegas, but occasionally throughout southern Nevada

Member Responsibilities

- Attend Full Board meetings
- Actively participate in a committee
- Review materials with timely response
- Commit 10-20 hours per month
- No technical experience is required

Committees

The CAB includes a variety of committees focusing on specific clean up activities at the Nevada Test Site. Public participation on committees does not require CAB membership. Committees typically meet every other month.

Budget

...reviews and prioritizes funding for clean up projects

Groundwater (UGTA)

...issues related to groundwater contamination, characterization, drilling and modeling

Industrial Sites

...issues related to decontaminating and disposing of obsolete buildings and facilities

Membership

...recruits new members

Outreach

...increases public awareness of the Community Advisory Board

Soils

...issues related to clean-up standards used to remediate surface soil contaminated by historic nuclear testing

Transportation/Waste

...issues related to transportation of hazardous and radioactive waste and waste disposal activities

Phone
702-657-9088

Website
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Email
NTSCAB@nv.doe.gov



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



JAN 08 2010

Walt Wegst, Chair
Community Advisory Board
for Nevada Test Site Programs
232 Energy Way
North Las Vegas, NV 89030

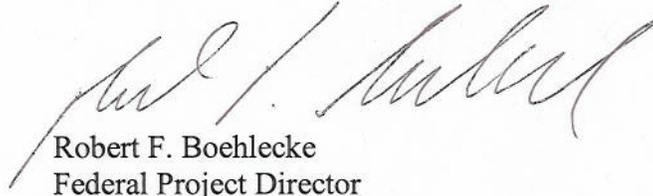
RESPONSE TO THE COMMUNITY ADVISORY BOARD (CAB) FOR NEVADA TEST SITE PROGRAMS' 12-17-09 RECOMMENDATION LETTER REGARDING CORRECTIVE ACTION UNIT (CAU) 371, JOHNNIE BOY CRATER AND PIN STRIPE

We appreciate the CAB's efforts in reviewing the closure options for CAU 371, Johnnie Boy Crater and Pin Stripe. After reviewing data for these sites, evaluating the closure options, and receiving your recommendation, we have decided to pursue closure in place for CAU 371. We are currently working toward this goal through the Federal Facility Agreement and Consent Order process. This process requires us to present a formal recommendation to the State of Nevada Department of Environmental Protection (NDEP), respond to comments, and receive formal acceptance of our approach from NDEP prior to implementation.

As recommended in your letter, we are currently evaluating how to address the two potential exposure scenarios (Industrial Use and Occasional Use). Ultimately, our recommendation to the NDEP for closure of these sites will identify an exposure scenario based on the site-specific factors including distribution of contamination, site configuration and controls, as well as current and potential land use.

The closure recommendation will be finalized and documented in a Corrective Action Decision Document (CADD). The CADD will include specific information on any posting, fencing or other physical and administrative controls that will be included in the closure recommendation. Our current milestone with NDEP for completion of the CADD is April 2010. However, NSO may pursue an extension to this milestone to allow for a combined Corrective Action Decision Document and Closure Report (CADD/CR). The National Nuclear Security Administration Nevada Site Office (NNSA/NSO) Environmental Restoration Project (ERP) pursues a CADD/CR when only minor corrective actions are needed (e.g., fencing and posting) as agreed to by NDEP. Under this scenario, a new milestone will be negotiated with NDEP for completion of the CADD/CR to allow for finalization of the CADD/CR after completion of the specified closure activities. Either the CADD or CADD/CR will be made available to the CAB.

NNSA/NSO ERP appreciates the interest of the CAB in this project and the efforts made by the CAB to review the closure options. We will continue to keep the CAB informed on this project. If you have further questions, please contact Kelly Snyder at (702) 295-2836.



Robert F. Boehlecke
Federal Project Director
Environmental Restoration Project

PSG:6010.RB

cc via e-mail:

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C. A. Brennan, DOE/HQ (EM-13) FORS
A. E. Clark, DOE/HQ (EM-13) FORS
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Department of Energy
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Nevada Site Office
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Las Vegas, NV 89193-8518



FEB 03 2010

Community Advisory Board
for Nevada Test Site Programs
232 Energy Way, M/S 505
North Las Vegas, NV 89030

DECEMBER 8, 2009, COMMUNITY ADVISORY BOARD (CAB) RECOMMENDATION
ON RESOURCE CONSERVATION RECOVERY ACT (RCRA) PART B MIXED LOW-
LEVEL WASTE CELL APPLICATION

We have received your December 8, 2009, recommendation concerning the new Mixed Waste Disposal Cell located in Area 5 of the Nevada Test Site. We appreciate the CAB's thorough review of the Department of Energy's application to the State of Nevada Division of Environmental Protection (NDEP) and your support of the new cell. The application has been granted conditional approval by NDEP. We will keep the CAB informed regarding final approval and construction.

Should you have any questions, please contact Kelly Snyder at (702) 295-2836.

E. Frank Di Sanza
Federal Project Director
Waste Management Project

WMP:6105.KS

cc via e-mail:

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March 4, 2010

Nevada Site Office Environmental Management

EM NEWS FLASH

Nevada Test Site One Step Closer to Opening New Mixed Low-Level Waste Disposal Cell

February 17th, 2010 marked the beginning of the design phase on a new [mixed low-level waste disposal cell](#) at the Nevada Test Site. The U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office Management and Operating contractor, National Security Technologies, LLC, awarded Andrews Engineering, Inc., the design and construction sub-contract on the heels of a December of 2009 conditional permit granted by the State of Nevada Division of Environmental Protection (NDEP) allowing for construction and operation of the new cell. The permit falls under the Resource Conservation and Recovery Act (RCRA), a law that identifies the requirements for managing hazardous wastes in the United States.

The new mixed low-level waste cell will be an excavated trench with an impermeable liner and leachate collection system. Under RCRA, the cell is permitted to accept a “mix” of both radioactive waste and hazardous waste, which can include debris, soil, trash, equipment, tools and protective clothing.

The new disposal unit will be constructed near the existing mixed low-level waste disposal cell at the Nevada Test Site’s Area 5 Radioactive Waste Management Site. This unit has been operating under a RCRA Disposal Permit since December 2005. The terms of this permit allow the existing cell to remain open until the end of November 2010 or until it reaches its capacity of 20,000 cubic meters.

Constructing the replacement mixed low-level waste cell, which will hold approximately 25,000 cubic meters of waste, will ensure continued disposal capabilities beyond this closure date.

Once Andrews Engineering, Inc., finalizes the design on the new cell, which is expected during the summer of 2010, the Nevada Site Office can submit the plans to NDEP and obtain full permit approval. The construction phase will immediately follow, beginning in late summer with a final completion date scheduled for early 2011.



You have received this announcement as a member of the U.S. Department of Energy National Nuclear Security Administration Nevada Site Office Environmental Management distribution list. If you would like to be removed from the list, please call 702-295-3521 or e-mail your request to envmgt@nv.doe.gov with the words "EM News Flash Remove" in the subject line. If you know anyone who would like to begin receiving these articles, please have them send a request to envmgt@nv.doe.gov with the words "EM News Flash Subscribe" in the subject line. You can also follow us on Facebook at [NNSA Nevada Site Office](#).



safety ❖ performance ❖ cleanup ❖ closure



FY 2010 Work Plan

changes reflected in blue

<i>(numbers reflect priority)</i>	Task	Committee Assignment	Completion Date	Status
1	Corrective Action Unit (CAU) 114 Engine Maintenance, Assembly, and Disassembly Facility (EMAD) – evaluate possible clean up scenarios DOE is considering and make recommendation regarding path forward for remediation site	Industrial Sites	Dec-09	recommendation submitted 12/17/09
2	2 Locomotive and 4 Train Cars used in DOE activities at the Nevada Test Site – review possible use/disposal	Industrial Sites	Mar-10 July-10	
3	New Mixed Low-Level Waste Disposal Cell – provide recommendation during State of Nevada public comment period regarding CAB’s stance on Resource Conservation Recovery Act (RCRA) Permit for construction and utilization of new MLLW disposal cell	Transportation/ Waste	Dec-09	recommendation submitted 12/8/09
4	FY 2012 Budget – provide recommendation regarding the CAB’s FY 2012 sub-project funding prioritization	Budget	Mar-10	recommendation submitted 3/10/10
5	UGTA Approach for Lower Risk CAUs – year-long education opportunity in anticipation of future FY recommendation exploring possibility of moving from modeling to monitoring approach	UGTA	n/a Sept-10	
6	Pahute Mesa Drilling Campaign Wells – evaluate DOE’s potential uses for offsite UGTA wells and provide recommendation regarding path forward	UGTA	Mar-10	removed from plan 2/9/10 - recommendation needed FY 2012 - ongoing updates FY2010/11
7	Membership Recruitment – recruit, interview and recommend potential Board members	Membership	Jan-10	recommendation submitted 12/17/09
8	Waste Volumes and Transportation - research and analyze waste volume moving along waste transportation routes as well as alternative reporting of shipments and make recommendations	Transportation/ Waste	TBD	
9	Groundwater Models – review and make recommendations regarding DOE’s updated groundwater model flow paths	UGTA	Mar-10	removed from plan 2/9/10 - recommendation needed FY 2012 - ongoing updates FY2010/11

<i>(numbers reflect priority)</i>	Task	Committee Assignment	Completion Date	Status
10	CAU 372, Area 20 Cabriole/Palanquin Unit Craters – evaluate possible closure scenarios DOE is considering and make recommendation regarding path forward for closing the site	Soils	Jan-10 July-10	
11	Groundwater Wells Completion Reports – review and make recommendations on completion reports for ER-20-7, ER-20-8, ER-20-8#2, and all FY 2010 wells	UGTA	TBD Sept-10	
12	Operation Clean Desert Enhancement – explore and make recommendations on possible science activities to enhance EM Outreach’s Operation Clean Desert program	Outreach	TBD	removed from plan 3/2/10
13	CAB Outreach Display – Develop a CAB outreach display to increase CAB awareness	Outreach	May-10	
14	CAU 371, Johnnie Boy Crater and Pin Stripe – evaluate possible closure scenarios DOE is considering and make recommendation regarding path forward for closing the site	Soils	Dec-09	recommendation submitted 12/17/09
15	Explore possibility of CAB-sponsored science Fair in conjunction with Beatty schools in 2009/2010 school year	Outreach	May-10	removed from plan 3/2/10 - not within CAB purview
16	DOE Public Education – make recommendations to DOE regarding ongoing public education of test site activities/history	Outreach	ongoing	removed from plan 3/2/10
17	Low-Level Waste Sub-Project Funding Cut – provide recommendation regarding ~\$17 million cut in funding since FY 2009	Budget	Mar-10	removed from plan 3/3/10
18	DOE Land Withdrawal – review and make recommendation regarding DOE’s withdrawal in response to land-use issues raised by the State of Nevada Attorney General	Transportation/ Waste	TBD	removed from plan 11/19/09 - land transfer completed

Environmental Management's Monthly Report to the CAB January 2010

Low-Level Waste (LLW)

Activities (December)

- As of December 31, 2009, the cumulative LLW volume received for FY 2010 is 321,875 ft³ in 568 shipments. The cumulative mixed low-level waste (MLLW) volume received for FY 2010 is 12,870 ft³ in 24 shipments. LLW Operations has worked 15,400 hours since its last lost-time accident (September 2009).
- During the month of December, the LLW Sub-Project conducted one (1) Radioactive Waste Acceptance Program (RWAP) impromptu survey of NSTec in Mercury, NV.
- During the week of December 7, 2009, the Waste Management staff participated in the PermaFix Users' Conference in Nashville Tennessee. Project staff presented the MLLW disposal requirements to the generators MLLW.
- On December 17, 2009, the Nevada Division of Environmental Protection (NDEP) issued conditional approval for a new MLLW Disposal unit. It is currently scheduled to be operational in February 2011; however, the Waste Management Project is exploring its options to accelerate the new cell's construction to be operational by November 30, 2010 (the expected operational closure date for the existing MLLW Disposal Unit).
- On December 21, 2009, the Y-12 generator (TN) informed the Nevada Site Office that it inadvertently sent a PCB contaminated waste stream to the Nevada Test Site (NTS) for disposal. The generator is making arrangements to remove the container and ship it to a treatment/disposal facility in Northern Utah by January 15, 2010. A Corrective Action Request (CAR) was issued to the generator and the waste stream suspended. Y-12 is working with the Nevada Site Office to discuss what happened and determine how reoccurrence will be prevented.
- In December, a LLW transportation carrier from Argonne National Laboratory (ANL) used the 215 beltway in Las Vegas, Nevada to transport LLW to the Nevada Test Site. The Beltway is not approved for LLW shipments to the NTS. ANL instructed the carrier of the approved LLW shipping routes. The driver did not comply with ANL's instructions. RWAP issued a CAR for the incident. ANL will not use the carrier in the future for LLW/MLLW shipments to the NTS.

Planned Activities (January)

- Expect to receive approximately 140,000 ft³ of LLW and MLLW for disposal during the month. Of the 140,000 ft³ of LLW and MLLW expected 77,000 ft³ is ARRA funded.
- The LLW Sub-Project plans to conduct one RWAP Impromptu Surveillance, waste verification visit at Paducah, and one assist visit at Sandia National Laboratory.

Underground Test Area (UGTA)

Activities (December)

- Frenchman Flat
 - Continued FY 2010 work on the peer review process.
- Pahute Mesa
 - Completed Well Development Testing and Sampling activities at ER-20-8 #2
- Yucca Flat
 - Continued FY 2010 transport modeling and model documentation.
- Rainier Mesa/Shoshone Mountain
 - Continued FY 2010 flow and transport modeling efforts.

Planned Activities (January)

- Frenchman Flat
 - Continue model documentation and draft presentations for peer review.
- Pahute Mesa
 - Begin preparation of Environmental Baseline Survey well site ER-EC-15.
 - Begin construction of access road, drill pad and sumps for the ER-EC-12 well.
- Yucca Flat
 - Continue transport modeling and model documentation.
- Rainier Mesa/Shoshone Mountain
 - Continue flow and transport, modeling efforts.

Industrial Sites

Activities (December)

- Corrective Action Units (CAUs) 5, 107, 113, 115, 118, 127, 137, 139, 140, 143, 145, 151, 165, 168, 204, 254, 261, 262, 271, 309, 322, 333, 357, 370, 383, 476, 477, 478, 482, 504, 527, 528, 529, 542, 543, 545, 546, 551, 552, 554, and 559
 - Performed annual post-closure inspections
- CAUs 90, 91, 92, 110, and 112
 - Performed quarterly and biannual post-closure inspections
- CAU 113, Area 25 R-MAD Facility (American Recovery and Reinvestment Act (ARRA) funded)
 - Continued demolition activities
- CAU 117, Area 26 Pluto Disassembly Facility (ARRA funded)
 - Began preparing the facility for demolition activities
- CAU 408, Bomblet Target Area at the Tonopah Test Range (ARRA funded)
 - Performed field remediation activities
- CAU 560, Septic Systems
 - Performed field remediation activities
- CAU 562, Waste Systems
 - Continued Decision II sampling activities

Planned Activities (January)

- CAUs 90, 91, 92, 110, and 112
 - Submit Post-Closure Monitoring Report to Nevada Division of Environmental Protection (NDEP)
- CAU 113, Area 25 R-MAD Facility (ARRA funded)
 - Continue demolition activities
- CAU 114, Area 25 EMAD Facility
 - Begin site setup for field remediation activities
- CAU 117, Area 26 Pluto Disassembly Facility (ARRA funded)
 - Continue preparing the facility for demolition activities
- CAU 408, Bomblet Target Area at the Tonopah Test Range (ARRA funded)
 - Continue field remediation activities

Soils

Activities (December)

- CAU 367, Area 10 Sedan, Ess and Uncle Unit Craters (ARRA funded)
 - Submitted Final Corrective Action Investigation Plan (CAIP) to NDEP

- CAU 371, Johnnie Boy Crater and Pin Stripe
 - Conducted Corrective Action Alternative Meeting
- CAU 372, Area 20 Cabriolet/Palanquin Unit Craters
 - Continued field investigation activities
- CAU 374, Area 20 Schooner Unit Crater (ARRA funded)
 - Submitted Draft CAIP to NDEP for review
- CAU 375, Area 30 Buggy Unit Craters (ARRA funded)
 - Conducted Data Quality Objectives (DQO) Meeting

Planned Activities (January)

- CAU 106, Areas 5, 11 Frenchman Flat Atmospheric Sites (ARRA funded)
 - Conduct DQO Meeting
- CAU 367, Area 10 Sedan, Ess and Uncle Unit Craters (ARRA funded)
 - Continue preparing for field investigation
- CAU 372, Area 20 Cabriolet/Palanquin Unit Craters
 - Continue field investigation activities

Public Involvement

Activities (December)

- Environmental Management Public Involvement supported the Nevada Site Office (NSO) Waste Management Project at the Perma-Fix Low-Level and Mixed Waste Forum in Nashville December 7-9, 2009. During the three-day event, Public Involvement exhibited a display on the pending RCRA Part B Permit for the construction and operation of a new mixed waste disposal cell at the Area 5 Radioactive Waste Management Site.
- Support and attended the Community Advisory Board for Nevada Test Site Programs full board meeting.

Planned Activities (January)

- Environmental Management Public Involvement will exhibit Operation Clean Desert (OCD) at Bailey Middle School Science Night on Thursday, January 21, 2010. During this event, a copy of the OCD activity book and computer game will be distributed to each child in attendance. Each science and social studies teacher at the school will be provided the OCD science-based lesson plan or social studies objectives (as applicable), and worksheet with answer key for potential use in the classroom.
- Environmental Management Public Involvement will present a briefing on *Nevada Test Site Activities and Operation Clean Desert* at the Southern Nevada Math and Science Conference on January 23, 2010. Teachers in attendance will be provided a fact sheet booklet, regional and tour map of the Nevada Test Site, and OCD packet with brochure, activity book, computer game, science-based lesson plan, applicable social studies objectives, and worksheet.
- Environmental Management Public Involvement will participate in the bimonthly CHOLLA (Connecting Hands: Offering Lifelong Learning Adventures) meeting at the Wetlands Learning Lab on January 12, 2010.

Environmental Management's Monthly Report to the CAB February 2010

Low-Level Waste (LLW)

Activities (January)

- As of January 24, 2009, the cumulative LLW volume received for FY 2010 is 367,647 ft³ in 697 shipments. The cumulative mixed low-level waste (MLLW) volume received for FY 2010 is 15,652 ft³ in 27 shipments. LLW Operations has worked 19,122 hours since its last lost-time accident (September 2009).
- During the month, the LLW Sub-Project conducted one (1) Radioactive Waste Acceptance Program (RWAP) impromptu survey of Sandia National Laboratory in Albuquerque, NM and one (1) MLLW verification visit in Paducah, KY.
- On January 12, 2009, the Y-12 generator met with the Sub-Project to discuss its preliminary Corrective Action Plan (CAP) and root cause of the PCB contaminated waste stream it inadvertently sent to the Nevada Test Site (NTS) for disposal on December 21, 2009. The generator removed the container and shipped it to a treatment/disposal facility in Northern Utah. The Y-12's waste stream will remain suspended until it formally submits and completes its CAP. The CAP will also discuss how Y-12 will prevent reoccurrence of error.

Planned Activities (February)

- The LLW Sub-Project expects to receive approximately 135,000 ft³ of LLW and MLLW for disposal during the month.
- The LLW Sub-Project plans to conduct two (2) RWAP Impromptu Surveys and one (1) waste generator assist visit with EnergX in Oak Ridge, TN.

Underground Test Area (UGTA)

Activities (January)

- **Frenchman Flat**
 - DOE began reviewing Final Phase II Flow and Transport Model Report, Rev. 1.
 - Completed contracts for six Frenchman Flat peer review panelists and facilitator.
- **Pahute Mesa**
 - Continued work on Well Completion Reports for Wells ER-20-7, ER-20-8/ER-20-8#2, and ER-EC-11. There will be three separate reports; one for ER-20-7, one for ER-20-8/ER-20-8 #2 and one for ER-EC-11. The reports will be available to the CAB once the final report is approved and published. The expected dates are February for ER-20-7, March for ER-20-8/ER-20-8 #2 and April for ER-EC-11.
 - Completed well development, testing and sampling activities of the ER-20-8 #2 well and demobilized some support equipment.
 - Obtained as-built surveys of the ER-EC-11 wellhead.
- **Yucca Flat**
 - Nothing new to report.
- **Rainier Mesa/Shoshone Mountain**
 - Nothing new to report.

Planned Activities (February)

- **Frenchman Flat**
 - DOE will begin reviewing Model Document, Rev. 0.
 - Continue preparation of the Monitoring Network Plan. The Monitoring Network Plan describes the monitoring wells that will be installed to evaluate the model, monitor the contaminant migration, and verify compliance with the regulations, i.e., is the

compliance strategy working. This network will become part of the long-term monitoring after closure of the Corrective Action Unit.

- **Pahute Mesa**
 - Complete the Well Completion Report for Well ER-20-7
 - Complete access road, drill pad and sump construction at the ER-EC-12 site pending weather impacts.
 - Complete preparation of the well completion reports for ER-20-8, ER-20-8#2, and ER-EC-11.
 - Complete preparation of the well development and testing plan for Phase II wells.
- **Yucca Flat**
 - Continue transport model analysis and evaluation.
- **Rainier Mesa/Shoshone Mountain**
 - Continue flow model analysis and evaluation.

Industrial Sites

Activities (January)

- Corrective Action Units (CAUs) 90, 91, 92, 110, and 112 (Resource Conservation and Recovery Act [RCRA])
 - Submitted Final Post-Closure Monitoring Report to Nevada Division of Environmental Protection (NDEP)
- CAU 113, Area 25 Reactor Maintenance, Assembly, and Disassembly (R-MAD) Facility
 - Continued demolition activities (American Recovery and Reinvestment Act funded)
- CAU 114, Area 25 Engine Maintenance, Assembly, and Disassembly (EMAD) Facility
 - Began site setup for field remediation activities
- CAU 117, Area 26 Pluto Disassembly Facility
 - Continued preparing the facility for demolition activities (American Recovery and Reinvestment Act funded)
- CAU 408, Bomblet Target Area (Tonopah Test Range [TTR])
 - Continued field remediation activities (American Recovery and Reinvestment Act funded)
- CAU 560, Septic Systems
 - Continued field remediation activities
- CAU 562, Waste Systems
 - Conducted field sampling activities

Planned Activities (February)

- CAU 113, Area 25 R-MAD Facility
 - Continue demolition activities (American Recovery and Reinvestment Act funded)
- CAU 114, Area 25 EMAD Facility
 - Continue site setup for field remediation activities
- CAU 117, Area 26 Pluto Disassembly Facility
 - Continue preparing the facility for demolition activities (American Recovery and Reinvestment Act funded)
- CAU 408, Bomblet Target Area (TTR)
 - Submit Final Streamlined Approach for Environmental Restoration (SAFER) Plan to NDEP (American Recovery and Reinvestment Act funded)
 - Continue field remediation activities (American Recovery and Reinvestment Act funded)

- CAU 560, Septic Systems
 - Complete field remediation activities
- CAU 562, Waste Systems
 - Conduct additional field sampling activities

Soils:

Activities (January)

- Corrective Action Unit (CAU) 106, Areas 5, 11 Frenchman Flat Atmospheric Sites
 - Conducted Data Quality Objectives (DQO) Meeting (American Recovery and Reinvestment Act funded)
- CAU 367, Area 10 Sedan, Ess and Uncle Unit Craters
 - Received approval for Corrective Action Investigation Plan (CAIP) from Nevada Division of Environmental Protection (NDEP) (American Recovery and Reinvestment Act funded)
 - Continued preparing for field investigation (American Recovery and Reinvestment Act funded)
- CAU 372, Area 20 Cabriolet/Palanquin Unit Craters
 - Continued field investigation activities

Planned Activities (February)

- CAU 372, Area 20 Cabriolet/Palanquin Unit Craters
 - Continue field investigation activities
- CAU 374, Area 20 Schooner Unit Crater
 - Submit Final CAIP to NDEP (American Recovery and Reinvestment Act funded)

Public Involvement

Activities (January)

- Ten (10) Operation Clean Desert teacher packets (science-based lesson plan with worksheet, potentially-applicable social studies standards, activity book, computer game, and brochures on Operation Clean Desert and Public Involvement) were provided to teachers at Sandy Miller Elementary School in Las Vegas on January 8, 2010.
- Environmental Management Public Involvement participated in the bimonthly CHOLLA (Connecting Hands: Offering Lifelong Learning Adventures) meeting at the Wetlands Learning Lab on January 12, 2010.
- The Operation Clean Desert science-based lesson plan with worksheet was provided to a teacher at Western High School in Las Vegas on January 13, 2010.
- Environmental Management exhibited the Operation Clean Desert Kids Display, and the Waste Management Timeline and Groundwater posters during Bailey Middle School Science Night on Thursday, January 21, 2010. Approximately 40 people (students and family members) attended the event during which 28 copies of the activity book and 26 copies of the computer game were distributed.
- Environmental Management Public Involvement presented a briefing on *Nevada Test Site Activities and Operation Clean Desert* at the Southern Nevada Math and Science Conference on January 23, 2010. Three (3) teachers attended and were provided a fact sheet booklet, regional and tour maps of the Nevada Test Site, Operation Clean Desert teacher packets, and historic Nevada Test Site facts sheets on *Plowshare* and the *Nuclear Rocket Development Station*.

- 100 Operation Clean Desert teacher packets were provided (via CHOLLA) to Bailey Elementary School in Las Vegas. These packets were provided for use during Science Day on January 28, 2010.
- Two (2) copies of the Operation Clean Desert computer game were mailed to Jefferson Middle School in Oak Ridge, Tennessee on January 28, 2010.

Planned Activities (February)

- Representatives of the Nevada Site Office will present a briefing to second grade students at Sandy Miller Elementary School in Las Vegas on Thursday, February 11, 2010. The focus of the briefing is non-radioactive solid waste management practices (including reducing, reusing, and recycling) and the different phases of matter.
- Environmental Management Public Involvement will present a briefing on *Nevada Test Site Activities and Operation Clean Desert* at the Clark County School District Winter New Teacher Conference on February 27, 2010. Teachers in attendance will be provided a fact sheet booklet, regional and tour maps of the Nevada Test Site, Operation Clean Desert teacher packets, and historic Nevada Test Site facts sheets on *Plowshare* and the *Nuclear Rocket Development Station*.

Environmental Management's Monthly Report to the CAB March 2010

Low-Level Waste (LLW)

Activities (February)

- As of February 21, 2009, the cumulative LLW volume received for FY 2010 is 434,558 ft³ in 864 shipments. The cumulative mixed low-level waste (MLLW) volume received for FY 2010 is 26,814 ft³ in 38 shipments. LLW Operations has worked 24,340 hours since its last lost-time accident (September 23, 2009).
- The LLW Sub-Project conducted two (2) Radioactive Waste Acceptance Program (RWAP) Impromptu Surveys at Brookhaven National Laboratory (NY) and Y-12 Site Office (TN), and one (1) assist visit with EnergX (TN).
- The Sub-Project finalized its quarterly LLW Forecast Update which indicated that generators are planning to ship approximately 2,238,000 cubic feet of LLW and MLLW to the NTS from February through September 2010.

Planned Activities (March)

- The LLW Sub-Project expects to receive approximately 135,000 ft³ of LLW and MLLW for disposal during the month.
- The LLW Sub-Project plans to conduct three (3) RWAP Impromptu Surveys and two (2) waste verification visits at PermaFix (TN and WA).

Underground Test Area (UGTA)

Activities (February)

Frenchman Flat

- The Phase II Documentation Overview of Corrective Action Unit 98: Frenchman Flat, Rev. 0 was submitted to NSO and NDEP for review and comment.
- Continue Monitoring Network Plan for input into the CADD/CAP

Pahute Mesa

- Continuing work on ER-20-7 Well Completion Report
- Continuing access road, drill pad and sump construction at ER-EC-12
- Continue preparing ER-20-8, ER-20-8#2 and ER-EC-11 Well completion Reports
- Continue preparing Well Development and Testing Plan for Phase II wells.

Yucca Flat

- Continue Transport Model and Analysis

Rainier Mesa/Shoshone Mountain

- Continue Flow Model Analysis and Evaluation

Planned Activities (March)

Frenchman Flat

- Continue preparation of the Monitoring Network Plan.
- Conduct dry run of peer review briefings.
- Incorporate NDEP review comments into Phase II Documentation Overview of Corrective Action Unit 98: Frenchman Flat, Rev. 0
- Finalize summary documentation and draft presentations for peer review.

Pahute Mesa

- Complete preparation of the well completion reports for Wells ER-20-7, ER-20-8, ER-20-8#2, and ER-EC-11.
- Begin and complete Well Development and Testing of Well ER-EC-11.

- Begin Well Development and Testing of Well ER-20-7.
- Continue support of hydrogeology analysis and evaluation.
- Complete construction of access road, drill pad and sumps at the ER-EC-12 site.
- Install conductor casing at the ER-EC-12 site.
- Begin construction of the access road drill pad and sumps at the ER-EC-13 site.
- Complete preparation of the well development and testing plan for Phase II wells.

Yucca Flat

- Continue transport model analysis and evaluation.

Rainier Mesa/Shoshone Mountain

- Continue transport model analysis and evaluation.

Industrial Sites

Activities (February)

- Corrective Action Unit (CAU) 113, Area 25 Reactor Maintenance, Assembly, and Disassembly (R-MAD) Facility
 - Continued demolition activities including explosive demolition of the water tower and emissions stack. (American Reinvestment and Recovery Act funded)
- CAU 114, Area 25 Engine Maintenance, Assembly, and Disassembly (EMAD) Facility
 - Continued site setup for field remediation activities and determined possible paths forward for electrical condition of the facility
- CAU 117, Area 26 Pluto Disassembly Facility
 - Characterized the facility for asbestos and performed explosive demolition of the water tower (American Reinvestment and Recovery Act funded)
- CAU 408, Bomblet Target Area (Tonopah Test Range [TTR])
 - Continued field remediation activities (American Reinvestment and Recovery Act funded)
 - Completed initial destruction (demilitarization) of munitions and explosives of concern (MEC) (American Reinvestment and Recovery Act funded)
- CAU 560, Septic Systems
 - Continued field remediation activities
- CAU 562, Waste Systems
 - Collected Decision II samples at Corrective Action Site (CAS) 02-69-01, CAS 02-60-04, and CAS 25-60-04
- CAU 563, Septic Systems
 - Submitted Final Closure Report (CR) to Nevada Division of Environmental Protection (NDEP)

Planned Activities (March)

- CAU 113, Area 25 R-MAD Facility
 - Continue demolition activities including explosive demolition of the high bay (American Reinvestment and Recovery Act funded)
- CAU 114, Area 25 EMAD Facility
 - Submit Streamlined Approach for Environmental Restoration (SAFER) Plan Addendum to NDEP
 - Continue site setup for field remediation activities
- CAU 117, Area 26 Pluto Disassembly Facility
 - Continue preparing the facility for demolition activities (American Reinvestment and Recovery Act funded)

- CAU 408, Bomblet Target Area (TTR)
 - Continue field remediation activities (American Reinvestment and Recovery Act funded)
 - Submit Final SAFER Plan Rev. 1 to NDEP (American Reinvestment and Recovery Act funded)
- CAU 544, Cellars, Mud Pits, and Oil Spills
 - Conduct pre-Data Quality Objectives (DQO) and DQO meetings
- CAU 560, Septic Systems
 - Complete field remediation activities
- CAU 563, Septic Systems
 - Receive approval from NDEP for Final CR

Soils

Activities (February)

- Corrective Action Unit (CAU) 372, Area 20 Cabriole/Palanquin Unit Craters
 - Continued field investigation activities
- CAU 374, Area 20 Schooner Unit Crater
 - Submitted Final Corrective Action Investigation Plan (CAIP) to NDEP (American Reinvestment and Recovery Act funded)

Planned Activities(March)

- CAU 367, Area 10 Sedan, Ess and Uncle Unit Craters
 - Begin field investigation activities (American Reinvestment and Recovery Act funded)
- CAU 372, Area 20 Cabriole/Palanquin Unit Craters
 - Continue field investigation activities
- CAU 375, Area 30 Buggy Unit Craters
 - Submit Final CAIP to NDEP (American Reinvestment and Recovery Act funded)

Public Involvement

Activities (February)

- Nevada Site Office staff participated in Community Advisory Board for Nevada Test Site Programs meetings.
- Two (2) copies each of the Operation Clean Desert activity book and computer game were mailed to Russia on February 5, 2010 in response to a request.
- Representatives of the Nevada Site Office exhibited a pollution prevention display for seven (7) second grade classes at Sandy Miller Elementary School in Las Vegas on Thursday, February 11, 2010. *Reduce, Reuse, Recycle* activity books and bookmarks, and recycled money pencils were distributed to the approximately 130 students in attendance.
- Environmental Management Public Involvement presented a briefing on *Nevada Test Site Activities and Operation Clean Desert* at the Clark County School District Winter New Teacher Conference on February 27, 2010. The 17 teachers in attendance were provided a fact sheet booklet, regional and tour maps of the Nevada Test Site, Operation Clean Desert teacher packets, and historic Nevada Test Site facts sheets on *Plowshare* and the *Nuclear Rocket Development Station*.

Planned Activities (March)

- Nevada Site Office staff will participate in Community Advisory Board for Nevada Test Site Programs meetings.

DOE Nevada Site Office Environmental Management - FY 2011 Presidential Budget & Baseline Sub-Project Key Tasks

EM Sub-Project	FY 2011 Baseline Tasks	FY 2011 Baseline Funding	FY 2011 Presidential Budget \$ Totals by Sub-Project (thousand)
Industrial Sites	Complete closure of Corrective Action Unit (CAU) 116, Area 25 Test Cell C Facility		
	Complete closure of Corrective Action Unit (CAU) 547, Miscellaneous Contaminated Waste Sites		
	Continue decontamination and deactivation activities at Corrective Action Unit (CAU) 114, Area 25 EMAD Facility		
	Total		\$12,491
<hr/>			
Soils	Complete the Corrective Action Unit (CAU) 366, Area 11 Plutonium Valley Unit Safety Shots, Corrective Action Investigation Plan		
	Complete the Corrective Action Unit (CAU) 365, Baneberry Contamination Area, Corrective Action Investigation Plan		
	Complete the Corrective Action Unit (CAU) 372, Area 20 Cabriolet/Palanquin Unit Craters, Corrective Action Decision Document		
	Total		\$3,966
<hr/>			
Underground Test Area (UGTA)	Frenchman Flat		
	Complete the Frenchman Flat Phase II Corrective Action Decision Document and Corrective Action Plan		
	Central and Western Pahute Mesa		
	Drill two data acquisition wells		

DOE Nevada Site Office Environmental Management - FY 2011 Presidential Budget & Baseline Sub-Project Key Tasks

EM Sub-Project	FY 2011 Baseline Tasks	FY 2011 Baseline Funding	FY 2011 Presidential Budget \$ Totals by Sub-Project (thousand)
	Complete two Pahute Mesa Phase II well development testing and sampling operations, and complete three well analyses		
	Yucca Flat Continue Yucca Flat Phase I contaminant boundary flow and transport model activities		
	Rainier Mesa/Shoshone Mountain Complete Rainier Mesa Phase I source term report		
	Complete Rainier Mesa Phase I contaminant boundary flow and transport model analysis and evaluation		
	Total	\$29,440	\$29,440
<hr/>			
Low-Level Waste & Mixed Low-Level Waste	Safely dispose approximately 51,000 cubic meters of low-level waste (LLW) and approximately 1,500 cubic meters of mixed low-level waste (MLLW) from approximately 20 generators		
	Continue audits and waste certification reviews in support of generator programs to ensure compliance with Nevada Test Site Waste Acceptance Criteria		
	Continue developing and maintaining plans, permits, safety basis, and technical and regulatory support for activities such as the Resource Conservation and Recovery Act Part B Permit, Mutual Consent Agreement, Site Treatment Plan, and Consent Orders		
	Total	\$23,291	\$9,598
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DOE Nevada Site Office Environmental Management - FY 2011 Presidential Budget & Baseline Sub-Project Key Tasks

EM Sub-Project	FY 2011 Baseline Tasks	FY 2011 Baseline Funding	FY 2011 Presidential Budget \$ Totals by Sub-Project (thousand)
Program Integration	Ongoing program planning, budgeting, project control, quality assurance, safety, regulatory support, contracts, administration, database management, and public involvement support for all EM sub-projects	\$11,943	\$11,948
Principle (AIP)	Ongoing Program Integration support	\$2,562	\$2,562
TOTAL		\$83,693	\$66,000

Public Notification of Corrective Actions

**January 6, 2010
Las Vegas, Nevada**

The Department of Energy (DOE) will not be submitting any Corrective Action Unit (CAU) final Corrective Action Decision Documents (CADDs), CADD/Corrective Action Plans (CAPs), CADD/Closure Reports (CRs), or Streamlined Approach for Environmental Restoration (SAFER) Work Plans, proposing closure-in-place to the Nevada Division of Environmental Protection (NDEP), during the next 60 days.

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The following is a list of all documents submitted to the Public Reading Facilities during December 2009. Attached is the Introduction from the document listed below.

CAU Number	CAU Description	Document
101	Central Pahute Mesa	Phase II Corrective Action Investigation Plan
102	Western Pahute Mesa	

1.0 Introduction

Pahute Mesa, extending over Nevada Test Site (NTS) Areas 19 and 20 (Figure 1-1), was one of several areas used for underground nuclear testing. The Phase I corrective action investigation (CAI), hereafter referred to as the Phase I CAI, was directed by the *Corrective Action Investigation Plan (CAIP) for Corrective Action Units 101 and 102: Central and Western Pahute Mesa, Nevada Test Site, Nevada* (DOE/NV, 1999), hereafter referred to as the Pahute Mesa CAIP. Phase I modeling results are presented in the *Phase I Transport Model of Corrective Action Units 101 and 102: Central and Western Pahute Mesa, Nevada Test Site, Nye County, Nevada* (SNJV, 2009), and supported by the *Groundwater Flow Model of Corrective Action Units 101 and 102: Central and Western Pahute Mesa, Nevada Test Site, Nye County, Nevada* and the *Addendum to the Groundwater Flow Model of Corrective Action Units 101 and 102: Central and Western Pahute Mesa, Nevada Test Site, Nye County, Nevada* (SNJV, 2006 and 2007). The Phase I transport model predicted potential migration of radionuclides (RNs) exceeding the *Safe Drinking Water Act (SDWA)* standard (CFR, 2009d) off Pahute Mesa within a 1,000-year time frame. This document summarizes the Phase I CAI and Phase I modeling results. This Phase II CAIP is an updating addendum to the Pahute Mesa CAIP (DOE/NV, 1999).

The Phase I modeling objective was to use flow and transport models to evaluate RN migration from underground nuclear tests at Pahute Mesa and generate forecasts of contaminant boundaries for the corrective action units (CAUs). A preemptive review subcommittee appointed by the Underground Test Area (UGTA) Technical Working Group (TWG) evaluated the Phase I model results and recommended modifying the Phase I objectives. The recommendation was made because the models had incompletely constrained parameter values and the TWG recognized that the contaminant boundary forecasts could be overly conservative and/or unrealistic. The U.S. Department of Energy (DOE), National Nuclear Security Administration Nevada Site Office (NNSA/NSO) and the Nevada Division of Environmental Protection (NDEP) agreed with the subcommittee recommendation and decided to change the objectives of the Phase I studies and initiate Phase II studies. The Phase I studies were refocused on model and parameter sensitivity and uncertainty analysis, and the identification of data needed to improve the Phase II model. The objective of the Phase II studies is to

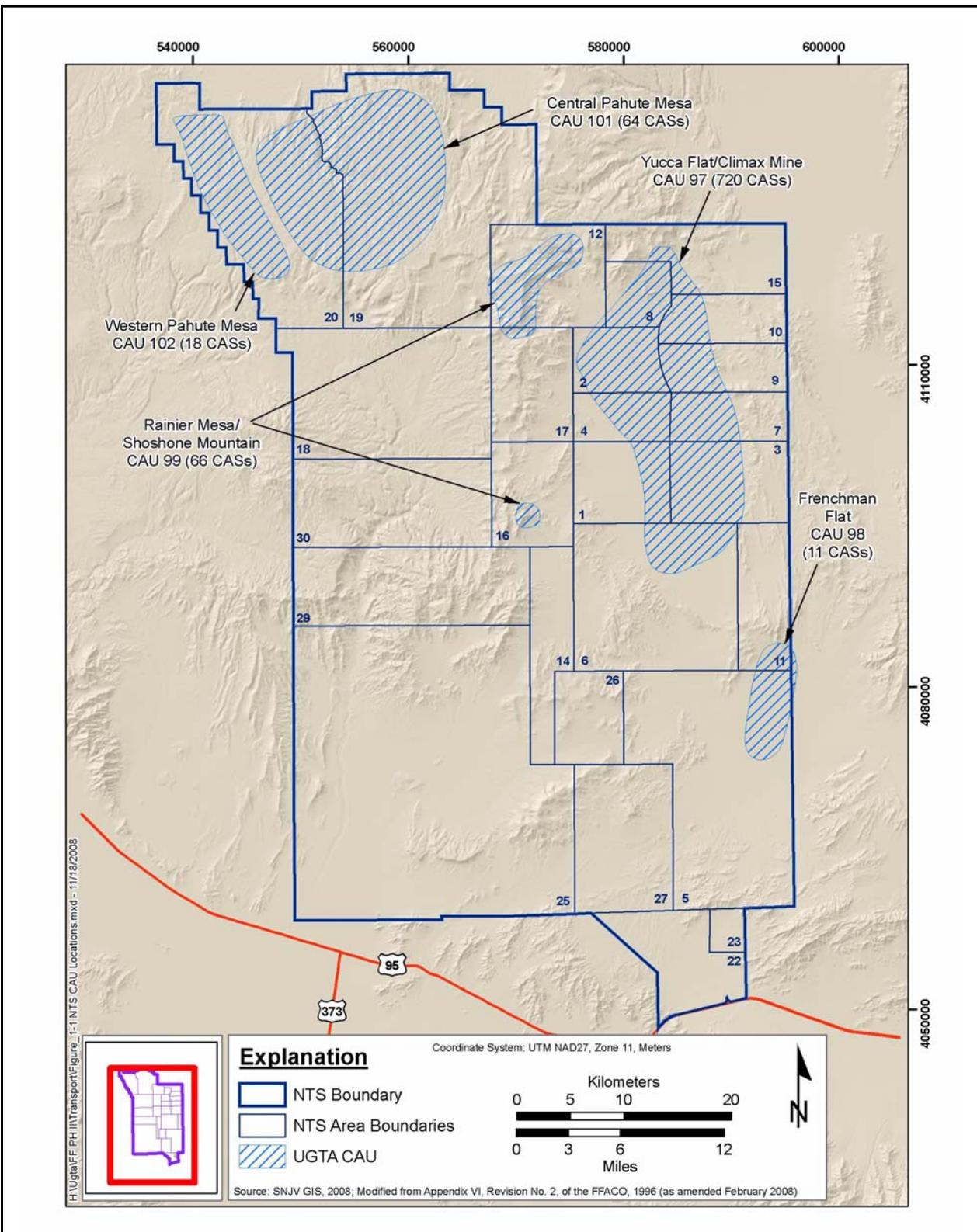


Figure 1-1
Location of the NTS Corrective Action Units

improve confidence in the reliability of model forecasts of contaminant boundaries, an important step in the successful implementation of the UGTA strategy.

The UGTA Project TWG Pahute Mesa Phase II CAIP *ad hoc* Subcommittee (hereafter referred to as the *ad hoc* Subcommittee) was formed to review the Phase I state of knowledge, flow and transport models sensitivity, uncertainty, and model results. They identified data needs, prioritized new data collection, and proposed further work to support Phase II modeling. Additional work includes new data collection, data analysis, and modeling activities for Central and Western Pahute Mesa CAUs 101 and 102. Work will be performed progressively, with iterative evaluation of new data and changes in uncertainty. Adequacy of Phase II work to define contaminant boundaries will be determined by mutual agreement of NNSA/NSO and NDEP, consistent with the revised UGTA strategy in Section 3.0 of Appendix VI of the *Federal Facility Agreement and Consent Order* (FFACO) (1996, as amended February 2008). The following subsections summarize the Phase I CAI results, FFACO Appendix VI changes affecting Phase II, and planned Phase II CAIP work. The organization and content of this document are outlined at the end of the section.

1.1 Purpose

This Phase II CAIP describes new work needed to potentially reduce uncertainty and achieve increased confidence in modeling results. This work includes data collection and data analysis to refine model assumptions, improve conceptual models of flow and transport in a complex hydrogeologic setting, and reduce parametric and structural uncertainty. The work was prioritized based on the potential to reduce model uncertainty and achieve an acceptable level of confidence in the model predictions for flow and transport, leading to model acceptance by NDEP and completion of the Phase II CAI stage of the UGTA strategy.

1.2 Scope

The Phase I CAI has been completed as specified by the requirements of the FFACO (1996, as amended February 2008). Because the CAI will go to Phase II, the contaminant boundaries have not been formally defined, and the adequacy of the model and data results have not been evaluated by NDEP and NNSA/NSO (see FFACO Appendix VI, Section 3.0).

Public Notification of Corrective Actions

February 3, 2010

Las Vegas, Nevada

The Department of Energy (DOE) will not be submitting any Corrective Action Unit (CAU) final Corrective Action Decision Documents (CADDs), CADD/Corrective Action Plans (CAPs), CADD/Closure Reports (CRs), or Streamlined Approach for Environmental Restoration (SAFER) Work Plans, proposing closure-in-place to the Nevada Division of Environmental Protection (NDEP), during the next 60 days.

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The following is a list of all documents submitted to the Public Reading Facilities during January 2010. Attached is the Executive Summary from the document listed below.

CAU Number	CAU Description	Document
367	Sedan, Ess and Uncle Unit Craters	Corrective Action Investigation Plan

Executive Summary for CAU 367 Corrective Action Investigation Plan

Corrective Action Unit 367 is located in Area 10 of the Nevada Test Site, which is approximately 65 miles northwest of Las Vegas, Nevada. Corrective Action Unit 367 comprises the four corrective action sites (CASs) listed below:

- 10-45-01, U-10h Crater (Sedan)
- 10-45-02, Ess Crater Site
- 10-09-03, Mud Pit
- 10-45-03, Uncle Crater Site

The CAS 10-09-03, Mud Pit, is located at the bottom of the CAS 10-45-02 crater and is addressed in this document in association with CAS 10-45-02. These sites are being investigated because existing information on the nature and extent of potential contamination is insufficient to evaluate and recommend corrective action alternatives. Therefore, additional information will be obtained by conducting a corrective action investigation. The results of the field investigation will support a defensible evaluation of viable corrective action alternatives that will be presented in the Corrective Action Decision Document.

The sites will be investigated based on the data quality objectives (DQOs) developed on September 30, 2009, by representatives of the Nevada Division of Environmental Protection and the U.S. Department of Energy (DOE), National Nuclear Security Administration Nevada Site Office. The DQO process was used to identify and define the type, amount, and quality of data needed to develop and evaluate appropriate corrective actions for CAU 367.

Based on process knowledge of the releases associated with the nuclear tests and radiological survey information about the location and shape of the resulting contamination plume, it was determined that the releases from the nuclear tests are co-located and will be investigated as one release site. The DQO process also resulted in an assumption that total effective dose (TED) within the areas of the craters, crater rims, and related mounding around the craters exceeds the final action level (FAL) and requires corrective action. A field investigation will be performed to define a single area where TED exceeds the FAL and to determine whether other contaminants of concern (COCs) are present at the site (such as in the mud pit associated with CAS 10-09-03, or associated with stains or waste discovered during the investigation).

Appendix A provides a detailed discussion of the DQO methodology and the DQOs specific to each CAS.

The scope of the corrective action investigation for CAU 367 includes the following activities:

- Move surface debris and/or materials, as needed, to facilitate sampling.
- Conduct radiological surveys.
- Collect and submit environmental samples for laboratory analysis to determine the area where TED at the site exceeds FALs (i.e., corrective action boundary).
- Evaluate TED to potential receptors in areas along Mercury Highway that have been impacted by a release of radionuclides from the Sedan test.
- Collect and submit environmental samples for laboratory analysis related to the drilling mud within CAS 10-09-03, Mud Pit, and any encountered stains or waste as necessary to determine whether COCs are present.
- If COCs are present, collect additional step-out samples to define the extent of the contamination.
- Collect samples of investigation-derived waste, as needed, for waste management purposes.

Total effective dose will be calculated as the sum of external dose and internal dose measured at each 100-square-meter sampling plot. External dose will be measured using thermoluminescence dosimeters (or equivalent method), and internal dose will be calculated by the Residual Radioactive computer code using analytical results of radionuclide activities from soil samples. This Corrective Action Investigation Plan has been developed in accordance with the Federal Facility Agreement and Consent Order that was agreed to by the State of Nevada; DOE, Environmental Management; U.S. Department of Defense; and DOE, Legacy Management. Under the Federal Facility Agreement and Consent Order, this Corrective Action Investigation Plan will be submitted to the Nevada Division of Environmental Protection for approval. Fieldwork will be conducted following approval of the plan.

Public Notification of Corrective Actions

March 3, 2010

Las Vegas, Nevada

The Department of Energy (DOE) will not be submitting any Corrective Action Unit (CAU) final Corrective Action Decision Documents (CADDs), CADD/Corrective Action Plans (CAPs), CADD/Closure Reports (CRs), or Streamlined Approach for Environmental Restoration (SAFER) Work Plans, proposing closure-in-place to the Nevada Division of Environmental Protection (NDEP), during the next 60 days.

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No documents were submitted to the Public Reading Facilities during February 2009.