

## 3.0 COMPLIANCE SUMMARY

Environmental compliance activities at the Nevada Test Site (NTS) during calendar year (CY) 2000 involved the permitting and monitoring requirements of numerous state of Nevada and federal regulations. Primary activities included the following: (1) National Environmental Policy Act (NEPA) documentation preparation; (2) Clean Air Act (CAA) compliance for asbestos renovation projects, radionuclide emissions, and state air quality permits; (3) Clean Water Act (CWA) compliance involving state wastewater permits; (4) Safe Drinking Water Act (SDWA) compliance involving monitoring of drinking water distribution systems; (5) Resource Conservation and Recovery Act (RCRA) management of hazardous wastes; (6) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) reporting; (7) Toxic Substances Control Act (TSCA) management of polychlorinated biphenyls; (8) Endangered Species Act (ESA) compliance involving the conduct of pre-construction and site-wide surveys to document the status of state and federally listed endangered or threatened plant and animal species; and (9) National Historic Preservation Act (NHPA) compliance for the protection of Cultural and Native American Resources. There were no activities requiring compliance with Executive Orders (EOs) on Flood Plain Management or Protection of Wetlands.

Throughout CY 2000 the NTS was subject to several formal compliance agreements with various regulatory agencies. Agreements with Nevada include a Memorandum of Understanding covering releases of radioactivity; a Federal Facilities Agreement and Consent Order (FFACO), an Agreement in Principle covering environment, safety, and health activities; a Settlement Agreement to manage mixed transuranic (TRU) waste; and a Mutual Consent Agreement on management of mixed land disposal restriction (LDR) wastes, among others. Emphasis on pollution prevention and waste minimization at the NTS continued in 2000.

Compliance activities at non-NTS facilities of the National Nuclear Security Administration Nevada Operations Office (NNSA/NV) involved the permitting and monitoring requirements of (1) the CAA for airborne emissions, (2) the CWA for wastewater discharges, (3) SDWA regulations, (4) RCRA disposal of hazardous wastes, and (5) hazardous substance reporting. Pollution prevention and waste minimization efforts continued at all locations.

### 3.1 COMPLIANCE STATUS

#### NATIONAL ENVIRONMENTAL POLICY ACT

Rulings by the Council on Environmental Quality, "Regulations of the National Environmental Policy Act" [40 Code of Federal Regulations (CFR) 1500 - 1508] require federal agencies to consider environmental effects and values and reasonable alternatives before making a decision to implement any major federal action that may have a significant impact on the human environment.

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Since November 1994, NNSA/NV has had full delegation of authority from the U.S. Department of Energy Headquarters (DOE/HQ) for Categorical Exclusion (CX) Determinations, Environmental Assessments (EAs), issuing Findings of No Significant Impact, and floodplain and wetland action documentation related to NNSA/NV proposed actions.

The NNSA uses three levels of documentation to demonstrate compliance with NEPA: (1) an Environmental Impact Statement (EIS) is a full disclosure of the potential environmental effects of proposed actions and the reasonable alternatives to those actions; (2) an EA is a concise discussion of a proposed action and alternatives and the potential environmental effects to determine if an EIS is necessary; and (3) a CX is used for classes of action which have been found to have no adverse environmental impacts, based on similar previous activities. NNSA/NV activities involved only CXs and EAs during CY 2000.

Completion of a NEPA Environmental Evaluation Checklist is required under the NNSA/NV Work Acceptance Process Procedural Instructions (Carlson 2000) for all proposed projects or activities. The Checklist is reviewed by the NNSA/NV NEPA Compliance Officer to determine whether the project or activity is included in the NTS/EIS and record of decision (ROD) or other previously completed NEPA analysis. During CY 2000, checklists were completed for 60 proposed projects or activities at the NTS. Seventeen of these 60 were exempted from further NEPA analyses by being a CX; 38 were exempted due to previous analysis in the NTS/EIS and ROD; four were exempted due to previous NEPA analysis and determinations in EA's; and one required further NEPA analysis, i.e., an EA. The EA for Temporary Storage of Fuel for the Sandia Pulsed Reactor was subsequently canceled on March 12, 2000. An EA for a proposed Alternative Energy Generation Facility, to be located in various Areas at the NTS, was initiated in 2000 and is still in progress.

Still pending is the following document developed by or with NNSA/NV involvement:

- Kistler Aerospace Corporation in Areas 18 and 19 EA.

## **CLEAN AIR ACT (CAA)**

The CAA and the state of Nevada air quality control compliance activities were limited to asbestos abatement, radionuclide monitoring, reporting under the National Emission Standards for Hazardous Air Pollutants (NESHAP), and air quality permit compliance requirements. There were no criteria pollutant or prevention of significant deterioration monitoring requirements for NTS operations.

### **NTS NESHAP Asbestos Compliance**

The state Division of Occupational Safety and Health regulations (Nevada Administrative Code [NAC] 618.850, 1989) require that all asbestos abatement projects in Nevada, involving friable asbestos in quantities greater than or equal to three linear feet or three square feet, submit a Notification Form. Notifications are also required to be made to the U.S. Environmental Protection Agency (EPA) Region 9 for projects which disturb greater than 260 linear ft or 160 ft<sup>2</sup> of asbestos-containing material, in accordance with Title 40 CFR 61.145-146 (CFR 1989).

During 2000, there were no projects that required state of Nevada notifications be made. The annual estimate for non-scheduled asbestos demolition/renovation for fiscal year (FY) 2000 was sent to EPA Region 9 on December 13, 1999.

### **Radioactive Emissions on the NTS**

NTS operations were conducted in compliance with the NESHAP radioactive air emission standards of Title 40 CFR 61, Subpart H. In compliance with those requirements, a report on airborne radioactive effluents is provided to DOE/HQ and to EPA's Region 9.

There are two locations on the NTS where airborne radioactive effluents may be emitted from permanent stacks: (1) the tunnels in Rainier Mesa, and (2) the analytical laboratory hoods in the community of Mercury. Based on the amount of radioactivity handled, the exhaust from the analytical laboratories is considered negligible compared to other sources on the NTS and the tunnels have been sealed (although water still seeps from one). Present sources are evaporation of tritiated water (HTO) from containment ponds, diffusion of HTO vapor from the Area 5 Radioactive Waste Management Site (RWMS-5), the SEDAN test in Area 10, the SCHOONER test in Area 20, and resuspension of plutonium contaminated soil from nuclear device safety test and atmospheric test locations.

In the CY 2000, NTS NESHAP report for airborne radioactive effluents (Grossman 2001), airborne emission of HTO vapor from the containment ponds was conservatively reported as if all the liquid discharge into the ponds had evaporated and become airborne. For HTO vapor diffusing from the RWMS-5, SEDAN, and SCHOONER, and plutonium/ameridium particulate resuspension from various areas on and near the NTS, the airborne effluents were conservatively estimated.

Using these conservative estimates of air emissions, the effective dose equivalent reported for CY 2000 was calculated to be only 0.17 mrem ( $1.7 \times 10^{-3}$  mSv), much less than the 10-mrem limit that is specified in Title 40 CFR 61.

### **NTS Air Quality Permit Compliance**

Compliance with air quality permits is accomplished by adhering to record keeping and reporting requirements and through renewal and ongoing verification of operational compliance with permit-specified limitations. A list of active NTS air quality permits appears in Table 3.1. Common air pollution sources at the NTS include aggregate production, surface disturbances, fugitive dust from unpaved roads, fuel burning equipment, open burning, and fuel storage facilities.

Quantities of emissions from operations at the NTS are calculated and submitted each year to the state of Nevada using forms provided by the state. The report also includes aggregate production amounts, operating hours of permitted equipment, and surface disturbance information for all disturbances of five acres or greater. During 2000, approximately 14 tons of pollutants were estimated to be emitted from permitted operations at the NTS. The Air Quality Permit Data Report was sent to the state of Nevada in February 2000.

One of the conditions of the permit is to allow state of Nevada Bureau of Air Quality personnel access to the NTS to conduct inspections of facilities and operations regulated by state air permits. During 2000, there were no state inspections of NNSA/NV facilities possessing air quality permits.

Monthly visible emissions readings are a requirement of the NTS air quality operating permit, AP9711-0549. The permit limits particulate emissions to 20 percent opacity, except at the Area 1 Aggregate Plant, where portions of the Plant have a limit of 10 percent. Certification of personnel to perform valid visible emission opacity evaluations is required by the state, with recertification required every six months. During 2000, two employees from Bechtel Nevada (BN) were recertified, and several visible emission evaluations of permitted air quality point sources were conducted. The opacity limit was not exceeded in 2000.

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## **Non-NTS Air Quality Permit Compliance**

Under normal conditions, the six non-NTS facilities operated by the NNSA/NV do not produce radioactive effluents. The six are, the North Las Vegas Facility (NLVF) and Remote Sensing Laboratory (RSL) at Nellis Air Force Base in North Las Vegas, Nevada; Special Technologies Laboratory (STL) in Santa Barbara, California; Livermore Operations (LO) in Livermore, California; Los Alamos Operations (LAO) in Los Alamos, New Mexico; and RSL Andrews Air Force Base in Washington, D.C. The NLVF and RSL facilities in North Las Vegas are regulated for the emission of criteria pollutants and maintain air quality operating permits for a variety of equipment that mainly includes boilers and generators (Table 3.2). Twelve air quality operation permits and two dust permits, issued by the Clark County Health District in Las Vegas, Nevada, were required for operations at the NLVF and RSL during 2000. There were no effluent monitoring requirements associated with these permits.

No air permits were held or required for the LO, LAO, or RSL-Andrews facilities in 2000.

## **CLEAN WATER ACT (CWA)**

The Federal Water Pollution Control Act, as amended by the CWA, establishes ambient water quality standards and effluent discharge limitations which are generally applicable to facilities that discharge any materials into the waters of the United States (CFR 1977). Discharges from NNSA/NV facilities are primarily regulated under the laws and regulations of the facility host states. Monitoring and reporting requirements are typically included under state or local permit requirements. A list of applicable permits appears in Tables 3.3, 3.4, and 3.5. There are no National Pollutant Discharge Elimination System permits for the NTS, as there are no wastewater discharges to onsite or offsite surface waters.

## **NTS Operations**

Discharges of wastewater are regulated by the state under the Nevada Water Pollution Control Law (Nevada Revised Statutes 1977). The state of Nevada also regulates the design, construction, and operation of wastewater collection systems and treatment works. Wastewater monitoring at the NTS was limited to sampling wastewater influents to sewage lagoons and containment ponds.

State general permit GNEV93001 (Table 3.3), which regulates the ten usable sewage treatment facilities on the NTS, was issued by the Nevada Division of Environmental Protection (NDEP) and became effective on February 1, 1994. The general permit was renewed for five years on December 7, 1999. The permit was structured to allow The NNSA more flexibility in bringing new industrial processes on line.

Downsizing of NTS operations has resulted in low flow conditions at sewage lagoon systems servicing the Area 5 RWMS, Area 12 Camp, Area 25 Central Support Facility, Area 25 Reactor Control Point, and Area 6 Los Alamos National Laboratory. Automated flow meters are subject to incorrect flow measurements at low flow rates; therefore, a system was tested this year which incorporated a tipping bucket and timer. This system proved effective for accurate flow measurements in low flow situations. The use of this measuring system was noted in the Quarterly Discharge Monitoring Reports submitted to the state.

In the second quarter of 2000, the Operations and Maintenance Plan for the NTS sewage lagoons was updated and transmitted to NDEP for approval. In August, the state approved the plan, with comments. Also during this quarter, the Area 6 Device Assembly Facility (DAF)

sewage lagoon influent exceeded the pH limit of 9.0 by 0.1 pH units (reported as 9.1). An investigation revealed no unusual circumstances or processes which could contribute to this exceedence. Supply water from wells serving the DAF typically have a pH of 8.5 - 8.8, and therefore already exhibit a high pH. Results of the investigation were reported to NDEP.

During the third Quarter of 2000, the NNSA requested a waiver from administrative controls for the Area 25 Central Support Area sewage lagoon. Declining worker population at this site had reduced the flow and subsequent reporting parameters for administrative controls. Relief was granted by NDEP, with conditions, should the population increase again.

During the fourth Quarter of 2000, the NNSA proposed that the monitoring requirements for low flow systems be changed. The NNSA proposed not to sample lagoons that have less than 30 cm of sewage accumulated in their primaries. No response was received from NDEP by the close of the year. A response is expected in 2001.

There were no formal state inspections of the sewage lagoons in 2000.

In May of 2000, the NNSA inspected Area 25 facilities to meet the "administrative controls" requirements in the permit for industrial discharges. All facilities and operations were determined to be in compliance.

### **Non-NTS Operations**

Three permits for wastewater discharges were held by non-NTS facilities. One permit is required for the NLVF, and the STL holds wastewater permits for the Botello Road and Ekwil Street locations (Table 3.3). No wastewater permits were required for the LO, LAO, or RSL-Andrews facilities in 2000.

The Wastewater Contribution Permit for NLVF (VEH-112) was renewed in 1999, with an effective date of January 1, 2000. In October 2000, the city of North Las Vegas removed monitoring requirements for mercury, organophosphorus or carbamate compounds, selenium, arsenic, and beryllium from VEH-112.

## **SAFE DRINKING WATER ACT (SDWA)**

### **NTS Operations**

The Safe Drinking Water Act and state of Nevada regulations (NAC 445A) constitute the basis for drinking water compliance at the NTS. The state of Nevada has enforcement authority for the SDWA and has promulgated regulations covering operation and maintenance, water haulage, operator certification, permitting, and SDWA monitoring requirements.

BN operates four public water systems at the NTS (Table 3.4). Permits are renewed annually in September. The water systems are monitored for coliform bacteria, volatile organic chemicals, inorganic chemicals, synthetic organic compounds, and other water quality parameters on a schedule established by the state of Nevada in accordance with federal requirements.

In 2000, the four systems were in compliance with SDWA monitoring requirements, with one exception. During 2000, lead was found above the action level in one system. Corrective action was initiated to resolve this problem (see Chapter 6.0 for details). All other monitoring results for 2000 were within regulatory limits and are discussed in Chapter 6.0. The cross-connection

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control program at the NTS is not well-documented, and NNSA/NV was not able to complete a Cross-Connection Control Plan, as required by state regulation. An engineering study has been commissioned and steps have been taken to correct the record-keeping deficiencies.

### **NTS Water Haulage**

To accommodate the diverse and often transient field work locations at the NTS, a water haulage program is used. To ensure potability of hauled water, permitted water hauling trucks use a sanitary connection to obtain and deliver potable water from a permitted water system. In 2000, the NTS maintained three permitted water hauling trucks. Water hauling permits are renewed annually at the same time as the regular water system permits (Table 3.4).

Water hauling trucks are sampled monthly for coliform bacteria. One of the trucks had one positive coliform bacteria sample in 2000. Detailed information appears in Chapter 6.0.

### **Non-NTS Operations**

All non-NTS operations receive municipal water and have no compliance activities under the SDWA and state/local regulations.

## **RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)**

RCRA (RCRA 1976) and the Hazardous and Solid Waste Amendments of 1984 constitute the statutory basis for the regulation of hazardous waste and underground storage tanks (USTs). Under Section 3006 of RCRA, the EPA may authorize states to administer and enforce hazardous waste regulations. Nevada has received such authorization and acts as the primary regulator for many NNSA/NV facilities. The Federal Facilities Compliance Act (FFCA) of 1992 extends the full range of enforcement authorities in federal, state, and local laws for management of hazardous wastes to federal facilities, including the NTS.

### **NTS RCRA Compliance**

In 2000, NNSA/NV received a new RCRA Hazardous Waste Operating Permit for the Area 5 Hazardous Waste Storage Unit (HWSU) and the Area 11 Explosive Ordnance Disposal Unit.

In 2000, NNSA/NV let expire a RCRA Research Development and Demonstration Permit for the construction and operation of the Tactical Demilitarization Development (TaDD) facility. This facility will develop treatment methods for deactivating waste missiles. The NNSA will reapply for this permit upon project initiation.

## **HAZARDOUS WASTE REPORTING FOR NON-NTS OPERATIONS**

The LO, STL, and LAO locations generate hazardous waste and have EPA Identification numbers, but have no reporting requirements because they are operated as conditionally exempt small quantity generators of hazardous waste.

## **UNDERGROUND STORAGE TANKS (USTs)**

### **NTS Operations**

The NTS UST program has met regulatory compliance schedules for the reporting, upgrading, or removal of documented USTs. During 2000, there were no regulated USTs removed or upgraded, as all requirements had been satisfied in 1998.

The NNSA/NV operates one deferred UST and three excluded USTs at the DAF. The NNSA/NV also maintains a fully-regulated UST that is not currently in service at the Area 6 heli-pad.

The NTS also has 12 unregulated underground heating oil tanks. In CY 2000, one tank was upgraded with spill protection and four tanks were upgraded with spill and overfill protection. Impacted soil from historic spills around four of the tank fill ports was remediated. One of the spill sites was administratively closed in place because removal of impacted soil would have affected essential services.

### **Non-NTS Operations**

The RSL operates three fully-regulated USTs, one deferred UST, and two excluded USTs. All are in compliance with the regulations.

## **COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA)/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA)**

In April 1996, the NNSA/NV, Department of Defense, and the NDEP entered into a FFACO pursuant to Section 120(a)(4) of CERCLA (CERCLA 1980) and Sections 6001 and 3004(u) of RCRA (RCRA 1976) to address the environmental restoration of historic contaminated sites at the NTS, parts of Tonopah Test Range (TTR), parts of the Nellis Air Force Range (NAFR), the Central Nevada Test area, and the Project SHOAL area. Appendix VI of the FFACO describes the strategy that will be employed to plan, implement, and complete environmental corrective action at facilities where nuclear-related operations were conducted.

## **FEDERAL FACILITIES AGREEMENT AND CONSENT ORDER (FFACO)**

### **Remedial Activities - Surface Areas**

Environmental restoration activities continued at the NTS and TTR in FY 2000. These activities comply with the agreements specified in the FFACO signed between the NNSA/NV and the NDEP and follow a formal work process beginning with a Data Quality Objectives (DQO) meeting between NNSA, NDEP, and contractors. The purpose of the DQO meeting is to define the scope of work, how the site characterization is to be done (sampling strategy), and to develop the conceptual model for the site. The conceptual model defines the nature and extent of waste in the subsurface and guides the investigation. A Corrective Action Investigation Plan is prepared, providing the information on how the site is to be characterized.

Site characterization is carried out and documented in the Corrective Action Decision Document (CADD). This report provides the information that either confirms the conceptual model or modifies it. If suitable information is available to make a decision, a remedial alternative is selected from several alternatives identified for analysis that best provides site closure. In some instances, additional site characterization may be required before the CADD can be prepared.

If a site requires remediation, a Corrective Action Plan (CAP) is prepared that provides the necessary design and other information on the method of remediation. A CAP includes the proposed methods to be used to close a site, quality control measures, waste management strategy, design drawings (when appropriate), verification sampling strategies (for clean closures)

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and other information necessary to perform the closure. Some sites also require a Post Closure Plan as the site or parts of the site are closed in place. Information on inspections and monitoring are provided in an Annual Post Closure Monitoring Report.

Once the closure has been completed, a Closure Report is prepared. This report provides information on the work performed, results of verification sampling, as-built drawings (if appropriate), waste management, etc.

The NDEP is a participant throughout the remediation process. The Community Advisory Board is also kept informed by NNSA/NV of the progress made.

Some sites are closed under the Streamlined Approach for Environmental Restoration (SAFER) process. These sites typically have suitable information available and can be remediated under a shorter schedule. A SAFER plan is prepared providing the methods to be used to close the site. After closure, a SAFER closure report is prepared that documents the work performed.

During 2000 all FFACO deadlines were met. The actions taken are summarized below:

- Annual Post Closure Monitoring Reports were submitted to comply with the conditions of the RCRA Part B Permit for the Area 2 Bitcutter Shop and Lawrence Livermore National Laboratory (LLNL) Post Shot Containment Building Injection Wells (corrective action unit [CAU] 90), Area 23 Landfill Hazardous Waste Trenches (CAU 112), U3fi Injection Well (CAU 91), and Area 6 Decontamination Pond (CAU 92) RCRA Closure Units.
- Several other CAUs also had post closure monitoring reports prepared. These were the Area 12 Steam Fleet Operations Steam Cleaning Discharge Area (CAU 339), Roller Coaster Sewage Lagoons, TTR (CAU 404), Cactus Springs Waste Trenches, TTR (CAU 426), Area 3 Septic Waste Systems 2 and 6, TTR (CAU 427), and Area 9 UXO Landfill, TTR, (CAU 453).
- The closure plan for the U3ax/bl Subsidence Crater was prepared and approved by NDEP. The plan discusses the use of a monolayer evapotranspiration cover that takes advantage of the low precipitation and high evapotranspiration at the NTS. Closure is to be done during the first quarter of fiscal year 2001.
- The DOUBLE TRACKS Radsafe Area site (CAU 486) was closed and the draft closure report prepared.
- The Area 25 Building 4839 Leachfield (CAU 263) was closed.
- The CAP for the ROLLER COASTER Radsafe Area (CAU 407) in TTR was prepared and the site closed.
- Preparation of the draft CAP for the Area 25 Waste Dumps (CAU 143) began.
- The Area 25 Storage Tanks (CAU 135) CAP was prepared and approved by the NDEP. The site was also closed.
- The Area 25 Vehicle Wash Down Sites (CAU 240) CAP was prepared and the site closed. Preparation of the draft closure report began.
- The closure report for the NTS Pesticide Release Site (CAU 340) was prepared and sent to the NDEP.

- The CAU 232, Area 25 Sewage Lagoons was closed.
- The Sectorized Clean-Up Work Plan for Housekeeping Sites was prepared and sent to the NDEP. This document will allow removal of housekeeping waste without preparation of a plan for each CAU.
- Housekeeping CAU 345 (Areas 2 and 9 Housekeeping) was closed and a draft closure report prepared.
- Housekeeping CAU 524, (Areas 25, 6, 12, and 19 Housekeeping Waste) was closed and a closure report prepared.
- The closure report for CAU 342, Area 23 Mercury Fire Training Pit was prepared and sent to the NDEP.
- The corrective action investigation plan (CAIP) for CAU 261, Area 25 R-MAD Contaminated Leachfields was prepared and sent to the NDEP.
- CAU 321, Area 2 Weather Station Fuel Storage was characterized and a CADD and CAP were prepared and sent to the NDEP. Closure activities began but required rescoping when it became apparent that additional characterization was required.
- The Area 3 Septic Waste Systems 1 and 5, TTR (CAU 428) was characterized and a CADD and CAP were prepared and sent to the NDEP.
- The CADD for CAU 261, Area 25 Test Cell A Leachfield System was prepared and sent to the NDEP. The CAP for was prepared and sent to the NDEP.
- CAU 230, Area 22 Sewage Lagoons and CAU 320, Area 22 Desert Rock Airport Strainer Box site were characterized. The CADD and CAP were prepared and sent to the NDEP.
- The Draft White Paper on Deactivation and Decomposing (D&D) Activity for FY 2000 Accomplishments was prepared and distributed.
- The D&D Surveillance and Maintenance Activities Master Plan, NTS was prepared and distributed.
- Preparation of the SAFER Work Plan for CAU 113, R-MAD began.
- The CAIP for the Station 44 Burn Area, TTR (CAU 490) was prepared and sent to the NDEP. The site was characterized and a CADD prepared and sent to the NDEP.
- The CADD for the Area 25 R-MAD Decontamination Facility (CAU 254) was prepared and sent to the NDEP. Preparation of the CAP began.
- CAU 409, other Waste Sites CAIP was prepared and sent to the NDEP.
- CAU 329, Area 22 Desert Rock Airstrip Fuel Spill was closed and a SAFER Closure Report sent to the NDEP.
- CAU 417 of the Central Nevada Test Area was closed. The CAP was prepared and sent to the NDEP.

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## **EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT (EPCRA)**

EPCRA compliance activities for 2000 included upgrading of the inventory system to accommodate intranet data submittal, improved reporting, and standardization of hazard classifications for chemicals reported.

In March 2000, the Nevada Combined Agency Report was submitted to the state Fire Marshall's office by NNSA/NV. EPCRA compliance with Section 302 (Planning Notification) and Sections 311-312 (Material Safety Data Sheet/Chemical Inventory) for the NTS, Hazardous Materials Spill Center (HSC), NLVF, and the RSL was met. No planning thresholds were exceeded at these facilities. Chemical Catastrophe Prevention Program requirements were also met for these facilities. The latter program covers extremely hazardous substances (EHSs).

A Toxic Release Inventory Report required by Section 313 of the SARA Title III must be provided if the facility, any time in the prior CY, exceeds any section 313 threshold for manufacture, process, or other use. In CY 1999, no thresholds were exceeded, so no report was required in 2000.

### **Non-NTS Tier II Reporting Under SARA Title III**

The reports for the off-NTS Nevada facilities, RSL and NLVF, are described under EPCRA above.

Other non-Nevada operations either had no chemicals above reporting thresholds or submitted their chemical inventories to the cities/counties as part of their business plans.

## **DOE ORDER 435.1 RADIOACTIVE WASTE MANAGEMENT**

In June of 2000, NNSA/NV prepared an Implementation Plan to meet the DOE Order 435.1 requirements. This implementation plan established a compliance schedule for the development of a Site Specific Manual, identification of facilities and activities subject to 435.1, and the development of an integrated Sitewide Radioactive Waste Management Program (SWRWMP) requiring full implementation by March 5, 2001. A manual (NV M435.1-1) was issued in August 2000 that established an integrated SWRWMP and the basis for the management of radioactive waste (i.e., low-level, transuranic, and mixed low-level) under the responsibility of NNSA/NV. The Office of the Assistant Manager for Environmental Management (AMEM) was granted responsibility for this Program.

This Manual authorized creation of an AMEM-appointed panel called the Radioactive Waste Management Basis Assistance and Review Team (RWMBART). The RWMBART, as chaired by the Division Director, Waste Management Division, is an independent team comprised of representatives from NNSA/NV and various contractors. RWMBART responsibilities include guidance and review of technical elements to support full compliance with the requirements of DOE O 435.1. Specifically, this requires that all NNSA/NV organizations, facilities, or activities that generate, treat, store, or dispose of radioactive waste develop a Radioactive Waste Information Document (RWID). RWIDs provide the backbone in support of a defensible basis as part of NNSA/NV's SWRWMP.

During the reporting period, extensive research was conducted by subject matter experts to determine the nature and quantity of wastes managed by NNSA/NV at the NTS and offsite locations within the state of Nevada and to identify the responsible parties subject to this order. This process also included the preliminary development of draft RWID documentation for future RWMBART review and approval. In support of the March 5, 2001, deadline, programmatic elements related to Team meetings and the RWIDs are planned for early 2001.

## **STATE OF NEVADA CHEMICAL CATASTROPHE PREVENTION ACT**

The state of Nevada Chemical Catastrophe Prevention Act of 1992 contains regulations for facilities defined as Highly Hazardous Substance Regulated Facilities (NAC 1992). This law requires registration of facilities storing highly hazardous substances above listed thresholds. Reporting for this program is also covered by the Nevada Combined Agency Report discussed under EPCRA above.

A Chemical Catastrophe Accident Prevention registration form was submitted by NNSA for nitrogen dioxide, sulfur dioxide, thionyl chloride, anhydrous ammonia, and hydrochloric acid in July 2000.

There were no reportable EHS chemicals at other NNSA/NV facilities (NTS, RSL, NLVF) in 2000.

## **TOXIC SUBSTANCES CONTROL ACT (TSCA)**

The state of Nevada regulations implementing the TSCA require submittal of an annual report describing polychlorinated biphenyl (PCB) control activities. The 1999 PCB Report indicated that there were no In-Service PCB Electrical Equipment (transformers/capacitors), and no Article Containers removed from service, and as of January 1, 2000, there were no known large PCB-containing transformer/regulators remaining in service at the NTS that would require reclassification.

## **FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT (FIFRA)**

Pesticide usage included insecticides, herbicides, and rodenticides. Insecticides were applied twice a month at the food service and storage areas. Herbicides were applied once or twice a year at NTS sewage lagoon berms. All other pesticide applications were on an as-requested basis. General-use pesticides are used exclusively at the NTS. Contract companies applied pesticides at all non-NTS facilities in 2000.

## **THREATENED AND ENDANGERED SPECIES PROTECTION**

The ESA (CFR 1973) requires federal agencies to insure that their actions do not jeopardize the continued existence of federally listed endangered or threatened species or their critical habitat. The desert tortoise (*Gopherus agassizii*) and bald eagle (*Haliaeetus leucocephalus*) are the only threatened species which occur on the NTS. No endangered animals and no threatened or endangered plants are known to occur on the NTS. Consultation with the United States Fish and Wildlife Service (USFWS) resulted in receipt of a non-jeopardy Biological Opinion in August 1996 for planned activities at the NTS for a ten-year period (USFWS 1996).

The Desert Tortoise Compliance Program implemented the terms and conditions of the USFWS Biological Opinion and documented compliance actions taken by NNSA/NV. The terms and conditions, which were implemented in 2000, included (1) tortoise clearance surveys for 16

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projects, (2) onsite monitoring of construction for 14 projects when heavy equipment was being used, (3) periodic monitoring of tortoise-proof fencing around the ER-5-2 Well and at sewage treatment ponds in Areas 6 and 23, and (4) preparation of an annual compliance report for the USFWS of NTS activities that were conducted in CY 2000. Project activities conducted in CY 2000 resulted in the loss of 6.21 acres of undisturbed tortoise habitat. Since issuance of the first non-jeopardy Biological Opinion in 1992, no tortoises have been accidentally injured or killed; no tortoises have been captured and displaced from project sites; and a total of 176.63 acres of desert tortoise habitat has been disturbed as a result of NTS activities.

In October 2000, a team of volunteer biologists, led by the Southern Nevada Field Office of the USFWS, captured, measured, and weighed desert tortoises within three 21-acre circular enclosures in Rock Valley. The circular enclosures were constructed during 1962-1963 to study the effects of chronic, low-level ionizing radiation on the desert flora and fauna. Over the past decades, at least 24 tortoises have been found, individually marked, and periodically measured. There are approximately 18 adult tortoises remaining in the enclosures. They are considered captive by the USFWS and are not protected under the 1996 Biological Opinion. In 2000, one immature tortoise and 17 adult tortoises were captured, measured, and weighed.

The threatened bald eagle is an uncommon transient to the NTS and is not expected to be impacted by NTS activities. No sitewide surveys to determine its distribution or abundance have been conducted. Records of all bird sightings, which are made opportunistically, are maintained to provide some data on the occurrence of various birds on the NTS. There were no reported sightings of bald eagles on the NTS in 2000.

## **HISTORIC PRESERVATION**

The National Historic Preservation Act (NHPA) of 1966, the Archeological Resources Protection Act of 1979, and the regulations related to these laws direct federal agencies to inventory and manage the cultural resources under their stewardship. As of the end of 2000, approximately 8 percent of the NTS had been surveyed for cultural resources with more than 2,800 sites recorded. The NHPA also requires consultation with interested parties, especially Native Americans, in regard to historic preservation activities and proposed decisions affecting cultural resources.

NNSA/NV conducted cultural resources surveys and historical evaluations prior to undertakings in order to determine if proposed activities would adversely affect significant historic properties. Under the NHPA, all NNSA/NV cultural resources reports and plans are reviewed by the Nevada State Historic Preservation Office (NSHPO) for compliance with the NHPA. All consultations with the NSHPO were completed successfully, with proposed projects proceeding and documents finalized for distribution to the Nevada State Cultural Resources Archives.

Besides the obligation to identify, protect, and preserve the cultural resources eligible or potentially eligible for inclusion on the National Register of Historic Places, under the NHPA, NNSA/NV is required to maintain the archaeological materials recovered from the NTS in a secure and environmentally-controlled facility. NNSA/NV continued to maintain such a curatorial facility that houses more than a half million artifacts and associated records.

The American Indian Religious Freedom Act of 1978 affirms Native Americans right to religious freedom and defines the responsibility of federal agencies to consult with Native Americans in developing policies and procedures to protect and preserve cultural and spiritual traditions and sites. Executive Order 13007 of 1996 obligates federal agencies to accommodate the access to

and ceremonial use of Native American sacred sites and to maintain their integrity. In 2000, the final technical report for the Fortymile Canyon rock art sites was issued and these sites have special importance to the Native Americans.

The Native American Graves Protection and Repatriation Act (NAGPRA) requires federal agencies to consult with Native Americans regarding items in their artifact collections that may qualify for repatriation to a tribe. NAGPRA consultations for the main NNSA/NV collection were completed several years ago. However, three small collections, known as the Worman, McKinnis, and Hot Creek collections, have been the focus of a new round of NAGPRA consultations. In 2000, NNSA/NV accepted the recommendations of the Consolidated Group of Tribes and Organizations regarding the items to be repatriated to them from these collections. The Worman and McKinnis NAGPRA items have been returned and the Hot Creek artifacts are in the process of being returned.

## **MIGRATORY BIRD TREATY ACT**

The Migratory Bird Treaty Act governs the taking, killing, or possession of migratory birds. All but a few of the 236 species of birds observed on the NTS are protected under this Act. During CY 2000, one mourning dove was collected and sacrificed for radionuclide tissue analysis under the state of Nevada Division of Wildlife Scientific Collection Permit Number S19301. Two dead migratory birds were salvaged on the NTS under this same state permit. A great-horned owl was electrocuted by a powerline in Area 6, and a common flicker apparently flew into a window of a building in Mercury. Both birds were taken to a taxidermist for mounting and use in wildlife education.

## **EXECUTIVE ORDER (EO) 11988 FLOODPLAIN MANAGEMENT**

NTS design criteria do not directly address floodplain management; however, all projects are reviewed for areas which would be affected by a 100-year flood pursuant to DOE Order 6430.1A (DOE 1989). There were no projects in 2000 that required consultation for floodplain management.

## **EXECUTIVE ORDER (EO) 11990 PROTECTION OF WETLANDS**

There were no projects in 2000 which required consultation for protection of wetlands. NTS design criteria do not specifically address protection of wetlands; however, all projects are reviewed pursuant to the requirements of DOE Order 5400.1 (DOE 1990a). Limited monitoring of selected wetlands occurred during 2000 to further characterize the biological and physical conditions at the five new wetlands discovered during 1998.

## **3.2 AGREEMENTS WITH STATES AND AGENCIES**

During 2000, the NTS was subject to several agreements with regulatory agencies and states. These agreements are listed below.

- an Interagency Agreement with EPA covering environmental monitoring, emergency response, and related activities.
- a Memorandum of Understanding (MOU) with EPA regarding NESHAP compliance.

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- a MOU with Nevada covering releases of radioactivity.
  - a MOU with Nellis Air Force Base for environmental restoration on the TTR.
  - a FFACO with the state of Nevada on environmental restoration activities.
  - a Consent Order under the FFCA with the state of Nevada regarding the storage of restricted mixed waste streams on the NTS.
  - an Agreement in Principle (AIP) with Nevada on environment, safety, and health oversight activities.
  - an AIP with Mississippi on environment, safety, and health oversight activities.
  - an AIP with Alaska on environment, safety, and health oversight activities.
  - a Settlement Agreement with Nevada concerning the of existing inventory of mixed TRU waste.
  - a Mutual Consent Agreement with Nevada on storage and management of newly generated mixed LDR wastes on NTS.

### **3.3 CURRENT ENVIRONMENTAL COMPLIANCE ISSUES AND ACTIONS**

There were numerous activities and actions relating to environmental compliance issues in 2000. These activities and actions are discussed below, grouped by general area of applicability.

#### **CLEAN AIR ACT (CAA)**

Under Title V, Part 70 of the CAA amendments, all owners or operators of Part 70 sources must pay annual fees to the state that are sufficient to cover the costs of operating permit programs.

Sources such as the NTS that have a potential to emit 50 tons or more of any regulated pollutant, except carbon monoxide, must pay an annual fee of \$3,000. Sources that have a potential to emit less than 25 tons per year, such as the TaDD and UGTA projects, must pay an annual fee of \$250. Maintenance and emissions fees of approximately \$3,800 were paid to the NDEP in June 2000.

A modification package for the NTS Class II Air Quality Operating Permit AP9711-0549 was submitted to the state in November 1999 and the revised permit was issued on January 3, 2000. The main purpose of the modification was to add smaller “insignificant” fuel-burning sources to the permit with an annual limit on the number of hours the sources could operate. Fuel burning sources include generators, compressors, boilers, and miscellaneous equipment such as pumps. The modification was necessary due to the “potential to emit” nitrogen oxide, one of the criteria pollutants, approaching the 100-ton limit that is the cut off between being designated a minor (Class II) or a major (Class I) source. The potential to emit nitrogen oxides on the NTS is approximately 85 tons. On July 11, 2000, NNSA/NV and BN met with NDEP Bureau of Air Quality personnel in Carson City, Nevada, to discuss compliance with new, more stringent record keeping requirements that went into effect with issuance of the modified air permit.

During 2000, several open burn permits, know as Open Burn Variances, were issued by the state for NTS activities. These permits included 00-24 for training fires, 00-26 for emergency management drills, 00-93 for weapons of mass destruction training exercises, and 00-10 for the Area 27 burn box.

The NTS has a Nevada Hazardous Materials Storage Permit 13-00-0034-X, and the HSC has Permit 13-00-0037-X. These are issued by the state Fire Marshall and are renewed annually when a facility makes a report required by the state's Chemical Catastrophe Prevention Act (NAC 1992).

Table 3.6 contains a summary of the permits issued for NTS activities and for offsite activities that support the NTS.

### **Non-NTS Air Quality Permits**

Five air quality operating permits were active for emission units at the NLVF, and seven permits were active for the RSL. These permits were issued through the Clark County Health District. Annual renewal is contingent upon payment of permit fees. Permits are amended and revised only if the situation under which the permit has been issued changes. For the other non-NTS operations, no air quality permits have been required, or the facilities have been exempted.

During 1998 the Air Pollution Control Division (APCD) of the Clark County Health District began requiring an "Emissions Inventory" submittal for all permitted sources. The 1999 Emissions Inventory was submitted by BN to the APCD on September 6, 2000.

### **CLEAN WATER ACT (CWA)**

Low flows in several NTS sewage lagoons has reduced the efficiency of the lagoons to properly treat effluents. In response, the NNSA/NV has requested funding to install septic tank systems in these areas. The existing Permits for this program are shown in Table 3.5.

Permits issued by the state of Nevada, Division of Health for four sewage hauling trucks for the NTS were renewed in November 2000 and are listed in Table 3.5.

### **SAFE DRINKING WATER ACT (SDWA)**

The NNSA/NV resolved the one remaining finding from a 1999 sanitary survey, a pinhole leak in a storage tank. The leak was successfully repaired in 2000. SDWA Permits are shown in Table 3.4.

The cross-connection control program at the NTS is not well documented, and NNSA/NV was not able to complete a Cross-Connection Control Plan, as required by state regulation. An engineering study has been commissioned and steps have been taken to correct the record-keeping deficiencies.

### **COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA)**

Other than the reporting covered in Section 3.1, there is no formal CERCLA program at the NTS. The FFAO, with the state, may preclude the NTS from being placed on the National Priority List. More of a RCRA approach in remediating environmental problems will be taken under the FFAO.

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## **POLLUTION PREVENTION (P2) AND WASTE MINIMIZATION**

The CY 2000 P2, waste minimization, and recycling efforts for waste generated at the NTS, NLVF, and offsite locations complied with DOE Order 5400.1 requirements for a P2 program. The NNSA/NV P2 program establishes a process to reduce the volume and toxicity of hazardous waste generated at all locations and ensures that the proposed method of treatment and/or disposal minimizes the present and future threat to human health and the environment. It is a priority of NNSA/NV to minimize the generation, release, and/or disposal of pollutants to the environment by implementing cost-effective P2 technologies, practices, and policies in partnership with government and industry. A commitment to P2, waste minimization, and recycling manages operations in such a way as to minimize impact on the environment, improve the safety of operations and energy efficiency, and promote the sustainable use of natural resources. This commitment includes providing adequate administrative and financial materials on a continuing basis to ensure source reduction, recycling, and affirmative procurement goals are achieved.

Chapter 4.0 provides a summary of the P2 program, P2 accomplishments achieved during CY 2000, notable activities that achieved reduction in volume and toxicity of waste, and recycling activities and quantities.

### **SOLID/SANITARY WASTE**

During CY 2000, landfills were operated in Areas 6, 9, and 23. The amount of waste disposed of in each is shown in Table 3.7, and their operating permits are in Table 3.6. Permits for the Area 9, U10c landfill and the Area 6 Hydrocarbon landfill were modified to allow accepting waste with a higher radiation level (consistent with local background levels). This permit modification will reduce the amount of waste from various NTS cleanup/remediation projects which could require low-level waste disposal. The new limits allow for volumetric screening of wastes. Surface radioactivity of the waste is also measured.

The Biannual Solid Waste Disposal Report submitted to NDEP in July 2000 indicated that waste disposed of in the Area 23 Landfill exceeded permit limits (20 tons/day). Investigation revealed a database calculation error. A corrected report was resubmitted in September 2000.

### **RADIATION PROTECTION**

#### **NTS Operations**

Results of monitoring during 2000 indicated full compliance with the radiation exposure guidelines of DOE Order 5400.5, "Radiation Protection of the Public and the Environment", and the Title 40 CFR 141 National Primary Drinking Water Regulations. Onsite air monitoring results for the networks showed average annual concentrations ranging from 0.5 percent of the DOE Order 5400.5 guidelines for HTO in air to 2.5 percent of the guidelines for <sup>239+240</sup>Pu in air. Drinking water supplies on the NTS contained no man-made radioactivity above detection limits, and levels of naturally occurring radioactivity were in compliance with the National Primary Drinking Water Regulation.

Offsite monitoring in the vicinity of the NTS confirmed that emissions of radioactivity from the NTS did not exceed 2 percent of the guideline set forth in Title 40 CFR 61, Subpart H (CFR 1989).

## Non-NTS BN Operations

Results of environmental monitoring at the off-NTS operations performing radiological work during 2000 indicate full compliance with the radiation exposure guidelines of DOE Order 5400.5. With one exception, no radioactive or nonradioactive surface water/liquid discharges, subsurface discharges through leaching, leaking, or seepage into the soil column, well disposal, or burial occurred at any of the BN operations. The exception was the NLVF Building A-1 radiation source well in which water was found with concentrations of tritium that were above the drinking water standard of 20,000 pCi/L. From a review of geologic reports, historical aerial photos, Geoprobe borings, installation of temporary monitoring wells, and water analyses, the tritium was concluded to be from past local operations and was not found in ground water surrounding the facility.

Use of radioactive materials is primarily limited to sealed sources. Facilities, which use radioactive sources or radiation producing equipment, with the potential to expose the general population or non-project personnel to direct radiation, are the Atlas NLVF A-1 Source Range, Building C-3 (x-ray radiography operation), and the STL, during the operation of the sealed tube neutron generator or during operation of the Febetron. Sealed sources are tested every six months to ensure there is no leakage of radioactive material. Operation of any radiation generating devices is controlled by BN procedures. At least two thermoluminescent dosimeters (TLDs) are placed at the fence line of these facilities or where non-project personnel could be for limited periods and are exchanged quarterly. The TLD results were consistent with previous data indicating no exposures to the public from any of the monitored facilities.

## ENVIRONMENTAL COMPLIANCE AUDITS

There were nine Environmental Compliance Management Assessments of specific operations, facilities, or project for CY 2000. These assessments focused, in most cases, on one or two major areas of Environmental Compliance, e.g. hazardous waste or universal waste management.

## OCCURRENCE REPORTING

Occurrences are environmental, health, and/or safety-related incidents, which are reported in several categories in accordance with the requirements of DOE Order O 232.1A, "Occurrence Reporting and Processing of Operations Information," (DOE 1997a). The eight reportable environmental occurrences for 2000 on NTS facilities appear in Table 3.8.

## LEGAL ACTIONS

No legal actions were filed against NNSA/NV during 2000.

## 3.4 PERMITS FOR NTS OPERATIONS

Federal and state permits have been issued to NNSA/NV and to BN (Table 3.6). These permits are required for the conduct of such NNSA/NV activities as hazardous and solid waste storage and disposal for certain ecological studies, tests at the HSC, and for operations involving endangered species. All BN non-NTS facilities are located in existing metropolitan areas and are not subject to the Endangered Species Act. Annual reports associated with these permits are filed as stipulated in each permit.

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The only RCRA permit in use at the NTS is the Hazardous Waste Management Permit NEV HW009. With this permit, hazardous waste generated at the NTS can be stored at the Area 5 HWSU for up to one year. It is then shipped offsite for treatment and/or disposal. The permit also allows for the thermal treatment (disposal) of explosives at the Area 11 Explosive Ordnance Disposal Unit.

The NLVF has a Waste Generator number of 03990265X that covers generation and a 90-day accumulation of hazardous waste. The waste is shipped offsite for final treatment and/or disposal.

NNSA/NV activities on the NTS comply with all terms and conditions of a desert tortoise incidental take authorization issued in a Biological Opinion (File Number 1-5-96-F-33) from the USFWS.

The Nevada Division of Wildlife issued a scientific collection permit, S20571 to BN that allows collection of wildlife samples.

Table 3.1 Active Air Quality Permits - 2000

Permit	Description	Expiration Date	Annual Reporting
<i>NTS Air Quality Permits</i>			
AP9711-0549		02/07/2002	February 1
Area 1 Facilities	Shaker Plant Circuit Rotary Dryer Circuit Wet Aggregate Plant Concrete Batch Plant Sandbag Facility Cedar Rapids Screen Shotcrete Hopper/Conveyor Cambilt Conveyor Commander Crusher Kolberg Screen Plant		
Area 3 Facilities	Mud Plant		
Area 5 Facilities	Navy Thermal Treatment Unit		
Area 6 Facilities	Cementing Equip. (Silos) Decontamination Facility Boiler Diesel Fuel Tank Gasoline Fuel Tank Portable Field Bins Portable Stemming Systems 1 & 2 Diesel Engines (11) Two-Part Epoxy Batch Plant		
Area 12 Facilities	Concrete Batch Plant		
Area 23 Facilities	Building 753 Boiler Diesel Fuel Tank Gasoline Fuel Tank NTS Surface Disturbances Incinerator (Wackenhut)		
AP9711-0556	Area 5 HSC	10/20/2002	February 1
AP9711-0814	Area 11 TaDD Facility	07/21/2003	February 1
AP9711-0785	UGTA Surface Disturbance Permit	03/20/2003	February 1
00-24	Burn Variance, NTS (Training Fires)	03/09/2001	None
00-26	Burn Variance, NTS (EM Drill)	03/21/2001	None
<i>Non-BN Operated NTS Air Quality Permits</i>			
00-10	Burn Variance Area 27 (LLNL)	02/05/2001	None
<i>BN Operated Off-NTS Air Quality Permits (TTR and NAFR)</i>			
AP9711-0785	UGTA Class II Air Quality Permit	04/16/04	February 1

Table 3.2 Active Air Quality Permits for Non-NTS Facilities - 2000

Permit	Description	Expiration Date	Annual Reporting
<i>Remote Sensing Laboratory</i>			
A0034811	Excimer Laser, Lumonics, EX-700	None	June 1
A34801	Boiler, Columbia, W1-180	None	March 1
A34802	Boiler, Columbia, WL-90	None	March 1
A34803	Heater, No. 2 Natl. BD	None	March 1
A34804(a)	Emergency Fire Control Pump Engine	None	June 1
A34804(b)	Emergency Generator, Cummins	None	June 1
A34805	Spray Paint Booth	None	June 1
<i>North Las Vegas Facility</i>			
A38701	Spray Paint Booth (A-16)	None	June 1
A38703	Emergency Generators (C-1)	None	June 1
A06503	Emergency Generator (A-1/A-5/B-2)	None	June 1
A06505	Aluminum Sander (A-16)	None	June 1
A06507	Trinco Dry Blaster (A-1)	None	June 1

Table 3.3 Sewage Discharge Permits - 2000

Permit No./Location	Areas	Expiration Date	Reporting Required
<i>NTS Permits</i>			
GNEV93001	NTS General Permit	12/07/2004	Quarterly
NY-17-05704	X Tunnel Collection System	09/30/2001	Quarterly
<i>Off-NTS Permits</i>			
North Las Vegas Facility VEH-112	Class II Wastewater Contribution Permit	12/31/2001	Annually
Special Technologies Laboratory All-204/Santa Barbara, California		12/31/2001	
III-331/Santa Barbara, California		12/31/2001	

Table 3.4 NTS Drinking Water System Permits - 2000

<b>Permit No.</b>	<b>Area(s)</b>	<b>Expiration Date</b>	<b>Reporting Required</b>
NY-5024-12CNT	Area 1	09/30/2001	None
NY-4099-12C	Area 2 & 12	09/30/2001	None
NY-360-12C	Area 5, 6, 22, 23	09/30/2001	None
NY-4098-12CNT	Area 25	09/30/2001	None
NY-835-12H	Sitewide Truck	09/30/2001	None
NY-836-12H	Sitewide Truck	09/30/2001	None
NY-841-12H	Sitewide Truck	09/30/2001	None

Table 3.5 Permits for NTS Septic Waste Hauling Trucks - 2000

<b>Permit Number</b>	<b>Vehicle Identification Number</b>	<b>Expiration Date</b>
NY-17-03313	Septic Tank Pumper E-105293	11/30/2001
NY-17-03315	Septic Tank Pumper E-105919	11/30/2001
NY-17-03317	Septic Tank Pumper E-105918	11/30/2001
NY-17-03318	Septic Tank Pumping Subcontractor	11/30/2001
NY-1076	Septic System Area 6 (Art Hangar)	None
NY-1077	Septic System, Area 27	None
NY-1078	Septic System, Area 5 (Bldg 5-8)	None
NY-1079	Septic System, Area 12 (U12g Tunnel)	None

Table 3.6 Permits Required for NTS Operations - 2000

<i>EPA Generator ID</i>		
NV3890090001	NTS Activities	
<i>NTS Permits</i>		
<b>Permit No.</b>	<b>Areas</b>	<b>Expiration Date</b>
NEV HW009	NTS Hazardous Waste Management (RCRA)	05/01/2000
SW 13 097 02	Area 6 Hydrocarbon Disposal Site	Post Closure
SW 13 097 03	Area 9 U-10c Solid Waste Disposal Site	Post Closure
SW 13 097 04	Area 23 Solid Waste Disposal Site	Post Closure
13-00-0034-X	NTS Hazardous Materials	02/29/2000
13-00-0037-X	HSC Hazardous Materials	02/29/2000
S20571	Scientific Collection of Wildlife Samples	12/31/2000
MB0037277-0	USFWS -- Desert Tortoise Incidental Take Authorization	12/31/2000
<i>Off-NTS Permits</i>		
03-00-0265-X	North Las Vegas Facility Hazardous Materials	02/29/2000
03-00-0266-X	Remote Sensing Laboratory Hazardous Materials	02/29/2000
<i>EPA Generator ID Numbers</i>		
NVD097868731	North Las Vegas Facility Activities, NV	
CAL00177640	Santa Barbara Operations, CA	
CAL00177642	Santa Barbara Operations, CA	
CAL00197065	Livermore Operations, CA	
NMD986670370	Los Alamos Operations, NM	

Table 3.7 Quantity of Wastes Disposed of in Solid Landfills - 2000

<i>Quantity (in tons)</i>			
<b>Month</b>	<b>Area 9</b>	<b>Area 23</b>	<b>Area 6</b>
January - March	1,136	547	132
April - June	908	440	35
July - September	2,295	822	1,312
October - December	<u>2,115</u>	<u>288</u>	<u>636</u>
<b>Totals</b>	<b>6,454</b>	<b>2,097</b>	<b>2,115</b>

Table 3.8 Off-Normal Occurrences at NTS Facilities - 2000

<b>Date</b>	<b>Report Number</b>	<b>Description</b>	<b>Status</b>
01/11/2000	NVOO-BNLV-NTS 2000-0001	Approximately 10 gallons of hydraulic oil leaked from an earth grader at the Area 23 landfill.	Open
03/09/2000	NVOO-BNLV-NTS 2000-0006	A screening survey at Area 25 EMAD found unexpected elevated radiation readings in an uncontrolled area.	Closed
03/14/2000	NVOO-BNLV-NTS 2000-0007	A screening survey at Area 25 EMAD found unexpected elevated radiation readings in an uncontrolled area.	Closed
05/11/2000	NVOO-BNLV-NTS 2000-0012	A screening survey at Area 25 EMAD found unexpected elevated radiation readings in an uncontrolled area.	Closed
08/02/2000	NVOO-BNLV-NTS 2000-0016	Failure to submit Exception Report for non-return of hazardous waste manifest.	Open
08/02/2000	NVOO-BNLV-NTS 2000-0017	Heating oil spill while filling tank at Area 23, Building 536, resulted in state notification.	Open
09/14/2000	NVOO-BNLV-NTS 2000-0022	Historic heating oil spill at Area 23, Building 156.	Closed
10/25/2000	NVOO-BNLV-NTS 2000-0027	Non PCB transformer oil leak at Area 2, Building 2C-20.	Open



Frenchman Flat Under Water (No Date Provided)