

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

August 22, 2022

Timothy J. Davis, Chief, Environmental Office NASA White Sands Test Facility P.O. Box 20 Las Cruces, NM 88004

RE:

Draft Discharge Permit Renewal and Modification, DP-1255, NASA White Sands Test Facility, Plume Front Treatment System (PFTS) and Mid-plume Interception and Treatment System (MPITS)

Dear Timothy J. Davis:

The New Mexico Environment Department (NMED) hereby provides notice to you of the proposed approval of Ground Water Discharge Permit Renewal and Modification, DP-1255, (copy enclosed), pursuant to Subsection H of 20.6.2.3108 NMAC. NMED will publish notice of the availability of the draft Discharge Permit in the near future for public review and comment and will forward a copy of that notice to you.

Prior to making a final ruling on the proposed Discharge Permit, NMED will allow 30 days from the date the public notice is published in the newspaper for any interested party, including the Discharge Permit applicant, i.e., yourself, to submit written comments and/or a request a public hearing. A hearing request shall set forth the reasons why a hearing is requested. NMED will hold a hearing in response to a timely hearing request if the NMED Secretary determines there is substantial public interest in the proposed Discharge Permit.

Please review the enclosed draft Discharge Permit carefully. Please be aware that this Discharge Permit may contain conditions that require the permittee to implement operational, monitoring or closure actions by a specified deadline.

Please submit written comments or a request for hearing to my attention at the address above or via email to melanie.sandoval2@state.nm.us. If NMED does not receive written comments or a request for hearing during the public comment period, the draft Discharge Permit will become final.

Timothy J. Davis August 22, 2022 Page 2 of 2

Thank you for your cooperation during the review process. Feel free to contact me with any questions at (505) 660-7892.

Sincerely,

Melanie Sandoval Industrial Waste Team Leader

Encl: Draft Discharge Permit Renewal and Modification, DP-1255

cc: Michael Zigmond, Environmental Project Manager via email at michael.j.zigmond@nasa.gov



NEW MEXICO ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau





Draft: August 22, 2022

GROUND WATER QUALITY BUREAU DISCHARGE PERMIT Issued under 20.6.2 NMAC

Facility Name:	NASA White Sands Test Facility, Plume Front Treatment
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System (PFTS) and Mid-plume Interception and Treatment

System (MPITS)

Discharge Permit Number: DP-1255

Facility Location: 12600 NASA Road

Las Cruces, NM 88012

County: Doña Ana

Permittee: NASA White Sands Test Facility

Mailing Address: P.O. Box 20

Las Cruces, NM 88004

Facility Contact: Timothy J. Davis, Chief, Environmental Office

Telephone Number/Email: (575) 524-5024 / timothy.j.davis@nasa.gov

Permitting Action: Renewal and Modification

Permit Issuance Date: DATE
Permit Expiration Date: DATE

NMED Permit Contact: Melanie Sandoval

Telephone Number/Email: (505) 660-7892 / Melanie.Sandoval2@state.nm.us

JUSTIN D. BALL Date

Chief, Ground Water Quality Bureau
New Mexico Environment Department

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ATTACHMENTS

Discharge Permit Summary

NASA White Sands Test Facility, DP-1255

DRAFT: DATE

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this groundwater discharge permit Renewal and Modification (Discharge Permit or DP-1255) to the NASA White Sands Test Facility (Permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Ground and Surface Water Protection Regulations, 20.6.2 NMAC.

NMED's purpose in issuing this Discharge Permit, and in imposing the requirements and conditions specified herein, is to control the discharge of water contaminants from NASA White Sands Test Facility, Plume Front Treatment System (PFTS) and Mid-plume Interception and Treatment System (MPITS) (Facility) in order to protect groundwater and those segments of surface water gaining from groundwater inflow for present and potential future use as domestic and agricultural water supply and other uses, and to protect public health. It is NMED's determination in issuing this Discharge Permit that the Permittee has met the requirements of Subsection C of 20.6.2.3109 NMAC. The Permittee is responsible for complying with the terms and conditions of this Discharge Permit pursuant to Section 20.6.2.3104 NMAC; failure to do so may result in enforcement action by NMED (20.6.2.1220 NMAC).

Described below are the activities that produce the discharge, the location of the discharge, and the quantity, quality, and flow characteristics.

The Facility is undergoing cleanup under the authority of the Hazardous Waste Act (Permit NM8800019434). The Facility discharges up to 1,881,000 gallons per day (gpd) of backflush water and remediated effluent from contaminated groundwater from the Plume Front and Mid-Plume groundwater remediation systems. The Facility pumps contaminated groundwater from extraction wells, treats the groundwater by the associated remediation system, and discharges a majority of the remediated groundwater into four Class V Underground Injection Control (UIC) wells. The Facility discharges up to 864,000 gpd of remediated groundwater from the total permitted discharge volume to an infiltration basin. The Facility may discharge on a quarterly basis, up to 10 million gallons of the permitted total discharge volume generated from backflushing the injection wells and pipeline air purge operations to the infiltration basin or onto the ground for surface disposal. Backflush water consists of treated and native uncontaminated groundwater.

In the Plume Front treatment system (PFTS), the Facility extracts contaminated groundwater from the aquifer using six Plume Front extraction wells (PFE-1, PFE-2, PFE-3, PFE-4A, PFE-5, and PFE-7) and pumps the contaminated groundwater to the PFTS at White Sands Testing Facility (WSTF) Building 650 for treatment. After passing through a static mixer, the influent stream is split and routed through two multiple sieve-tray air strippers. The air strippers reduce the concentrations of volatile organic compounds (VOCs) including trichloroethene (TCE), tetrachloroethene (PCE), and chloroform to levels below applicable groundwater standards. The Facility recombines and routes water flow through a cartridge filter system consisting of a pair of

NASA White Sands Test Facility, DP-1255

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cylindrical filter vessels configured such that a single vessel is in use while a second vessel is isolated and ready for use when the first becomes spent. After filtration, water flows through the ultraviolet (UV) reactor, which uses UV light to reduce the N-Nitrosodimethylamine (NDMA) concentration below the applicable groundwater standard. Following treatment, groundwater effluent conveys to the injection manifold building at WSTF Building 651. There the Facility distributes flow through the manifold system to the four Plume Front injection wells (PFI-1, PFI-2, PFI-3, and PFI-4) located downgradient of the groundwater contaminant plume.

In the Mid Plume treatment system (MPTS), the Facility extracts contaminated groundwater from the aquifer using seven Mid-plume extraction wells (MPE-1, MPE-3, MPE-4, MPE-8, MPE-9, MPE-10, and MPE-11). Water conveys to the MPTS at WSTF Building 655, where it enters a surge tank. The Facility pumps untreated groundwater from the surge tank through a filter vessel prior to introduction into a multiple sieve-tray air stripper. The air stripper reduces the concentrations of TCE, PCE, and chloroform. From the air stripper, the Facility pumps groundwater through a second filter vessel before entering the UV reactor, where UV light reduces NDMA concentration below the applicable groundwater treatment standard.

In addition to contaminated groundwater extracted from the aquifer, the MPTS treats investigation derived waste (IDW). IDW consists of groundwater produced during the installation, development, sampling, and rehabilitation of groundwater monitoring and remediation wells, as well as potentially contaminated water generated during the decontamination of equipment used in various environmental investigations at WSTF. The Facility stores IDW in tanks at the MPTS for introduction into the treatment system or introduces IDW directly into the treatment system. Treated effluent conveys to the infiltration basin, which consists of two cells, each sized for a flow rate of 300 gallons per minute (gpm, 150% of the maximum design flow of the MPTS). During routine operations, one cell of the infiltration basin is in use while the other cell is on standby. When the operational cell requires maintenance, the effluent flow is diverted to the reserve cell. If required to support PFTS operations, both cells can be used to accommodate up to 600 gpm, allowing a portion of the PFTS discharge to be routed to the infiltration basin.

The modification in this permit renewal consists of increasing the discharge volume for the infiltration basins to 864,000 gpd of effluent from the WSTF MPITS and PFTS, combined. Several projects are also proposed for both systems that will not significantly change the quality of the discharge under this permit but are identified in the application. These projects include the addition of extraction wells MPE-3 and MPE-4 to the MPITS, a solids separation pre-treatment unit at the MPITS, an influent equalization tank at the PFTS, and an equalization tank for PFTS treated effluent.

The discharge may contain water contaminants or toxic pollutants elevated above the standards of Section 20.6.2.3103 NMAC and is not subject to the exemption at Subsection 20.6.2.3105.A NMAC.

The Facility is located at 12600 NASA Road, approximately six miles north and three miles west of Organ, in Section 5, T21S, R3E, and Section 33, T20S, R3E, in Doña Ana County. A discharge at the Facility is most likely to affect groundwater at a depth of approximately 434 feet and having a pre-discharge total dissolved solids (TDS) concentration of approximately 820 milligrams per liter.

NMED issued the original Discharge Permit to the Permittee on March 10, 2000, and subsequently renewed and modified the Permit on September 26, 2011, amended the Permit on March 13, 2015, and renewed and modified the Permit on July 14, 2017. The application (i.e., discharge plan) associated with this Discharge Permit consists of the materials submitted by the Permittee dated January 13, 2022, and materials contained in the administrative record prior to issuance of this Discharge Permit.

The Permittee shall manage the discharge in accordance with all conditions and requirements of this Discharge Permit.

This Discharge Permit requires submittal of a Closure Plan, the intent of which it is to prevent the exceedance of the groundwater protection standards of 20.6.2.3103 NMAC after the Facility ceases to operate. The Permittee's obligation to implement the Closure Plan and associated Permit requirements survives the termination or expiration of this Discharge Permit. Portions of the Closure Plan may be implemented and completed prior to the cessation of the operation of the Facility.

With regard to the Permittee's responsibility to fund closure, post-closure and corrective action requirements of this Discharge Permit and Closure Plan at the Facility, NASA White Sands Test Facility owns and operates the NASA White Sands Test Facility PFTS and MPITS, and therefore, closure, post-closure and corrective action requirements under this Discharge Permit are the legal obligations of the United States Government. The costs to perform all closure, post-closure and corrective action requirements of this Discharge Permit are funded by the United States Government through the ASA White Sands Test Facility, subject to Congressional appropriations

NMED reserves the right to require a Discharge Permit modification in the event NMED determines that the Permittee is or may be violating, or is likely to violate in the future, the requirements of 20.6.2 NMAC or the standards of Section 20.6.2.3103 NMAC. NMED reserves this right pursuant to Section 20.6.2.3109 NMAC. An NMED requirement to modify the Discharge Permit may result from a determination by the department that structural controls and/or management practices approved under this Discharge Permit are insufficiently protective of groundwater quality and human health. NMED reserves the right to require the Permittee implement abatement of water pollution and remediate groundwater quality.

NMED issuance of this Discharge Permit does not relieve the Permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

This Discharge Permit may use the following acronyms and abbreviations.

Abbreviation	Explanation	Abbreviation	Explanation
BOD ₅	biochemical oxygen demand	NMED	New Mexico Environment
	(5-day)		Department
CAP	Corrective Action Plan	NMSA	New Mexico Statutes Annotated
CFR	Code of Federal Regulations	NO ₃ -N	nitrate-nitrogen
CFU	colony forming unit	NTU	nephelometric turbidity units
Cl	chloride	QA/QC	Quality Assurance/Quality
			Control
EPA	United States Environmental	TDS	total dissolved solids
	Protection Agency		
Gpd	gallons per day	TKN	total Kjeldahl nitrogen
LAA	land application area	total nitrogen	= TKN + NO ₃ -N
LADS	Land Application Data Sheet(s)	TRC	total residual chlorine
mg/L	milligrams per liter	TSS	total suspended solids
mL	milliliters	WQA	New Mexico Water Quality
			Act
MPN	most probable number	WQCC	Water Quality Control
			Commission
NMAC	New Mexico Administrative	WWTF	Wastewater Treatment
	Code		Facility

II. FINDINGS

In issuing this Discharge Permit, NMED finds the following.

- 1. The Permittee is discharging effluent or leachate from the Facility so that such effluent or leachate may move into groundwater of the State of New Mexico that has an existing concentration of 10,000 mg/L or less of TDS, within the meaning of Subsection A of 20.6.2.3101 NMAC, without exceeding standards of 20.6.2.3103 NMAC for any water contaminant.
- 2. The Permittee is discharging effluent or leachate from the Facility directly or indirectly into groundwater pursuant to this Discharge Permit and Sections 20.6.2.3000 through 20.6.2.3114 NMAC.
- 3. The discharge from the Facility is not subject to any of the exemptions of Section 20.6.2.3105 NMAC.

III. AUTHORIZATION TO DISCHARGE

The Permittee is responsible for ensuring that discharges authorized by this Discharge Permit are consistent with the terms and conditions herein pursuant to 20.6.2.3104 NMAC.

This Discharge Permit authorizes the Permittee to receive and treat up to 1,881,000 gpd of contaminated groundwater using Plume Front and Mid-Plume groundwater remediation systems with the majority discharged into four Class V Underground Injection Control (UIC) wells. This Discharge Permit also authorizes the Permittee to discharge up to 864,000 gpd of remediated groundwater from the total permitted discharge volume to an infiltration basin. This Discharge Permit also authorizes the Permittee to discharge on a quarterly basis, up to 10 million gallons of the permitted total discharge volume generated from backflushing the injection wells and pipeline air purge operations to the infiltration basin.

[20.6.2.3104 NMAC, Subsection C of 20.6.2.3106 NMAC, Subsection D of 20.6.2.3109 NMAC]

IV. CONDITIONS

NMED issues this Discharge Permit for the discharge of water contaminants subject to the following conditions.

A. OPERATIONAL PLAN

#	Terms and Conditions
1.	The Permittee shall implement the following operational plan to ensure compliance with Title 20, Chapter 6, Parts 2 and 4 NMAC.
	[Subsection C of 20.6.2.3109 NMAC]
2.	The Permittee shall operate in a manner that does not violate standards and requirements of Sections 20.6.2.3101 and 20.6.2.3103 NMAC.
	[20.6.2.3101 NMAC, 20.6.2.3103 NMAC, Subsection C of 20.6.2.3109 NMAC]

Operational Actions with Implementation Deadlines

#	Terms and Conditions
3.	A minimum of 90 days prior to construction of the solids separation pre-treatment unit at the MPITS, the influent equalization tank at the PFTS, and the equalization tank for
	PFTS treated effluent, the Permittee shall submit final construction plans and

Terms and Conditions

specifications for NMED's review of the proposed unit and tanks. The construction plans and specifications shall bear the seal and signature of a licensed New Mexico professional engineer (pursuant to New Mexico Engineering and Surveying Practice Act and the rules promulgated under that authority) and shall include the supporting design calculations.

The submitted documentation shall include the following elements.

- a) System component(s) design, e.g., lift stations, valves, transfer lines, process units and associated details.
- b) Flow meter design detail Flow meters to measure the volume of wastewater discharged to or from the proposed unit and tanks.
- c) Specifications for all equipment, materials, and installation procedures the Permittee will use in the construction of the wastewater system.
- d) Fences design detail around the proposed unit and tanks.

Prior to constructing the solids separation pre-treatment unit at the MPITS, the influent equalization tank at the PFTS, and the equalization tank for PFTS treated effluent and its associated components, the Permittee shall obtain written verification from NMED that the plans and specifications meet the requirements of this Discharge Permit.

[Subsections A and C of 20.6.2.1202 NMAC, Subsection C of 20.6.2.3106 NMAC, Subsection C of 20.6.2.3107 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]

4. Prior to discharging to the solids separation pre-treatment unit at the MPITS, the influent equalization tank at the PFTS, and the equalization tank for PFTS treated effluent, the Permittee shall complete construction in accordance with the final construction plans and specifications required by this Discharge Permit. The Permittee shall notify NMED at least five working days prior to commencement of construction to allow NMED personnel to be onsite for inspection.

[Subsections A and C of 20.6.2.1202 NMAC, Subsection C of 20.6.2.3109 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]

5. Within 30 days of completing construction of the solids separation pre-treatment unit at the MPITS, the influent equalization tank at the PFTS, and the equalization tank for PFTS treated effluent the Permittee shall submit record drawings to NMED that bear the seal and signature of a licensed New Mexico professional engineer (pursuant to the New Mexico Engineering and Surveying Practice Act and the rules promulgated under that authority) for the constructed unit and tanks.

#	Terms and Conditions
	[Subsections A and C of 20.6.2.1202 NMAC, Subsection C of 20.6.2.3109 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]

Operating Conditions

#	Terms and Conditions
6.	The Permittee shall maintain fences around the infiltration basin to restrict access by the general public and animals. The fences shall consist of a minimum of six-foot chain link or field fencing and locking gates. The Permittee shall maintain the fences to serve the stated purpose throughout the term of this Discharge Permit.
	The Permittee shall maintain locked buildings at the MPITS and PFTS to restrict unauthorized access by the general public throughout the term of this Discharge Permit.
	[Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]
7.	The Permittee shall maintain signs indicating that the treated effluent at the Facility is not potable. The Permittee shall post signs at the UIC wellheads, the infiltration basin and other areas where there is potential for public contact with hazardous materials, equipment or effluent. The Permittee shall print signs in English and Spanish and shall ensure the signs remain visible and legible for the term of this Discharge Permit.
	[Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]
8.	The Permittee shall visually inspect the area above the infiltration basin (disposal system) semi-annually to ensure proper maintenance. The Permittee shall correct any conditions that indicate damage to the disposal system. The Permittee shall ensure conditions corrected include erosion damage, animal activity/damage, evidence of seepage, or any other condition indicating damage.
	The Permittee shall keep a log of the inspections that includes a date of the inspection, any findings and repairs, and the name of the inspector. The Permittee shall make the log available to NMED upon request.
	In the event of a failure of the disposal system, the Permittee shall implement the Contingency Plan set forth in this Discharge Permit.
	[Subsections A and D of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
9.	If an injection well is reconfigured, the Permittee must conduct a mechanical integrity test prior to re-injection of treated effluent into the subsurface at that well. The

NASA White Sands Test Facility, DP-1255

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rmittee shall also demonstrate the mechanical into to testing, the Permittee shall propose for NMED and The results of the mechanical integrity testing shaps of test completion. Subsection C of 20.6.2.3106 NMAC, Subsection A of 20.6.2.5204 NMAC	D approval the test method to be nall be submitted to NMED within
20.6.2.5204 NMAC]	20.6.2.3107 NMAC, Subsection B
e Permittee shall ensure that remediated ground mediation systems (Plume-Front and Mid-Plume) ncentrations, which are consistent with NASA WSTF	shall not exceed the following
N-Nitrosodimethylamine (NDMA): Tetrachloroethylene (or perchloroethylene, PCE): Trichloroethylene (TCE): Chloroform:	0.0042 μg/L 1.1 μg/L 5 μg/L 1.9 μg/L
	Tetrachloroethylene (or perchloroethylene, PCE): Trichloroethylene (TCE):

B. MONITORING AND REPORTING

#	Terms and Conditions
11.	The Permittee shall conduct the monitoring, reporting, and other requirements listed below in accordance with the monitoring requirements of this Discharge Permit.
	[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
12.	METHODOLOGY – Unless otherwise specified by this Discharge Permit, or approved in writing by NMED, the Permittee shall use sampling and analytical techniques that conform with the references listed in Subsection B of 20.6.2.3107 NMAC.
	[Subsection B of 20.6.2.3107 NMAC]

Due Dates for Monitoring Reports

- 13. Semi-annual monitoring The Permittee shall perform monitoring and other Permit required actions during the following periods and shall submit semi-annual reports to NMED by the following due dates:
 - January 1st through June 30th due by August 1st; and
 - July 1st through December 31st due by February 1st.

[Subsection A of 20.6.2.3107 NMAC]

Facility Monitoring Conditions

#	Terms and Conditions
14.	The Permittee shall measure the total monthly volume and calculate the daily average volume of remediated groundwater discharged to the four injection wells and the infiltration basin using totalizing flow meters. The Permittee shall also measure the total monthly volume of back-flush water discharged to the infiltration basin and ground surface using totalizing flow meters. The Permittee shall submit the average daily and monthly meter readings to NMED in the semi-annual monitoring reports. [Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]
15.	All flow meters shall be capable of having their accuracy verified under working (i.e., real-time in-the-field) conditions. The Permittee shall develop a field verification method for each flow meter and shall utilize that method to check the accuracy of each respective meter. The Permittee shall perform field calibrations, at a minimum, once within 90 days of the issuance date of this Discharge Permit (by DATE) and then on an annual basis thereafter. The Permittee shall also perform field calibrations upon repair or replacement of a flow measurement device.
	The Permittee shall calibrate each flow meter to its manufacturer's recommended specification which shall be no less accurate than plus or minus 10 percent of actual flow, as measured under field conditions. An individual knowledgeable in flow measurement shall perform field calibration and the installation/operation of the device in use. The Permittee shall prepare a flow meter calibration report for each flow measurement device calibration event. The flow meter calibration report shall include the following information. a) The location and meter identification.
	 b) The method of flow meter field calibration employed. c) The measured accuracy of each flow meter prior to adjustment indicating the positive or negative offset as a percentage of actual flow as determined by an infield calibration check. d) The measured accuracy of each flow meter following adjustment, if necessary, indicating the positive or negative offset as a percentage of actual flow of the meter. e) Any flow meter repairs made during the previous year or during field calibration. f) The name of the individual performing the calibration and the date of the calibration.

#	Terms and Conditions
	The Permittee shall maintain records of flow meter calibration(s) at a location accessible for review by NMED during Facility inspections.
	[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]
16.	The Permittee shall visually inspect flow meters on a monthly basis for evidence of malfunction. The Permittee shall maintain a log of the inspections that includes a date of the inspection, findings and repairs, and the name of the inspector. The Permittee shall make the log available to NMED upon request. If a visual inspection indicates a flow meter is not functioning as required by this
	Discharge Permit, the Permittee shall repair or replace the meter within 30 days of discovery. For <i>repaired</i> meters, the Permittee shall submit a report to NMED with the next monitoring report following the repair that includes a description of the malfunction; a statement verifying the repair; and a flow meter field calibration report completed in accordance with the requirements of this Discharge Permit. For <i>replacement</i> meters, the Permittee shall submit a report to NMED with the next monitoring report following the replacement that includes a design schematic for the device and a flow meter field calibration report completed in accordance with the requirements of this Discharge Permit.
	[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
17.	The Permittee shall collect samples from the influent and effluent of the Plume-Front and Mid-Plume remediation systems on a monthly basis and analyze the samples for: • N-Nitrosodimethylamine (NDMA) • Tetrachloroethylene (or perchloroethylene, PCE) • Trichloroethylene (TCE) • Chloroform • 1,4 Dioxane (SIMS Method) • 1,2 Dichloroethene • cis 1,2 Dichloroethene.
	The Permittee shall ensure the samples are properly prepared, preserved, transported, and analyzed in accordance with the methods authorized in this Discharge Permit. The Permittee shall submit the laboratory analytical data results, including the QA/QC summary and Chain of Custody, to NMED in the subsequent semi-annual monitoring reports.
	[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]

#	Terms and Conditions
18.	The Permittee shall submit copies of groundwater monitoring reports generated in conjunction with Permit No. NM8800019434 issued to NASA for the White Sands Test Facility by NMED's Hazardous Waste Bureau (HWB) to NMED-GWQB simultaneously with the submission to the HWB. The Permittee shall continue to submit the existing monitoring requirements, should Permit No. NM8800019434 be terminated or replaced with a HWB permit that does not include the requirements for monitoring that are current as of the date of issuance of this Discharge Permit. [Subsection A of 20.6.2.3107 NMAC]
19.	The Permittee shall determine the lifetime cancer risk posed by the concentrations of NDMA, PCE, TCE, and chloroform in the effluent samples collected monthly from the remediation systems. The Permittee shall use calculations, methodologies, exposure parameter values, and toxicity values prescribed in or referenced by <i>Regional Screening Levels for Chemical Contaminants at Superfund Sites</i> , U.S. Environmental Protection Agency, (May 2016). The Permittee shall submit the lifetime cancer risks associated with NDMA, PCE, TCE, and chloroform with the corresponding calculations to NMED-GWQB in the semi-annual monitoring reports. [Subsection A of 20.6.2.3107 NMAC]

C. CONTINGENCY PLAN

#	Terms and Conditions
20.	In the event that groundwater exceeds a groundwater protection standard identified in Section 20.6.2.3103 NMAC as a result of this discharge during the term of this Discharge Permit, upon closure of the Facility or during the implementation of post-closure requirements, the Permittee shall submit to NMED a Corrective Action Plan (CAP) that proposes, at a minimum, contaminant source control measures and an implementation schedule. The Permittee shall implement the CAP as approved by NMED.
	The NMED may require the Permittee to abate water pollution consistent with the requirements and provisions of Section 20.6.2.4101, Section 20.6.2.4103, Subsections C and E of 20.6.2.4106, Section 20.6.2.4107, Section 20.6.2.4108 and Section 20.6.2.4112 NMAC. [Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]
21.	In the event that analytical results of a effluent sample collected from either
	remediation system indicate an exceedance of any of the limitations set in this

Terms and Conditions

Discharge Permit, the Permittee shall collect and submit for analysis a second sample within 24 hours of the receipt of the initial sampling results. In the event the second sample results indicate an exceedance of the discharge limit, the Permittee shall implement the following contingencies.

- a) Notify NMED within 24 hours of the receipt of the analytical data that indicate the exceedance.
- b) Within 24 hours of receiving the analytical results, a system engineer shall visually inspect the remediation system to ensure system integrity.
- c) Within 7 days of the second sample analysis date indicating exceedance of the discharge limit, the Permittee shall:
 - i) notify NMED that the Permittee is implementing the Contingency Plan; and
 - ii) submit a copy of the first and second analytical results indicating an exceedance to NMED.
- d) If the repeat sampling confirms the exceedance(s), the Permittee shall shut down the remediation system within 24 hours of receipt of the analytical data. The Permittee shall submit a CAP to NMED for approval proposing to modify operational procedures and/or upgrade the treatment process to achieve the limitations set in this Discharge Permit. The Permittee shall submit the CAP including a schedule for completion of corrective actions and within 90 days of receipt of the analytical results of the second sample indicating that the discharge limit is continuing to be exceeded. The Permittee shall initiate implementation of the CAP following approval by NMED.

[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]

- 22. In the event that the Permittee identifies failure of the infiltration basin, the Permittee shall implement the following Contingency Plan.
 - a) Within 24 hours following the discovered failure, the Permittee shall:
 - i) Notify NMED of the failure in accordance with the notification requirements described in the Contingency Plan for unauthorized discharges; and
 - ii) Restrict public access to the area.
 - b) The Permittee shall conduct a physical inspection of the treatment and disposal system to identify additional potential failures and record them in the inspection log.
 - c) The Permittee shall propose actions to address the failure and methods of correction by submitting a CAP to NMED for approval within 15 days following the discovered failure. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions. The Permittee shall initiate implementation of the CAP following NMED approval.

[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]

Terms and Conditions

23. In the event that a release occurs that is not authorized under this Discharge Permit (commonly known as a "spill"), the Permittee shall take measures to mitigate damage from the unauthorized discharge and initiate the notifications and corrective actions required in Section 20.6.2.1203 NMAC and summarized below. A release is defined as such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property.

Within <u>24 hours</u> following discovery of the unauthorized discharge, the Permittee shall verbally notify NMED and provide the following information.

- a) The name, address, and telephone number of the person or persons in charge of the Facility, as well as of the owner and/or operator of the Facility.
- b) The name and address of the Facility.
- c) The date, time, location, and duration of the unauthorized discharge.
- d) The source and cause of unauthorized discharge.
- e) A description of the unauthorized discharge, including its estimated chemical composition.
- f) The estimated volume of the unauthorized discharge.
- g) Any actions taken to mitigate immediate damage from the unauthorized discharge.

Within <u>one week</u> following discovery of the unauthorized discharge, the Permittee shall submit written notification to NMED providing the information listed above and any pertinent updates.

Within <u>15 days</u> following discovery of the unauthorized discharge, the Permittee shall submit a Corrective Action Plan (CAP) to NMED describing any corrective actions previously taken and corrective actions to be taken relative to the unauthorized discharge. The CAP shall include the following information.

- a) A description of proposed actions to mitigate damage from the unauthorized discharge.
- b) A description of proposed actions to prevent future unauthorized discharges of this nature.
- c) A schedule for completion of proposed actions.

In the event that the unauthorized discharge causes or may with reasonable probability cause water pollution in excess of the standards and requirements of Section 20.6.2.4103 NMAC, and the water pollution will not be abated within 180 days after notice is required to be given pursuant to Paragraph (1) of Subsection A of 20.6.2.1203 NMAC, NMED may require the Permittee to abate water pollution pursuant to Sections 20.6.2.4000 through 20.6.2.4115 NMAC.

#	Terms and Conditions		
	The Permittee shall not construe anything in this condition as relieving them of the obligation to comply with all requirements of Section 20.6.2.1203 NMAC.		
	[20.6.2.1203 NMAC]		
24.	In the event that NMED or the Permittee identifies any failures of the discharge poi.e., the application, or this Discharge Permit not specifically noted herein, NMED require the Permittee to submit a CAP and a schedule for completion of correct actions to address the failure(s). Additionally, NMED may require a discharge permodification to achieve compliance with 20.6.2 NMAC.		
	[Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]		

D. CLOSURE PLAN

Closure Actions with Implementation Deadlines

#	Terms and Conditions
25.	Within 180 days following the issuance date of this Discharge Permit (by DATE), the Permittee shall submit to NMED a Closure Plan. The Closure Plan shall include the following.
	a) A detailed description of how each groundwater remediation system and infiltration basin at the Facility will be closed.
	b) A detailed description of the actions to be taken to decommission, demolish, and remove each unit, system, and other structure, including any secondary containment system components.
	c) A detailed description of the actions and controls that will be implemented during closure to prevent the release of water contaminants into the environment; to prevent water contaminants, including run-on and run-off, from moving into groundwater; and to prevent water contaminants from posing a threat to human health.
	 d) A detailed description of the methods to be used for decontamination of the site and decontamination of equipment used during closure.
	e) A detailed description of the actions that will be taken to reclaim the site, including placement of clean fill material and re-grading to blend with surrounding surface topography, minimize run-on and run-off and prevent infiltration of water, and re-vegetation.
	f) A detailed description of all monitoring, maintenance and repair, and controls that will be implemented after closure, and of all actions that will be taken to

Terms and Conditions minimize the need for post-closure monitoring, maintenance and repair, and controls. g) A groundwater monitoring plan to detect water contaminants that might move directly or indirectly into groundwater after closure, which shall provide for, at a minimum, eight consecutive quarters of groundwater monitoring after achieving the standards of 20.6.2.3103 NMAC. h) A detailed description of the methods that will be used to characterize all wastes generated during closure, including treatment residues, contaminated debris, and contaminated soil, in compliance with all applicable local, state, and federal laws and regulations. A detailed description of the methods that will be used to remove, transport, treat, recycle, and dispose of all wastes generated during closure in compliance with all applicable local, state, and federal laws and regulations. A detailed schedule for the closure and removal of each unit and system, which lists each proposed action and the estimated time to complete it. [NMSA 1978, § 74-6-5.D, 20.6.2.3107.A] 26. FINANCIAL RESPONSIBILITY - The Permittee shall ensure that the costs of closure, postclosure, and corrective action required under this Discharge Permit and Closure Plan are adequately funded as necessary to ensure the timely completion of required activities in all applicable budget NASA White Sands Test Facility requests. For purposes of this condition, financial responsibility requirements apply to all closure and post-closure requirements under the Closure Plan and potential abatement required under Condition 20 and Condition 23. Nothing in this condition shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341. The following requirements will provide a basis for NASA White Sands Test Facility to develop appropriate and timely annual budgetary requests for adequate federal funding. a) All closure and post-closure requirements, including groundwater monitoring under this Discharge Permit shall be timely and subject to enforceable milestones. b) All corrective action requirements for discharge units and systems with contaminant releases to groundwater shall be timely and subject to enforceable milestones. c) NASA White Sands Test Facility shall evaluate compliance with this Discharge

Permit as part of the annual process to develop the President's Budget Request. Budget requests for NASA White Sands Test Facility must be timely submitted to seek adequate funding to execute closure, post-closure or corrective action requirements under this Discharge Permit. The Permittee shall notify NMED

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- regarding these activities through closure and post-closure quarterly status reports.
- d) Annually, within fourteen business days after the President submits the Fiscal Year Budget Request to Congress, NASA White Sands Test Facility shall provide to NMED the relevant portion of the annual Budget Request along with detailed information regarding how NASA White Sands Test Facility calculated the request, e.g., the cost estimate, that is part of the public record. NASA White Sands Test Facility will provide an opportunity for NMED to discuss the budget request with NASA White Sands Test Facility upon request by NMED and through closure and post-closure quarterly status reports.

The Permittee shall submit a cost estimate to NMED at least 120 days prior to permanent cessation of operations for a discharge unit(s) or system(s). This cost estimate shall include all activities related to closure of the discharge unit(s) or system(s) outlined in the Closure Plan. This cost estimate shall also include costs associated with the balance of facility systems for the discharge unit(s) or system(s) not closing in the foreseeable future as identified in the Closure Plan.

[NMSA 1978, § 74-6-5.D, 20.6.2.3107.A(11) NMAC]

27. **CLOSURE SCHEDULE** - The Permittee shall notify NMED at least 120 days prior to initiation of closure activities of any discharge unit or system under this Discharge Permit required to be closed at the Facility. The closure period shall commence upon the date of permanent cessation of wastewater management at a unit or system and shall end upon NMED's approval of a final closure. Once closure activities commence, the Permittee shall provide NMED quarterly progress reports describing closure activities and Congressional budgetary requests for each quarter in accordance with the time periods required for monitoring reports in Condition 26.

Each unit or system required to be closed under this Discharge Permit shall be closed in the manner as required by the Closure Plan and its Closure Schedule.

[NMSA 1978, § 74-6-5.D, 20.6.2.3107.A]

- 28. **CLOSURE PLAN REVIEW AND CHANGES** NMED will review any proposed changes to the Closure Plan for approval. The Closure Plan shall include the following.
 - k) A detailed description of how each discharge unit and system at the Facility will be closed.
 - I) A detailed description of the actions to be taken to decommission, demolish, and remove each unit, system, and other structure, including any secondary containment system components.

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- m) A detailed description of the actions and controls that will be implemented during closure to prevent the release of water contaminants into the environment; to prevent water contaminants, including run-on and run-off, from moving into groundwater; and to prevent water contaminants from posing a threat to human health.
- n) A detailed description of the methods to be used for decontamination of the site and decontamination of equipment used during closure.
- o) A detailed description of the actions that will be taken to reclaim the site, including placement of clean fill material and re-grading to blend with surrounding surface topography, minimize run-on and run-off and prevent infiltration of water, and re-vegetation.
- p) A detailed description of all monitoring, maintenance and repair, and controls that will be implemented after closure, and of all actions that will be taken to minimize the need for post-closure monitoring, maintenance and repair, and controls.
- q) A groundwater monitoring plan to detect water contaminants that might move directly or indirectly into groundwater after closure, which shall provide for, at a minimum, eight consecutive quarters of groundwater monitoring after achieving the standards of 20.6.2.3103 NMAC.
- r) A detailed description of the methods that will be used to characterize all wastes generated during closure, including treatment residues, contaminated debris, and contaminated soil, in compliance with all applicable local, state, and federal laws and regulations.
- s) A detailed description of the methods that will be used to remove, transport, treat, recycle, and dispose of all wastes generated during closure in compliance with all applicable local, state, and federal laws and regulations.
- t) A detailed schedule for the closure and removal of each unit and system, which lists each proposed action and the estimated time to complete it.

The Permittee shall review the Closure Plan and Closure Schedule every five (5) years with each Permit renewal to determine if any changes are needed. For any changes that may impact closure of a unit and/or system under the Discharge Permit identified at any time, or during the five (5) year review (except changes regarding Section 44.i), the Permittee shall submit to NMED for approval a written notification and an amended Closure Plan. The Permittee shall: (1) public notice any change to the Closure Plan for public comment for a period of ninety (90) days after submittal of a modification request; and (2) provide NMED annual updates describing proposed or approved Closure Plan and/or schedule changes.

#	Terms and Conditions
	[NMSA 1978, § 74-6-5.D, 20.6.2.3107.A]

Permanent Facility Closure Conditions

#	Terms and Conditions		
П	Terms and Conditions		
29.	i s		
	a component of the Facility, is proposed to be permanently closed.		
	Within <u>30 days</u> of ceasing to discharge to the treatment system, the Permittee shall submit a pre-closure notification letter to NMED.		
	Within <u>90 days</u> of ceasing to discharge to the treatment system, the Permittee shall complete the following closure measures.		
	a) Remove or plug the lines leading to and from the infiltration basin, extraction wells, the remediation systems, and the injection wells so that a discharge can no longer occur.		
	b) Remove remediation system components from the site.		
	c) Fill the infiltration basin with suitable fill; and re-grade the site to blend with surface topography, promote positive drainage and prevent ponding.		
	Following notification from NMED that post-closure monitoring is not required or may cease, plug and abandon the groundwater monitoring wells, injection wells, and extraction wells in accordance with the attached Monitoring Well Guidance.		
	When the Permittee has met all closure and post-closure requirements and verified appropriate actions with date stamped photographic evidence or an associated NMED inspection, the Permittee may submit to NMED a written request, including photographic evidence, for termination of the Discharge Permit.		
	[Subsection A of 20.6.2.3107 NMAC, Subsection D of 20.6.2.4103 NMAC, 40 CFR Part 503]		

E. GENERAL TERMS AND CONDITIONS

#	Terms and Conditions		
30.	RECORD KEEPING - The Permittee shall maintain a written record of the following:		
	 Information and data used to complete the application for this Discharge Permit; 		

Terms and Conditions

- Information, data, and documents demonstrating completion of closure activities;
- Any releases (commonly known as "spills") not authorized under this Discharge Permit and reports submitted pursuant to 20.6.2.1203 NMAC;
- The operation, maintenance, and repair of all facilities/equipment used to treat, store or dispose of wastewater;
- Facility record drawings (plans and specifications) showing the actual construction of the Facility and bear the seal and signature of a licensed New Mexico professional engineer;
- Copies of logs, inspection reports, and monitoring reports completed and/or submitted to NMED pursuant to this Discharge Permit;
- The volume of wastewater or other wastes discharged pursuant to this Discharge Permit;
- Groundwater quality and wastewater quality data collected pursuant to this Discharge Permit;
- Copies of construction records (well log) for all sampled groundwater monitoring wells pursuant to this Discharge Permit;
- The maintenance, repair, replacement or calibration of any monitoring equipment or flow measurement devices required by this Discharge Permit; and
- Data and information related to field measurements, sampling, and analysis conducted pursuant to this Discharge Permit, including:
 - o the dates, location and times of sampling or field measurements;
 - the name and job title of the individuals who performed each sample collection or field measurement;
 - o the sample analysis date of each sample
 - the name and address of the laboratory, and the name of the signatory authority for the laboratory analysis;
 - the analytical technique or method used to analyze each sample or collect each field measurement;
 - o the results of each analysis or field measurement, including raw data;
 - o the results of any split, spiked, duplicate or repeat sample; and
 - a copy of the laboratory analysis chain-of-custody as well as a description of the quality assurance and quality control procedures used.

The Permittee shall maintain the written record at a location accessible to NMED during a Facility inspection for the lifetime of the Discharge Permit. The Permittee shall make the record available to the department upon request.

[Subsections A and D of 20.6.2.3107 NMAC]

#	Terms and Conditions			
31.	1. SUBMITTALS – The Permittee shall submit both a paper copy and an electronic coall notification and reporting documents required by this Discharge Permit, monitoring reports. The Permittee shall submit paper and electronic documents to NMED Permit Contact identified on the Permit cover page.			
	[Subsection A of 20.6.2.3107 NMAC]			
32.	INSPECTION and ENTRY – The Permittee shall allow NMED to inspect the Facility and its operations that are subject to this Discharge Permit and the WQCC regulations. NMED may upon presentation of proper credentials, enter at reasonable times upon or through any premises in which a water contaminant source is located or in which any maintained records required by this Discharge Permit, the regulations of the federal government, or the WQCC are located. The Permittee shall allow NMED to have access to and reproduce for their use any copy of the records, and to perform assessments, sampling or monitoring during an inspection for the purpose of evaluating compliance with this Discharge Permit and the WQCC regulations. No person shall construe anything in this Discharge Permit as limiting in any way the inspection and entry authority of NMED under the WQA, the WQCC Regulations, or any other local, state or federal regulations.			
	[Subsection D of 20.6.2.3107 NMAC, NMSA 1978, §§ 74-6-9.B and 74-6-9.E]			
33.	DUTY to PROVIDE INFORMATION - The Permittee shall, upon NMED's request, allow for NMED's inspection/duplication of records required by this Discharge Permit and/or furnish to NMED copies of such records.			
	[Subsection D of 20.6.2.3107 NMAC]			
34.	MODIFICATIONS and/or AMENDMENTS – In the event the Permittee proposes a change to the Facility or the Facility's discharge that would result in a change in the volume discharged; the location of the discharge; or in the amount or character of water contaminants received, treated or discharged by the Facility, the Permittee shall notify NMED prior to implementing such changes. The Permittee shall obtain NMED's approval (which may require modification of this Discharge Permit) prior to implementing such changes.			
	[Subsection C of 20.6.2.3107 NMAC, Subsections E and G of 20.6.2.3109 NMAC]			

Terms and Conditions 35. PLANS and SPECIFICATIONS – In the event the Permittee proposes to construct a wastewater system or change a process unit of an existing system such that the quantity or quality of the discharge will change substantially from that authorized by this Discharge Permit, the Permittee shall submit construction plans and specifications of the proposed system or process unit to NMED for approval prior to the commencement of construction. In the event the Permittee implements changes to the wastewater system authorized by this Discharge Permit that result in only a minor effect on the character of the discharge, the Permittee shall report such changes (including the submission of record drawings where applicable) to NMED prior to implementation. [Subsections A and C of 20.6.2.1202 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32] CIVIL PENALTIES - Any violation of the requirements and conditions of this Discharge 36. Permit, including any failure to allow NMED staff to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject the Permittee to a civil enforcement action. Pursuant to WQA 74-6-10(A) and (B), such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, modifying or terminating the Discharge Permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to WQA 74-6-10(C) and 74-6-10.1, civil penalties of up to \$15,000 per day of noncompliance may be assessed for each violation of the WQA 74-6-5, the WQCC Regulations, or this Discharge Permit, and civil penalties of up to \$10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation, standard, or order adopted pursuant to such other provision. In any action to enforce this Discharge Permit, the Permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. [20.6.2.1220 NMAC, NMSA 1978, §§ 74-6-10 and 74-6-10.1] 37. CRIMINAL PENALTIES – No person shall: Make any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or maintained under the WQA: Falsify, tamper with or render inaccurate any monitoring device, method or record maintained under the WQA; or Fail to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation.

Terms and Conditions Any person who knowingly violates or knowingly causes or allows another person to violate the requirements of this condition is guilty of a fourth-degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who is convicted of a second or subsequent violation of the requirements of this condition is guilty of a third-degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who knowingly violates the requirements of this condition or knowingly causes another person to violate the requirements of this condition and thereby causes a substantial adverse environmental impact is guilty of a third-degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who knowingly violates the requirements of this condition and knows at the time of the violation that he is creating a substantial danger of death or serious bodily injury to any other person is guilty of a second degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. [20.6.2.1220 NMAC, NMSA 1978, §§ 74-6-10.2.A through 74-6-10.2.F] COMPLIANCE with OTHER LAWS - Nothing in this Discharge Permit shall be construed in 38. any way as relieving the Permittee of the obligation to comply with any other applicable federal, state, and/or local laws, regulations, zoning requirements, nuisance ordinances, permits or orders. [NMSA 1978, § 74-6-5.L] 39. RIGHT to APPEAL - The Permittee may file a petition for review before the WQCC on this Discharge Permit. Such petition shall be in writing to the WQCC within thirty days of the receipt of postal notice of this Discharge Permit and shall include a statement of the issues raised and the relief sought. Unless the Permittee files a timely petition for review, the decision of NMED shall be final and not subject to judicial review. [20.6.2.3112 NMAC, NMSA 1978, § 74-6-5.0] 40. TRANSFER of DISCHARGE PERMIT - Prior to the transfer of any ownership, control, or possession of this Facility or any portion thereof, the Permittee shall: Notify the proposed transferee in writing of the existence of this Discharge Permit; Include a copy of this Discharge Permit with the notice; and Deliver or send by certified mail to NMED a copy of the notification and proof that the proposed transferee has received such notification. The Permittee shall continue to be responsible for any discharge from the Facility, until both ownership and possession of the Facility have been transferred to the transferee.

#	Terms and Conditions
	[20.6.2.3111 NMAC]
41.	PERMIT FEES — The Permittee shall be aware that the payment of permit fees is due at the time of Discharge Permit approval. The Permittee may pay the permit fees in a single payment or they may pay the fee in equal installments on a yearly basis over the term of the Discharge Permit. The Permittee shall remit single payments to NMED no later than 30 days after the Discharge Permit issuance date. The Permittee shall remit initial installment payments to NMED no later than 30 days after the Discharge Permit issuance date; with subsequent installment payments remitted to NMED no later than the anniversary of the Discharge Permit issuance date.
	Permit fees are associated with <u>issuance</u> of this Discharge Permit. No person shall construe anything in this Discharge Permit as relieving the Permittee of the obligation to pay all permit fees assessed by NMED. A Permittee that ceases discharging or does not commence discharging from the Facility during the term of the Discharge Permit shall pay all permit fees assessed by NMED. NMED shall suspend or terminate an approved Discharge Permit if the Permittee fails to remit an installment payment by its due date. [Subsection F of 20.6.2.3114 NMAC, NMSA 1978, § 74-6-5.K]



New Mexico Environment Department Ground Water Quality Bureau Discharge Permit Summary

Facility Information

Facility Name NASA White Sands Test Facility, Plume Front Treatment System (PFTS)

and Mid-plume Interception and Treatment System (MPITS)

Discharge Permit Number DP-1255

Legally Responsible PartyTimothy J. Davis, Chief, Environmental Office

NASA White Sands Test Facility

P.O. Box 20

Las Cruces, NM 88004 (575) 524-5024

Treatment, Disposal and Site Information

Primary Waste Type Facility Type

Industrial (Remediation)
Pump and Treat

Treatment Methods

Туре	Designation	Description & Comments
Air stripping, filtration and UV photolysis	Plume Front	Eight extraction wells are used to pump contaminated ground water to the remediation system with the effluent being reinjected through four wells.
Air stripping, filtration and UV photolysis	Mid Plume	Mid plume water is pumped to a similar remediation system and discharged to an infiltration basin downgradient of the injection wells.
Chemical	Process enhancement and biofouling control	 Sodium polyphosphate (Aqua Mag ® C-10, or equal; Alconox) Hydrogen peroxide Alum Polydimethylsilicone hydroxyacetic acid Sodium hypochlorite Liquid gaseous carbon dioxide Liquid ozone Citric acid

Discharge Locations

Туре	Designation	Description & Comments
Injection wells	Plume Front	Remediated effluent is discharged to four injection wells.
Infiltration Basin	Mid Plume	Remediated effluent is discharged to the infiltration basin which is near the 4 injection wells.
Ground Surface	Backflush	Surface disposal would be in the vicinity of the injection wells and infiltration basin.



New Mexico Environment Department Ground Water Quality Bureau Discharge Permit Summary

Depth-to-Ground Water 434 feet **Total Dissolved Solids (TDS)** 820 mg/L

Permit Information

Original Permit Issued March 10, 2000
Permit Renewal and Modification September 26, 2011
Permit Renewal and Modification July 14, 2017

Permit Renewal and Modification date

Current Action Permit Renewal and Modification

Application Received January 13, 2022

Public Notice Published date

Permit Issued (Issuance Date) [issuance date]

Permitted Discharge Volume 1,881,000 gallons per day

NMED Contact Information

Mailing Address Ground Water Quality Bureau

P.O. Box 5469

Santa Fe, New Mexico 87502-5469

GWQB Telephone Number (505) 827-2900

NMED Lead Staff Melanie Sandoval Lead Staff Telephone Number (505) 660-7892

Lead Staff Email melanie.sandoval2@state.nm.us