

**Storm Water Pollution Prevention Plan
for the
North Las Vegas Facility**

**prepared
in accordance with**

**Nevada Division of Environmental Protection
Permit No. NVR050000
Stormwater General Permit**

DRAFT

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STORM WATER POLLUTION PREVENTION PLAN

North Las Vegas Facility

1.0 INTRODUCTION

Storm Water General Permit No. NVR050000 ([Attachment 1](#)), issued on April 11, 2003 by the Nevada Division of Environmental Protection (NDEP), requires storm water pollution prevention plans for industrial facilities which have storm water discharges. Plans must be in place before filing a Notice of Intent for permit coverage. The storm water general permit is for a 5-year period and will expire April 2008. This plan identifies potential sources of pollution or contamination at the North Las Vegas Facility (NLVF) and actions taken to prevent, reduce, mitigate, or control the pollution of storm water.

This Storm Water Pollution Prevention Plan (SWPPP) is designed with the goal of eliminating, minimizing, or mitigating the amount of pollution in storm water discharged from the NLVF. This SWPPP supports the NDEP General Permit, and is independent of storm water pollution prevention plans required for storm water discharges involving construction activities at the NLVF.

Permit coverage under the NDEP General Permit for Industrial Activities at the NLVF is based on Category Eleven: Light Industry. This category is descriptive of activities at the Facility; the actual exposures to storm water for this category are minimal if it exists at all. Best management practices (BMPs) are employed to address secondary operations at the site that could potentially affect storm water quality. These practices when put into place are designed to reduce and when possible eliminate any exposure of operational activities to storm water.

2.0 FACILITY DESCRIPTION

2.1 Facility Identification

Permittee: National Nuclear Security Administration/Nevada Site Office

Mailing Address: P.O. Box 98518, Las Vegas, NV 89193

Facility Name: North Las Vegas Facility

Facility Address: 2621 Losee Road, North Las Vegas, NV 89030

Contact: Don Seaborg, Asst. Manager for Safety Programs
Environment, Safety and Health Division
(702) 295-4752

Responsible Person: Linda M. Cohn
Environmental Protection Specialist
(702) 295-0077

2.2 Site Characteristics

The NLVF has an extensive storm drainage system. This system consists of a retention basin, a network of slotted drains, storm drains consisting of reinforced concrete pipe, directed sheet flow and man made channels. Storm water runoff flows to the retention basin and the City of North Las Vegas' storm water collection system via these different drainage methods. No untreated industrial effluents are discharged

directly to any drainage or the retention basin at the NLVF. Most of the industrial operations performed at NLVF are indoors and are protected from exposure to precipitation or storm water runoff.

A Complex

This complex consists of 15 buildings. These buildings house areas for record storage, equipment storage, equipment testing/repair, laboratories (laser, X-ray calibration, and instrument calibration), radioactive source storage, warehouse operations, machine shops, and offices. This complex will be considered drainage area 01. This drainage area consists of two outfalls. Outfall 001 is located where the drainage channel on the north side of the property empties into the gutter of North Fifth Street. Outfall 002 is located on the southeast corner of the A Complex and enters the municipal storm sewer system directly.

B Complex

This complex consists of 4 buildings. These buildings house areas for mail room operations, steam cleaning operations, maintenance activities, soil/geotechnical testing laboratory, storage, and offices. This complex will be considered drainage area 02. This drainage area consists of two outfalls. Outfall 003 is located at the corner of Atlas Drive and Losee Road. Outfall 004 is located in the northeast corner of the B-3 parking lot.

C Complex

This complex consists of 5 buildings. These buildings house areas for telecommunications support, laboratories (electronic, diagnostic testing, and photo), radio communication receiver/transmitter, medical surveillance, computer support, and offices. This complex will be considered drainage area 03. All water from this drainage flows into the retention basin and eventually flows offsite through Outfall 005. This outfall is located just south of the corner of Energy Way and Losee Road.

Nevada Support Facility (NSF)

This building houses security support, cafeteria operations, and offices. This complex will be considered drainage area 04. All water from this drainage flows into the retention basin and eventually flows offsite through Outfall 005. There is a drainage channel located south of this facility. The start of the channel is approximately 150 feet east of Commerce Street. The channel flows on the site for approximately 1200 feet before turning south and leaving the property. This channel drains Commerce Street, the neighborhood located west of the facility, and the business located south of the facility. There is not any storm water added to this channel by the facility.

3.0 NON-STORM WATER DISCHARGES

All non-storm water discharges that qualify for permit coverage are identified in this plan. A survey of potential non-storm water sources is conducted and documented at a minimum of once per calendar year. The on-site storm sewer system is screened for dry weather flows at a minimum of once per quarter. Procedures and practices are evaluated and implemented to eliminate any non-storm water sources that are discovered and that are not allowed under the general permit. Unless non-storm water sources are authorized by NDEP, they may not be combined with storm water discharges and are not allowed to enter the storm sewer system.

3.1 Allowable Non-Storm Water Discharges

The provisions of the NDEP General Permit prohibit most non-storm water discharges or the commingling of these discharges with storm water. There are a few non-storm water discharges that are allowable under the general permit and this plan:

- discharges from fire fighting activities
- routine fire hydrant flushings
- potable water sources, including waterline flushings
- routine external building washdown (without detergents or other known contaminants)
- pavement washwaters where spills/leaks of hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used
- air conditioning condensate
- uncontaminated groundwater or spring water
- foundation or footing drains where flows are not contaminated with process materials such as solvents
- water used to wash vehicles where detergents are not used
- water used to control dust.

Other non-storm water discharges that are similar to those listed above will be evaluated on a case-by-case basis.

3.2 Illicit Non-Storm Water Discharges

The following non-storm water discharges are considered illicit and are not allowed under the general permit and this plan:

- gray-water discharges
- used oils, anti-freeze, fuels, and spent solvents
- discharges containing inks or paints
- untreated domestic sewage
- on-site spills
- contents from drip pans
- washwaters/rinsewaters from the rinsing of drums, tanks, or similar containers
- washwaters from vehicle washing
- washwaters from material handling & processing areas
- discharges or storm water overflows from decontamination facilities or pads
- discharges from cross-connected storm sewers and the sanitary sewer

3.3 Non-Storm Water Discharge Certification

Members of the Storm Water Pollution Prevention Team conducted a walk-down of the facility to evaluate non-storm water discharges throughout the facility. This evaluation was conducted in December 2006 and consisted of a screening for any discharges during dry conditions. No non-storm water discharges were found.

4.0 STORM WATER POLLUTION PREVENTION TEAM

The objectives of the Storm Water Pollution Prevention Team (SWPPT) are fulfilled by the efforts of several organizations. The Environmental Services Department (ESD), Solid Waste Operations (SWO), the Maintenance Department, and the NLV Facility Manager comprise the SWPPT. As the Storm Water Pollution Prevention Coordinator, D. Rudolph of ESD is the point of contact for all storm water pollution prevention issues. The National Nuclear Security Administration, Nevada Site Office, provides oversight to the operating contractor, National Security Technologies (NSTec), on storm water pollution prevention issues. The SWPPT meets semi-annually to discuss and/or evaluate storm water issues. The SWPPT consists of the following:

STORM WATER POLLUTION PREVENTION TEAM			
Name	Dept.	Ph (pg)	Responsibilities
David Rudolph	Environmental Services	295-1224 794-6326	Coordinator, responsible for developing and maintaining the SWPPP; conducting storm water site inspections; ensuring storm water monitoring is performed; reviewing and reporting storm water data; investigating dry-weather flows, evaluating measures to improve storm water quality; filing NOIs/NOTs; maintaining and revising the SPCC.
Carl Soong	Environmental Services	295-6272 794-1808	Responsible for developing and maintaining the SWPPP; conducting storm water site inspections; ensuring storm water monitoring is performed; reviewing & reporting storm water data; investigating dry-weather flows, evaluating measures to improve storm water quality; filing NOIs/NOTs.
Greg Schmett	Solid Waste Operations	295-4870 794-6889	Responsible for conducting storm water site inspections; investigating dry-weather flows.
Renee Rowe	NLVF Facility Manager	295-0673 794-5646	Responsible for conducting storm water site inspections; investigating dry-weather flows.
Dave Harwood	Maintenance	295-5040	Responsible for ensuring storm water monitoring is performed; responding to and performing clean-up of spills and notifying ESD.

5.0 POTENTIAL STORM WATER POLLUTANT SOURCES

5.1 Inventory of Exposed Materials

Materials that are handled, stored, processed, treated, or disposed of in a manner that allows or could potentially allow exposure to storm water at NLVF include the sources listed in Attachment 2 of this plan. Each potential source listed is shown on a site map in Attachment 3 of this plan.

A Complex

All operations conducted at this complex with the exception of the machine shop occur indoors and pose no risk to storm water. The machine shop has a cut off saw, sand blasting equipment, raw material storage, and metals salvage bins located outside the building that could pose a risk to storm water. Good housekeeping measures will be implemented to offset the potential for risk. The machine shop also has new and used oil stored outside the building that could pose a risk to storm water. The oil drums are kept in good shape and on secondary containment when opened and in use. New product does require being

stored on secondary containment. There are five dewatering wells located within this complex that are being used to control rising groundwater under Building A-1. The discharge from these wells is piped along the perimeter of the facility and is discharged through Outfall 002. This discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) Permit issued by the Nevada Department of Environmental Protection. This permit is renewed every 5 years and the current permit is included in Attachment 4.

B Complex

All operations conducted at this complex with the exception of steam cleaning operations occur indoors and pose no risk to storm water. There is a designated pad where the steam cleaning operations occur. The wastewater discharged from this operation runs through an oil/water separator and is subsequently discharged to the sewer so there is no risk to storm water. Maintenance equipment is located on exterior parking areas and any release would pose a risk to storm water.

C Complex

All operations occur indoors and pose no risk to storm water.

Nevada Support Facility (NSF)

All operations occur indoors and pose no risk to storm water.

5.2 Spills and Leaks

No spills of reportable quantities based on CERCLA definitions have occurred at the NLVF within the last 3 years. A list of recent spills or releases at the NLVF may be found in Attachment 6. This list is a compilation of spills that have occurred and is updated and reviewed quarterly.

5.3 Sampling Data

When storm water data are collected, results are summarized and discussed each year in the *Nevada Test Site Environmental Report*.

6.0 POLLUTION PREVENTION MEASURES AND CONTROLS

6.1 Good Housekeeping Measures

Good housekeeping practices at the NLVF include keeping work areas clean and orderly; removing wastes daily; controlling and limiting the use of chemicals, flammables, and combustibles; and inspecting assigned areas frequently. A general lack of good housekeeping can result in generating more waste than necessary and increases the potential for contamination of storm water. Well-maintained areas reduce the risk of pollutants mixing with storm water. Activities are performed indoors, when possible, or the activities are covered so that the potential for storm water exposure is reduced or eliminated.

6.2 Spill Prevention and Response

NLVF has a *Spill Prevention, Control, and Countermeasures Plan (SPCC)* in place that addresses the response to spills and releases of oils and hazardous materials. NSTec Company Directive, *Spill Prevention, Control, and Reporting (CD-0442.009)* is incorporated here by reference and can be found as [Attachment 5](#) of this plan. When the procedure is revised or superseded, the revised or replacement document will again be incorporated into this plan by reference and the revised document placed on file.

All spills or releases of hazardous materials are recorded by the Environmental Services Department. When a release does occur, spills are cleaned up and the waste is disposed of according to applicable requirements. The Maintenance Department maintains a variety of equipment to respond to spills and releases.

6.3 Sediment and Erosion Control Measures

Sediment and erosion control measures are utilized at the NLVF to reduce or eliminate areas that have ongoing erosion or the potential for soil erosion. Controls used include vegetative cover and the use of structural controls including, but not limited to, the following:

- Silt fence - silt fencing is used as a temporary means of capturing sediment. (Used during on site construction)
- Rock filter dams - rock filter dams (or check dams) are used as both temporary and permanent velocity dissipation features to slow down storm water allowing sediment to settle-out. (Areas immediately surrounding the retention basin)
- Gabions - gabions are used as permanent velocity dissipation features to slow down storm water allowing sediment to settle-out. (sloped areas adjacent to NSF and C-1 buildings)
- Soil stabilization blanket - soil stabilization blanket or soil retention blanket is a temporary control used to reduce erosion and at the same time accelerate the establishment of vegetative cover. (North side of property line adjacent neighboring building)

Sediment and erosion control measures are also utilized whenever routine maintenance is performed that involves disturbing the ground to the point of removing vegetation. These areas are to be re-seeded and stabilized as soon as work is completed in order to re-establish vegetative cover.

6.4 Maintenance Program for Structural Controls

Preventive maintenance for storm water management involves the regular inspections conducted by members of the Storm Water Pollution Prevention Team. Inspections include evaluating equipment used to monitor storm water and inspecting structural controls such as rock filter dams. Inspections are conducted quarterly on monitoring equipment and at least semi-annually on the structural controls, depending on seasonal weather patterns. Maintenance is performed on the structural controls based upon the inspection results of the Storm Water Pollution Prevention Team. When maintenance is performed the estimated volume of solids removed from the structural controls is documented on the inspection records. Inspection records can be found in Attachment 7 of this plan.

6.5 Best Management Practices

Numerous BMPs are utilized to reduce the discharge and potential discharge of pollutants in storm water. These include a wide range of practices that prevent or reduce the likelihood of pollution. These practices include the following:

- Keep areas exposed to storm water clean and orderly, removing waste as necessary, and managing the use of hazardous materials in a responsible manner.
- Vehicle, equipment, and parts cleaning is performed on the steam pad so all discharge is processed through the sand/oil separator.

- Vehicle and equipment maintenance is performed indoors when possible using drip pans when necessary; used fluids are containerized and disposed of properly.
- Hazardous materials are stored indoors and protected from storm water when possible. If this is not possible, hazardous materials are covered or secondary containment is utilized.
- Rinsate from tanks/containers formerly containing hazardous materials is not discharged outdoors. Rinsate from these operations is containerized and disposed of properly.
- Prevent scrap bins from leaking contaminants (e.g., machining oils).
- Dry clean-up methods are used for spills (absorbents).
- Secondary containment is provided for above-ground fuel tanks.

6.6 Employee Training and Education

Storm water pollution prevention training will be provided annually to all employees who are responsible for activities that could potentially affect storm water quality. The level of training is dependent upon the extent of the employee's contact with the potentially pollutant materials. Where appropriate, training will include proper materials management, hazard communication, spill prevention methods, spill control response, spill reporting procedures, good housekeeping practices, and management of wastes. Training is required for new hires and personnel transferring to new positions. "*Storm Water Pollution Prevention Training for the North Las Vegas Facility,*" is a series of informative slides presented to employees that work in areas that have the potential to pollute storm water.

Only employees that are directly responsible for activities that could potentially affect storm water quality are educated on the basic goals of the SWPPP and are notified of the POC for storm water issues at the facility. The Training Department keeps all records of training received by NSTec employees.

6.7 Periodic Inspections

Members of the SWPPT conduct a variety of inspections to confirm that pollutants do not enter the storm sewer system at the facility. These inspections include the following quarterly examinations:

- Vehicle and equipment maintenance areas
- Material storage areas
- Loading and unloading areas
- Exposed drums/tanks
- Dry weather inspections (daylight hours during dry conditions)
- Above-ground storage tanks
- Scrap bins
- Storm water outfalls

These inspections increase worker awareness and responsibility for storm water pollution prevention. Follow-up is performed on all findings as a result of inspections. Records of inspections are maintained by ESD and are presented in Attachment 7 of this plan.

6.8 Storm Water Monitoring

6.8.1 Types of Monitoring

Storm water monitoring is performed at selected outfalls to assess storm water quality and evaluate the effectiveness of the Plant's SWPPP. Monitoring under the general permit requires visual monitoring.

Visual sampling at storm water outfalls is performed quarterly at all storm water outfalls. All storm water samples are grab samples taken manually or obtained using automated sampling equipment.

6.8.2 Reporting

Quarterly visual monitoring results are presented in Attachment 8 of this plan.

6.9 Records

Copies of spill records, records of unauthorized discharges, storm water monitoring, and required inspections are maintained by ESD. Records will be maintained for a minimum of 3 years after the general permit expires.

7.0 MANAGEMENT OF RUN-OFF

7.1 Description

Control measures for storm water run-off are used. Consideration is given to traditional storm water management practices and options for controlling storm water run-off, e.g., diversion, infiltration, and reuse. All run-off management techniques are adopted for effective reduction of pollutants in storm water discharges from the facility.

Storm water falling outside of secondary containment structures receives no treatment. Storm water falling into secondary containment structures is allowed to evaporate in place or is pumped dry if necessary.

7.2 Structural Controls

Other controls used include velocity dissipation controls and a retention basin. The velocity dissipation devices are used to reduce erosion. The retention basin is used to allow sediment the opportunity to settle out before the water is released offsite.

8.0 COMPREHENSIVE SITE COMPLIANCE EVALUATION

A site-wide inspection will be performed by the SWPPT at least once per year to evaluate the effectiveness of this plan. The evaluation will include as a minimum the following:

- Inspections of housekeeping practices at the facility
- Evaluation of structural controls
- Identification of non-storm water sources
- Spill prevention procedures and equipment
- Areas identified where materials could potentially be exposed to storm water
- A review of all records required by the MSGP to insure they are being maintained
- A review of quarterly inspections and monitoring
- A review of the SWPPP
- An evaluation of any incidents of non-compliance with the MSGP

A site compliance evaluation report shall be prepared following each annual site compliance evaluation. Copies of the evaluation report will be kept with the SWPPP (Attachment 9). Any incidents of non-

conformance with the plan found shall be corrected no later than 12 weeks following the completion of the evaluation. If necessary, the SWPPP shall be revised to include and address the findings from the evaluations within 30 days following completion of the evaluation.

9.0 CERTIFICATION

This facility is owned and controlled by the U.S. Government. Operations conducted at this facility are for the purpose of carrying out the responsibilities of the National Nuclear Security Administration (NNSA). The day-to-day management of operations at this facility are conducted for the NNSA by National Security Technologies (NSTec), under a management and operating contract.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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