



# Community Advisory Board for Nevada Test Site Programs

November 7, 2006

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**SUBJECT:** Environmental Management Public Information Review Effort  
Committee (EMPIRE )

Following is a compilation of our recommendations for four fact sheets given to our committee for review.

First, the EMPIRE Committee has some general suggestions for all of the fact sheets. I will list those general suggestions and then go into specific recommendations for each of the fact sheets.

1. Define unfamiliar terms and acronyms before they are used in a sentence.
2. Bold the definitions so that they are easily referenced.
3. When doing several definitions together, bullet the definitions, rather than listing them in the sentence.
4. Include a key and/or glossary on each fact sheet for unfamiliar terms and acronyms.
5. Reference on each fact sheet that other fact sheets are available.
6. In general, increase font point size for easier reading.
7. Try to keep fact sheets at an eighth grade reading level.
8. Update all references to off-site locations to comply with current transition status.
9. Distribute fact sheets to libraries, city halls, Nuclear Testing Archive, Legislator offices, environmental groups, UNLV and senior centers.

Now, for specific suggestions on each fact sheet.

#### Waste Management — Page 1

1. Paragraph 1 – Line 3  
When **two** designated national disposal facilities are mentioned, name **both** of them.
2. Paragraph 2 – Line 4  
After the words: disposal cells, insert: for low-level and mixed low-level waste.

After the words: temporary storage areas, insert: for transuranic and hazardous waste.

3. Paragraph 3 – Line 1  
After the words: Much of the radioactive waste, insert: permanently
4. Paragraph 5 – Line 1  
After the word: generators, insert: of waste

#### Page 2

1. Paragraph 2 – Line 1  
After the word: generators, insert: of waste
2. Paragraph 2 – Line 3  
After the word: generators, insert: of waste
3. Paragraph 4 – Line 4  
Insert this sentence after Line 4: this represents the majority of transuranic waste stored at the Nevada Test Site.
4. Paragraph 4 – End of Paragraph  
Insert this sentence at the end of the paragraph: This project is scheduled to close at the end of fiscal year 2007.
5. Insert a caption to go with the photograph on page 2.

#### Environmental Restoration – Page 1

1. Column 1 – Paragraph 3 – Line 8  
After the words: five states, insert: (see list on page 3)

#### Page 2

1. Column 1 – Paragraph 1 – End of Paragraph  
Delete the last word: activities, and insert: through attending CAB meetings and other avenues.
2. Column 2 – Paragraph 1 – Last bulleted item  
Delete the words: closure requirements, and insert: appropriate state and Federal closure requirements.
3. Column 2 – Paragraph 3  
Break out the four related projects into a bulleted list.

#### Page 3

1. Column 1 – Paragraph 3  
Remove this paragraph with reference to Offsite Projects because they are no longer active.
2. Column 2 – Paragraph 1  
Check the next to last paragraph for accuracy in reference to contamination by uranium and/or plutonium oxides.

#### Page 4

1. Paragraph 1 – Bullet 3  
Define what a stakeholder is and explain how they can get placed on the mailing list.

Kelly Snyder  
Page 3  
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Planning and Budgeting – Page 1

1. Paragraph 1 – Line 6  
Delete the words: of when it will actually be used.

Page 2

1. Include a caption with the picture and perhaps switch to a photo with more relevance.

Regulatory Requirements

The EMPIRE Committee actually went into more depth on this fact sheet. We rewrote and reorganized it to aid in comprehension and readability. We also incorporated some of the suggestions we had for all the fact sheets (a glossary, bulleted lists, definitions, etc.).

Attached is a copy of the revision.

Thank you for the opportunity to review these fact sheets.

Sincerely,

A handwritten signature in black ink, appearing to read "Jan Spinato", with a stylized flourish at the end.

Jan Spinato, Chairwoman  
EMPIRE Committee

# Regulatory Requirements .... and Agreements

## Overview

The U.S. Department of Energy (DOE) is required to comply with all applicable Federal, State, Local and Tribal regulations governing impacts to the environment from on-going and historic operations. In order to ensure consistent and complete compliance with various State and Federal Regulations, the DOE writes its own Orders detailing the requirements that Contractor and Federal Employees must meet to assure compliance.

The DOE's Environmental Management Program was established in 1989 to address the environmental liabilities of fifty years of nuclear weapons production and testing in the United States. The DOE Environmental Management Program must characterize and safely remediate (clean up) inactive contaminated sites. In conducting this work, DOE must minimize, handle, treat, store, transport, and dispose of DOE wastes in a safe and environmentally responsible manner. DOE must also ensure that risks to human health and safety and the environment, posed by on-going activities at DOE facilities, are eliminated or reduced to publicly acceptable levels.

The Environmental Management (EM) Program in the DOE Nevada Site Office (NSO) is responsible for environmental restoration and waste management activities at: the Nevada Test Site (NTS); facilities in North Las Vegas and on the Nellis Air Force Range; and the Tonopah Test Range. Current NSO/EM activities include: remediation of contaminated areas on the NTS and associated off-site locations; implementing methods to safely accept and dispose of low-level radioactive waste; disposing of legacy transuranic waste and mixed waste and closing on-site disposal areas in compliance with regulatory requirements. As mentioned above, there are many different types of waste for which the NSO is responsible. Each is governed by specific regulations, agreements and consent orders depending, in part, on their content.

Low Level Radioactive Waste, for instance, contains a small amount of radioactivity but no hazardous chemical components.

Hazardous waste is nonradioactive but contains toxic, corrosive, reactive, or flammable substances.

Transuranic waste contains man-made radioactive elements heavier than Uranium: hence the name "trans" or "beyond" Uranium.

Mixed waste contains both radioactive and hazardous components. Such waste can be either low level mixed waste, or transuranic mixed waste.

All of the activities mentioned above must comply with a wide variety of laws, regulations, agreements, and consent orders agreed to by the DOE and the State of Nevada Department of Environmental Protection (NDEP). These regulatory requirements are discussed below.

The primary regulatory drivers governing on-going operations and environmental restoration activities are:

- *National Environmental Policy Act (NEPA)*
- *Resource Conservation and Recovery Act (RCRA)*
- *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)*

The purpose of each of these three acts is described below and the relationships between these laws are shown in Figure 1.

#### **National Environmental Policy Act (NEPA)**

NEPA, enacted in 1969, requires that federal agencies perform environmental impact analyses before beginning new programs or constructing new facilities. These analyses must identify potential negative impacts to the environment and consider alternative actions to minimize such negative impacts. This law applies to any activity that is funded or approved by a federal agency or is sited on Federally owned land.

The depth of analysis and level of documentation required under NEPA is dependent upon the potential for significant environmental impacts resulting from a proposed action. For projects that may significantly impact the environment, an environmental impact statement (EIS) may be required. This statement must describe potential impacts to the environment and discuss, in detail, possible alternatives. The EIS process provides for significant public involvement including a process known as 'scoping'. During this process the general public, other Federal and State agencies, as well as Native American tribes are asked to give their comments and help define the issues that should be discussed in the EIS. When the agency (in this case the DOE) releases the draft EIS, public hearings are held to solicit input. Since 1969 all Federal agencies have been required to comply with NEPA. In August of 1996, the NSO published the Final EIS for the NTS and other Off-Site Locations in the State of Nevada (DOE/EIS 0243).

Note that if the initial environmental impact assessment demonstrates that potential impacts would be insignificant, the agency may prepare a "Finding of No Significant Impact" (FONSI) and proceed to implement the project.

**Resource Conservation and Recovery Act (RCRA) of 1976, as Amended**  
Enacted in 1976 as an amendment to the Solid Waste Disposal Act of 1965, RCRA is the federal law that provides "cradle to grave" management of solid wastes in a manner that protects human health and the environment. It provides criteria for regulating and managing hazardous wastes, non-hazardous solid wastes, and underground storage tanks. RCRA promotes the use of recycled and recovered materials, environmentally sound disposal methods, and the

reuse of recoverable resources. It also encourages waste reduction and fosters resource conservation.

In May 1995, in accordance with RCRA, the Nevada Division of Environmental Protection (NDEP) issued a RCRA Part B Permit to the Nevada Site Office to address the management of some of its hazardous waste materials. This permit authorizes DOE/NV to operate a nonradioactive Hazardous Waste Storage Unit and an Explosive Ordnance Disposal Unit at the NTS. The permit also requires the Nevada Site Office to take corrective actions to protect human health and the environment from all releases of hazardous waste or its RCRA-regulated constituents. In addition, the permit identified nine historical NTS offsite locations for which the Nevada Site Office had to develop and specify corrective action requirements (as of October 1, 2006 these nine sites have been reassigned to other DOE offices). These requirements are defined in, and governed by, the Federal Facility Agreement and Consent Order (FFACO, see below).

### **Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980**

The CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986, authorizes cleanup responses when there is a release, or threat, of a release of a hazardous substance into the environment. The CERCLA has three primary missions:

- Identify sites where releases of hazardous substances have occurred or might occur and pose a serious threat to human health, welfare, or the environment.
- Take appropriate action to remediate (cleanup) those releases.
- Ensure that responsible parties pay for the cleanup activities.

Although CERCLA was designed to impose cleanup and reporting requirements on the private sector, it also applies to DOE and its facilities. It is important to note that unlike other environmental laws, CERCLA is a response and reporting act, which governs the cleanup of sites contaminated by activities in the past.

### **Specific Agreements between DOE and the State of Nevada**

The history of the development of legal agreements executed between the DOE/NV and the NDEP for implementation of the process-specific requirements defined in the Federal laws, at DOE sites and facilities within the State of Nevada is described below.

These agreements are:

- Settlement Agreement (1992)
- Agreement in Principle (1993)
- Mutual Consent Agreement (1994)
- Federal Facility Agreement and Consent Order (FFACO) (1996)
- Federal Facility Compliance Act-Consent Order (FFCAct-CO) (1996)

### **Settlement Agreement (1992)**

The Settlement Agreement, signed by the NSO and NDEP in June 1992, authorizes the NSO to temporarily store its (then current) inventory of mixed transuranic waste, including both radioactive and RCRA-defined hazardous components, in the transuranic waste building. The storage of additional waste requires the NSO to obtain an addendum to this permit. Mixed transuranic waste is not normally generated at the NTS; the majority of mixed transuranic waste stored at the NTS was produced at other sites. This is the “legacy waste” referred to on page 1. By September 30, 2006 all of this waste will have been shipped to the Waste Isolation Pilot Plant (WIPP) in New Mexico for permanent disposal.

The Federal Facility Compliance Act (FFCAct) of 1992 requires the Secretary of Energy to identify existing quantities of mixed waste, develop Site Treatment Plans, and create technologies for treating and storing mixed waste. Site Treatment Plans identifying specific processes for handling and storing mixed waste treatment must be written for each facility at which DOE stores or generates these wastes, including the NTS. Under this Act, these plans must be submitted to the NDEP for review and approval.

#### **Agreement in Principle (1993)**

In June 1993, the NSO and the State of Nevada negotiated the “Agreement in Principle”. This Agreement reflects the understanding and commitments between DOE and the State of Nevada regarding the DOE NSO provision of technical and financial support to the State for environmental, safety, and health oversight, as well as associated monitoring activities of NSO operations located in Nevada. The NSO also commits to assist in emergency management initiatives designed to protect the health and safety of Nevada Test Site personnel, as well as citizens throughout Nevada.

Additionally, the NSO-State of Nevada Joint Low-Level Waste Oversight Agreement was incorporated as an appendix to the 1993 Agreement in Principle. This appendix is a cooperative oversight arrangement between the NSO and the State of Nevada which grants the State an increased role in monitoring the management of low-level wastes generated at the NTS as well as those generated by other DOE facilities and disposed at the NTS. By entering into the agreement, the NSO and the State agree to share all pertinent information concerning waste types and quantities necessary to facilitate the State’s conduct of detailed oversight of waste disposal operations. As part of the agreement, the State can conduct prompt reviews of operating documents and site management procedures.

#### **Mutual Consent Agreement (1994)**

The Mutual Consent Agreement was signed by the Nevada Site Office (NSO) and NDEP in January 1994 and modified in June 1995 and 1998. This agreement covers the treatment and storage of three different types of waste.

- Mixed low level waste is waste containing low levels of radioactive material as well as hazardous materials, but NO transuranic elements.
- Mixed Transuranic waste is mixed waste containing transuranic elements and hazardous materials.
- Transuranic waste does not contain hazardous materials.

The treatment and disposal of any mixed low-level waste identified or generated after March 1996, requires that the NSO develop and submit specific treatment and disposal plans to NDEP, within nine months.

#### **Federal Facility Agreement and Consent Order (FFACO) (1996)**

The FFACO, which became effective in May 1996, applies only to NSO facilities in Nevada. It outlines a process for identifying, prioritizing, investigating, and remedying sites contaminated by years of nuclear weapons production and testing. It also establishes a technical strategy for cleanup activities, maximizes the opportunity to complete multiple corrective actions, and provides a mechanism for public involvement. The FFACO applies to inactive contaminated sites and facilities at: the NTS; the Central Nevada and Project Shoal Test Areas; parts of the Tonopah Test Range; and parts of the Nellis Air Force Range. The NSO, the State of Nevada, and the U.S. Department of Defense entered into this tri-party agreement to meet the following objectives:

- Identify sites with potential historical contamination and implement proposed corrective actions.
- Establish specific sampling and monitoring requirements.
- Ensure cooperation, coordination, and communication among the parties.
- Reduce substantially the costs of cleanup activities.
- Develop cost-effective approaches to site management.

#### **Federal Facility Compliance Act-Consent Order (1996)**

The State of Nevada and the NSO approved both the FFCAct-Consent Order (CO) and the NTS Site Treatment Plan in March 1996. The FFCAct-CO contains schedules derived from the NTS Site Treatment Plan and identifies specific facilities for treating the identified mixed waste streams on the NTS. This mixed waste must be managed in compliance with the NTS Site Treatment Plan and the FFCAct-CO.

The FFCAct-CO requires the NSO to submit an annual update of the Site Treatment Plan to NDEP. A June 1998 revision to the FFCAct-CO, requires that any new milestones and/or deadlines for mixed waste treatment must be proposed in these annual updates to the Site Treatment Plan.

#### **Summary**

Cleanup (remediation) of DOE sites across the United States represents the free world's largest environmental restoration effort. The Environmental Management Program within DOE is an essential part of this mission. The DOE NSO is committed to meeting the objectives of this restoration effort at the NTS through the responsible characterization and safe remediation of inactive contaminated sites for which it is responsible. All activities are conducted in compliance with applicable federal, state, local, and tribal laws and regulations. This approach ensures that, to the greatest extent possible, the public can be involved in decisions regarding environmental restoration and that programmatic objectives will be met with minimal impacts to the environment, workers, and surrounding communities.

### **GLOSSARY OF ACRONYMS**

<b>CERCLA</b>	<b>Comprehensive Environmental Response, Compensation and Liability Act</b>
<b>DOE</b>	<b>Department of Energy</b>
<b>EIS</b>	<b>Environmental Impact Statement</b>
<b>EM</b>	<b>Environmental Management</b>
<b>FFACO</b>	<b>Federal Facility Agreement and Consent Order</b>
<b>FFCAct</b>	<b>Federal Facility Compliance Act</b>
<b>FFCAct-CO</b>	<b>Federal Facility Compliance Act-Consent Order</b>
<b>FONSI</b>	<b>Finding of No Significant Impact</b>
<b>NDEP</b>	<b>Nevada Department of Environmental Protection</b>
<b>NEPA</b>	<b>National Environmental Policy Act</b>
<b>NSO</b>	<b>Nevada Site Office (for the DOE)</b>
<b>NSO/EM</b>	<b>Nevada Site Office Environmental Management</b>
<b>NTS</b>	<b>Nevada Test Site</b>
<b>RCRA</b>	<b>Resource Conservation and Recovery Act</b>