



MICHELLE LUJAN GRISHAM
GOVERNOR

JAMES C. KENNEY
CABINET SECRETARY

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

April 16, 2024

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

RE: Draft Discharge Permit Renewal, DP-697, NASA White Sands Test Facility 300 Area Small Altitude Simulation System

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, DP-697, (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 below, via email to melanie.sandoval2@env.nm.gov or to pps.general@env.nm.gov, or directly into the NMED Public Comment Portal at <https://nmed.commentinput.com/comment/search>. If NMED does not receive written comments or a request for hearing during the public comment period, the draft Discharge Permit will become final.

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 Team Lead

SCIENCE | INNOVATION | COLLABORATION | COMPLIANCE

Ground Water Quality Bureau | 1190 Saint Francis Drive, PO Box 5469, Santa Fe, New Mexico 87502-5469
Telephone (505) 827-2900 | www.env.nm.gov/gwqb/

Timothy J. Davis
April 16, 2024
Page 2 of 2

Encl: Draft Discharge Permit Renewal, DP-697

cc: Amanda Skarsgard, Environmental Compliance Lead, amanda.g.skarsgard@nasa.gov
David Will, david.j.will@nasa.gov
Elizabeth M. Nietubyc, elizabeth.m.nietubyc@nasa.gov
Melissa J. John, melissa.j.john@nasa.gov



NEW MEXICO
ENVIRONMENT DEPARTMENT
 Ground Water Quality Bureau
 1190 Saint Francis Drive / PO Box 5469
 Santa Fe, NM 87502-5469
 Phone (505) 827-2900 Fax (505) 827-2965
www.env.nm.gov



Draft: April 16, 2024

GROUND WATER QUALITY BUREAU
DISCHARGE PERMIT
Issued under 20.6.2 NMAC

Facility Name: NASA White Sands Test Facility 300 Area Small Altitude Simulation System

Discharge Permit Number: DP-697

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

Telephone Number/Email: (575) 524-5798 / timothy.j.davis@nasa.gov

Permitting Action: Renewal

Permit Issuance Date: DATE

Permit Expiration Date: DATE

NMED Permit Contact: Melanie Sandoval

Telephone Number/Email: (505) 660-7892 / melanie.sandoval2@env.nm.gov or
505-827-2900 / pps.general@env.nm.gov

JUSTIN D. BALL
 Chief, Ground Water Quality Bureau
 New Mexico Environment Department

Date

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ATTACHMENTS

Discharge Permit Summary

Groundwater Discharge Permit Guidance for Synthetically Lined Lagoons – Liner
Material and Site Preparation, Revision 0.0, May 2007

New Mexico Environment Department Ground Water Quality Bureau Monitoring Well
Construction and Abandonment Guidelines, Revision 1.1, March 2011 (Monitoring
Well Guidance)

draft

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this groundwater discharge permit Renewal (Discharge Permit or DP-697) 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 300 Area Small Altitude Simulation System (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 stopped receiving cooling water in September 2016. The wastewater impoundment is currently part of an ongoing investigation performed in accordance with NMED Hazardous Waste Bureau (HWB) investigation work plan submitted August 17, 2020. HWB has not granted final closure approval for the investigation.

The Facility is in post-closure care and consequently this Discharge Permit is primarily for groundwater monitoring. Prior to closure, the Facility discharged up to 25,000 gallons per day (gpd) of pure distillate steam condensate and cooling tower makeup water to a synthetically lined impoundment for disposal by evaporation.

Discharge Permit Location Information:

Physical Address	12600 NASA Road
Nearest Town/City	12 miles east of Las Cruces
Section, Township, Range	Section 36, Township 20 south, Range 03 east
County	Doña Ana
Depth to Groundwater	126 ft
Pre-Discharge TDS	679 mg/L

Discharge Permit Issuance History:

Original Permit Issuance	December 30, 1992
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Permit Renewal	May 8, 1998
Permit Modification	August 21, 2000
Permit Renewal	October 9, 2003

The application (i.e., discharge plan) associated with this Discharge Permit consists of the materials submitted by the Permittee dated November 21, 2023, 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.

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, owns and operates the NASA White Sands Test Facility - 300 Area Small Altitude Simulation System, 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 NASA 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 to 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 (5-day)	NMED	New Mexico Environment 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

Abbreviation	Explanation	Abbreviation	Explanation
Cl	chloride	QA/QC	Quality Assurance/Quality Control
EPA	United States Environmental Protection Agency	TDS	total dissolved solids
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 Code	WWTF	Wastewater Treatment 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 this Facility has the potential to 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 NMAC.

III. AUTHORIZATION

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.

The Permittee ceased discharging pure distillate steam condensate and cooling tower makeup water to the evaporative impoundment in 2016. This Discharge Permit authorizes the Facility to continue post closure care and groundwater monitoring.

[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]

Operating Conditions

#	Terms and Conditions
3.	The Permittee shall maintain fences around the Facility 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. [Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]
4.	The Permittee shall maintain signs indicating that the wastewater at the Facility is not potable. The Permittee shall post signs at the Facility entrance and other areas where there is potential for public contact with wastewater. 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]
5.	The Permittee shall maintain the impoundment liner to avoid conditions that could affect the liner or the structural integrity of the impoundment. Characterization of such conditions may include the following: <ul style="list-style-type: none"> • erosion damage; • animal burrows or other damage;

#	Terms and Conditions
	<ul style="list-style-type: none"> • the presence of vegetation including aquatic plants, weeds, woody shrubs or trees growing within five feet of the top inside edge of a sub-grade impoundment, within five feet of the toe of the outside berm of an above-grade impoundment, or within the impoundment itself; • the presence of large debris or large quantities of debris in the impoundment; • evidence of seepage; or • evidence of berm subsidence. <p>The Permittee shall routinely control vegetation growing around the impoundment by mechanical removal that is protective of the impoundment liner.</p> <p>The Permittee shall visually inspect the impoundment and surrounding berms on a monthly basis to ensure proper maintenance. In the event that an inspection reveals any evidence of damage that threatens the structural integrity of an impoundment berm or liner, or that may result in an unauthorized discharge, the Permittee shall implement the Contingency Plan set forth in this Discharge Permit.</p> <p>The Permittee shall create and maintain a log of all impoundment inspections which describes the date of the inspection, any findings and repairs and the name of the person responsible for the inspection. The Permittee shall make the log available to NMED upon request.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>
6.	<p>The Permittee shall preserve a minimum of two feet of freeboard, i.e., the distance between the highest calculated liquid level in the impoundment and the liquid level which would result in the release of stored liquid from the impoundment.</p> <p>In the event that the Permittee determines that it cannot preserve two feet of freeboard in the impoundment, the Permittee shall implement the Contingency Plan set forth in this Discharge Permit.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>

B. MONITORING AND REPORTING

#	Terms and Conditions
7.	<p>The Permittee shall conduct the monitoring, reporting, and other requirements listed below in accordance with the monitoring requirements of this Discharge Permit.</p>

#	Terms and Conditions
	[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
8.	<p>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.</p> <p>[Subsection B of 20.6.2.3107 NMAC]</p>

Due Dates for Monitoring Reports

#	Terms and Conditions
9.	<p>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:</p> <ul style="list-style-type: none"> • January 1st through June 30th – due by August 1st; and • July 1st through December 31st – due by February 1st. <p>[Subsection A of 20.6.2.3107 NMAC]</p>

Groundwater Monitoring Conditions

#	Terms and Conditions
10.	<p>The Permittee shall perform semi-annual groundwater sampling in the following groundwater monitoring wells and analyze the samples for TKN, NO₃-N, TDS, and Cl.</p> <ol style="list-style-type: none"> a) MW-NASA 3, located hydrologically upgradient of the wastewater impoundment (32.5266141, -106.5918447). b) MW-NASA 5, located hydrologically downgradient of the wastewater impoundment (32.5262820, -106.5964755). c) MW-NASA 10, located hydrologically downgradient of the wastewater impoundment (32.5265728, -106.5963709). <p>The Permittee shall perform groundwater sample collection, preservation, transport, and analysis according to the following procedures.</p> <ol style="list-style-type: none"> a) Measure the depth-to-most-shallow groundwater from the top of the well casing to the nearest one-hundredth of a foot. b) Purge three well volumes of water from the well prior to sample collection. c) Obtain samples from the well for analysis. d) Properly prepare, preserve, and transport samples.

#	Terms and Conditions
	<p>e) Analyze samples in accordance with the methods authorized in this Discharge Permit.</p> <p>The Permittee shall submit the depth-to-most-shallow groundwater measurements and the laboratory analytical data results including the laboratory QA/QC summary report and Chain of Custody for each well, and a Facility layout map showing the location and number of the well to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
11.	<p>NMED shall have the option to perform downhole inspections of all groundwater monitoring wells identified in this Discharge Permit. NMED shall establish the inspection date and notify the Permittee. The Permittee shall remove any existing dedicated pumps at least 48 hours prior to NMED inspection to allow adequate settling time of sediment agitated from pump removal.</p> <p>Should the Permittee decide to install a pump in a monitoring well without a dedicated pump, the Permittee shall notify NMED at least 90 days prior to pump installation so that NMED can schedule a downhole well inspection prior to pump placement.</p> <p>[Subsections A and D of 20.6.2.3107 NMAC]</p>

CONTINGENCY PLAN

#	Terms and Conditions
12.	<p>In the event that groundwater monitoring indicates that groundwater exceeds a standard identified in Section 20.6.2.3103 NMAC in a monitoring well with no previous exceedances of the chemical constituent at the date of issuance of this Discharge Permit, the Permittee shall collect a confirmatory sample from the monitoring well within 15 days of receipt of the initial sampling results to confirm the initial sampling results.</p> <p>Within 60 days of confirmation of groundwater contamination, 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.</p> <p>This condition shall apply until the Permittee completes groundwater monitoring for a minimum of eight (8) consecutive quarterly samples demonstrating groundwater does not exceed the standards of Section 20.6.2.3103 NMAC.</p>

#	Terms and Conditions
	<p>Violation of the groundwater standard beyond 180 days after the confirmation of groundwater contamination may cause NMED to 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.</p> <p>[20.6.2.3103 NMAC, Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]</p>
13.	<p>In the event that information available to NMED indicates that a monitoring well is not constructed in a manner consistent with the attached Monitoring Well Guidance, contains insufficient water to effectively monitor groundwater quality, or is otherwise not completed in a manner that is protective of groundwater quality, the Permittee shall install a replacement well(s) within 120 days following notification from NMED.</p> <p>The Permittee shall install replacement well(s) at locations approved by NMED prior to installation and shall complete replacement well(s) in accordance with the attached Monitoring Well Guidance. The Permittee shall submit well construction and lithologic logs to NMED within 60 days following well completion.</p> <p>The Permittee shall properly plug and abandon monitoring well(s) requiring replacement upon completion of the replacement monitoring well(s). The Permittee shall complete the well plugging and abandonment, and shall document the abandonment procedures, in accordance with the attached Monitoring Well Guidance and all applicable local, state, and federal regulations. The Permittee shall submit a copy of the well abandonment documentation to NMED within 60 days following the replacement well(s) completion.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
14.	<p>In the event that an inspection performed by the Permittee reveals significant damage has occurred or is likely to affect the structural integrity of an impoundment or liner or their ability to contain contaminants, the Permittee shall propose the repair or replacement by submitting a CAP to NMED for approval. The Permittee shall submit the CAP to NMED within 30 days after discovery of the damage or following notification from NMED that significant damage is evident. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions. The Permittee shall initiate implementation of the CAP following approval by NMED.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>

#	Terms and Conditions
15.	<p>In the event that an impoundment cannot preserve a minimum of two feet of freeboard, the Permittee shall take actions to restore the required freeboard as authorized by this Discharge Permit and all applicable local, state, and federal regulations.</p> <p>In the event that two feet of freeboard cannot be restored within a period of 72 hours following discovery, the Permittee shall propose actions to restore two feet of freeboard by submitting a short-term CAP to NMED for approval. Examples of short-term corrective actions include the pumping and hauling of excess wastewater from the impoundment or reducing the volume of wastewater discharged to the impoundment. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions. The Permittee shall submit the CAP within 15 days following the date the Permittee or the NMED discover the exceedance. The Permittee shall implement the CAP following NMED approval.</p> <p>In the event that the short-term corrective actions fail to restore two feet of freeboard, the Permittee shall submit to NMED a proposal for permanent corrective actions in a long-term CAP. The Permittee shall submit the long-term CAP within 90 days following failure of the short-term CAP. Examples of corrective actions include the installation of an additional storage impoundment or a significant and permanent reduction in the volume of wastewater discharged to the impoundment. The Permittee shall ensure the long-term CAP includes a schedule for completion of corrective actions. The Permittee shall implement the CAP following NMED approval.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
16.	<p>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.</p> <p>Within <u>24 hours</u> following discovery of the unauthorized discharge, the Permittee shall verbally notify NMED and provide the following information.</p> <ol style="list-style-type: none"> 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.

#	Terms and Conditions
	<p>e) A description of the unauthorized discharge, including its estimated chemical composition.</p> <p>f) The estimated volume of the unauthorized discharge.</p> <p>g) Any actions taken to mitigate immediate damage from the unauthorized discharge.</p> <p>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.</p> <p>Within <u>15 days</u> following discovery of the unauthorized discharge, the Permittee shall submit a 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.</p> <p>a) A description of proposed actions to mitigate damage from the unauthorized discharge.</p> <p>b) A description of proposed actions to prevent future unauthorized discharges of this nature.</p> <p>c) A schedule for completion of proposed actions.</p> <p>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.</p> <p>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.</p> <p>[20.6.2.1203 NMAC]</p>
17.	<p>In the event that NMED or the Permittee identifies any failures of the discharge plan, i.e., the application, or this Discharge Permit not specifically noted herein, NMED may require the Permittee to submit a CAP and a schedule for completion of corrective actions to address the failure(s). Additionally, NMED may require a discharge permit modification to achieve compliance with 20.6.2 NMAC.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]</p>

C. CLOSURE PLAN

Closure Actions with Implementation Deadlines

#	Terms and Conditions
18.	<p>FINANCIAL RESPONSIBILITY - The Permittee shall ensure that the costs of closure, post-closure, 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 the purposes of this condition, financial responsibility requirements apply to all closure and post-closure requirements under the Closure Plan and potential abatement. 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.</p> <p>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.</p> <ul style="list-style-type: none">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 regarding these activities through closure and post-closure semi-annual 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 semi-annual status reports.

#	Terms and Conditions
	<p>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.</p> <p>[NMSA 1978, § 74-6-5.D, 20.6.2.3107.A(11) NMAC]</p>
19.	<p>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 semi-annual progress reports describing closure activities and Congressional budgetary requests for each report in accordance with the time periods required for monitoring reports.</p> <p>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.</p> <p>[NMSA 1978, § 74-6-5.D, 20.6.2.3107.A]</p>
20.	<p>CLOSURE PLAN REVIEW AND CHANGES - NMED will review any proposed changes to the Closure Plan for approval. The Closure Plan includes the following.</p> <ol style="list-style-type: none"> a) A detailed description of how each discharge unit and system 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.

#	Terms and Conditions
	<p>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 minimize the need for post-closure monitoring, maintenance and repair, and controls.</p> <p>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.</p> <p>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.</p> <p>i) 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.</p> <p>j) 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.</p> <p>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.</p> <p>[NMSA 1978, § 74-6-5.D, 20.6.2.3107.A]</p>

Permanent Facility Closure Conditions

#	Terms and Conditions
21.	<p>The Permittee shall perform the following closure measures upon approval of the final closure by the HWB investigation.</p> <p>The Permittee shall plug the impoundment influent lines so that a discharge can no longer occur.</p>

#	Terms and Conditions
	<p>The Permittee shall evaporate or drain all wastewater from the impoundment and any other wastewater system component and disposed of it in accordance with all local, state, and federal regulations.</p> <p>The Permittee shall submit a sludge removal and disposal plan to NMED for approval. The Permittee shall implement the plan within 30 days following approval by NMED. The sludge removal and disposal plan shall include the following information.</p> <ol style="list-style-type: none"> a) The estimated volume and dry weight of sludge planned for removal and disposal, including measurements and calculations. b) Analytical results for samples of the sludge taken from the impoundment for TKN, NO₃-N, percent total solids, and any other parameters tested (reported in mg/kg, dry weight basis). c) The method of sludge <i>removal</i> from the impoundment. d) The method of <i>disposal</i> for all the sludge (and its contents) removed from the impoundment(s). The method shall comply with all local, state and federal regulations, including 40 CFR Part 503. <i>Note: A proposal that includes the surface disposal of sludge may be subject to Groundwater Discharge Permitting requirements pursuant to 20.6.2.3104 NMAC that are separate from the requirements of this Discharge Permit.</i> e) A schedule for completion of sludge removal and disposal not to exceed two years from the date discharge to the impoundment ceased. <p>Within <u>one year</u> following completion of the sludge removal and disposal, the Permittee shall complete the following closure measures.</p> <ol style="list-style-type: none"> a) Remove all lines leading to and from the impoundment, or permanently plug and abandon the lines in place. b) Remove or demolish any other wastewater system components and re-grade area with suitable fill to blend with surface topography, promote positive drainage and prevent ponding. c) Characterize, remove, and dispose of all solids from the impoundment in accordance with local, state, and federal regulations, and maintain a record of solids transported for off-site disposal, including the volume of solids transported and the disposal location. d) Remove and dispose of the impoundment liners at a solid waste facility. If there is evidence of contaminated soil below the liners, assess the impact, report that assessment to NMED, and mitigate the impacts following NMED approval. e) Fill the impoundment(s) with suitable fill. f) Re-grade the impoundment site and the locations of ancillary equipment, e.g., influent piping, to blend with surface topography, promote positive drainage and prevent ponding.

#	Terms and Conditions
	<p>The Permittee shall continue groundwater monitoring until the Permittee meets the requirements of this condition met and groundwater monitoring confirms for a minimum of eight consecutive quarterly groundwater sampling events that groundwater does not exceed the standards of Section 20.6.2.3103 NMAC. This period is referred to as “post-closure.”</p> <p>If at any time monitoring results show an exceedance of a groundwater quality standard in Section 20.6.2.3103 NMAC, the Permittee shall implement the Contingency Plan required by this Discharge Permit.</p> <p>Following notification from NMED that the Permittee may cease post-closure monitoring, the Permittee shall plug and abandon the monitoring well(s) in accordance with the attached Monitoring Well Guidance.</p> <p>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.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection D of 20.6.2.4103 NMAC, 40 CFR Part 503]</p>

D. GENERAL TERMS AND CONDITIONS

#	Terms and Conditions
22.	<p>RECORD KEEPING - The Permittee shall maintain a written record of the following:</p> <ul style="list-style-type: none"> • Information and data used to complete the application for this Discharge Permit; • 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;

#	Terms and Conditions
	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> ○ 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; ○ 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; ○ the results of each analysis or field measurement, including raw data; ○ 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. <p>The Permittee shall maintain the written record at a location accessible to NMED during a Facility inspection for a minimum of five years. The Permittee shall make the record available to NMED upon request.</p> <p>[Subsections A and D of 20.6.2.3107 NMAC]</p>
23.	<p>SUBMITTALS – The Permittee shall submit both a paper copy and an electronic copy of all notification and reporting documents required by this Discharge Permit, e.g., monitoring reports. The Permittee shall submit paper and electronic documents to the NMED Permit Contact identified on the Permit cover page.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
24.	<p>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</p>

#	Terms and Conditions
	<p>records required by this Discharge Permit, the regulations of the federal government, or the WQCC are located.</p> <p>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.</p> <p>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.</p> <p>[Subsection D of 20.6.2.3107 NMAC, NMSA 1978, §§ 74-6-9.B and 74-6-9.E]</p>
25.	<p>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.</p> <p>[Subsection D of 20.6.2.3107 NMAC]</p>
26.	<p>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.</p> <p>[Subsection C of 20.6.2.3107 NMAC, Subsections E and G of 20.6.2.3109 NMAC]</p>
27.	<p>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.</p> <p>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.</p>

#	Terms and Conditions
	[Subsections A and C of 20.6.2.1202 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]
28.	<p>CIVIL PENALTIES - Any violation of the requirements and conditions of this Discharge 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.</p> <p>[20.6.2.1220 NMAC, NMSA 1978, §§ 74-6-10 and 74-6-10.1]</p>
29.	<p>CRIMINAL PENALTIES – No person shall:</p> <ul style="list-style-type: none"> • 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. <p>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.</p>

#	Terms and Conditions
	<p>[20.6.2.1220 NMAC, NMSA 1978, §§ 74-6-10.2.A through 74-6-10.2.F]</p>
30.	<p>COMPLIANCE with OTHER LAWS - Nothing in this Discharge Permit shall be construed in 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.</p> <p>[NMSA 1978, § 74-6-5.L]</p>
31.	<p>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.</p> <p>[20.6.2.3112 NMAC, NMSA 1978, § 74-6-5.O]</p>
32.	<p>TRANSFER of DISCHARGE PERMIT - Prior to the transfer of any ownership, control, or possession of this Facility or any portion thereof, the Permittee shall:</p> <ul style="list-style-type: none"> • 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. <p>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.</p> <p>[20.6.2.3111 NMAC]</p>
33.	<p>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.</p> <p>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</p>

#	Terms and Conditions
	<p>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.</p> <p>[Subsection F of 20.6.2.3114 NMAC, NMSA 1978, § 74-6-5.K]</p>

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New Mexico Environment Department Ground Water Quality Bureau Discharge Permit Summary

Facility Information

Facility Name NASA White Sands Test Facility 300 Area Small Altitude Simulation System
Discharge Permit Number DP-697
Legally Responsible Party NASA White Sands Test Facility
Timothy J. Davis, Chief
Mailing Address
P.O. Box 20
Las Cruces, NM 88004
(575) 524-5024

Treatment, Disposal and Site Information

Primary Waste Type Industrial
Facility Type Federal

Discharge Locations

Type	Designation	Description & Comments
Impoundment	300 Area Cooling Water Holding Pond (302 Pond)	Has not received wastewater since 2016. Synthetically lined evaporative impoundment with a total capacity of 330,000 gallons.

Ground Water Monitoring Locations

Type	Designation	Description & Comments
Monitoring Well	MW-NASA 3	Located hydrologically upgradient of the wastewater impoundment (32.5266141, -106.5918447).
Monitoring Well	MW-NASA 5	Located hydrologically downgradient of the wastewater impoundment (32.5262820, -106.5964755).
Monitoring Well	MW-NASA 10	Located hydrologically downgradient of the wastewater impoundment (32.5265728, -106.5963709).

Depth-to-Ground Water 125.65 feet
Total Dissolved Solids (TDS) 679 mg/L

Permit Information

Original Permit Issued December 30, 1992
Permit Renewal May 8, 1998
Permit Modification August 21, 2000
Permit Renewal October 9, 2003

Current Action Renewal
Application Received November 21, 2023
Public Notice Published not yet published



New Mexico Environment Department Ground Water Quality Bureau Discharge Permit Summary

Permit Issued (Issuance Date)
Permitted Discharge Volume

issuance date
0 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@env.nm.gov or pps.general@env.nm.gov

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