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**GROUND WATER QUALITY BUREAU
DISCHARGE PERMIT
Issued under 20.6.2 NMAC**

Facility Name: Waste Isolation Pilot Plant (WIPP)
Discharge Permit Number: DP-831
Facility Location: Highway 128, 26 miles southeast of Carlsbad
 Sections 20, 21, 28, and 29, Township 22S, Range 31E

County: Eddy

Permittee: U.S. Department of Energy
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Permitting Action: Renewal and Modification

Permit Issuance Date: DATE
Permit Expiration Date: DATE

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GROUND WATER DISCHARGE PERMIT RENEWAL and MODIFICATION
Waste Isolation Pilot Plant (WIPP), DP-831

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this groundwater Discharge Permit Renewal and Modification (Discharge Permit or DP-831) to the U.S. Department of Energy (DOE or 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 the Waste Isolation Pilot Plant (WIPP or 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 may result in an NMED enforcement action(s) (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 Permittee discharges domestic wastewater to a synthetically lined impoundment system for treatment and disposal by evaporation at a rate of up to 23,000 gallons per day (gpd). The system consists of seven synthetically lined impoundments (Facultative Lagoon System) comprised of Settling Lagoons 1 and 2, Polishing Lagoons 1 and 2, and Effluent Lagoons A, B, and C.

The Permittee may discharge non-domestic wastewater at the Facility in the following ways:

- Effluent Lagoons B and C of the Facultative Lagoon System receive industrial wastewater at a volume of up to 27,000 gpd from the following sources: wastewater from compressed air systems, brine, purge waters from sampling and developing Facility monitoring wells, and other miscellaneous industrial non-hazardous, non-radioactive wastewaters. The Permittee is authorized to discharge these industrial wastewaters to the Facultative Lagoon System for evaporative disposal.
- Evaporation Pond H-19 receives industrial wastewater at a volume of up to 50,000 gpd from the following sources: brine, purge waters from sampling and developing Facility monitoring wells, condensate from the Exhaust Shaft fan ductwork on the surface, and water collected from the Waste Shaft Sump, Exhaust Shaft Interception Wells, and other observation boreholes in the underground. The Permittee is authorized to discharge these industrial wastewaters to Evaporation Pond H-19 for evaporative disposal.

- The to-be-constructed Salt Reduction System will produce and discharge brine at a volume of up to 2,210 gpd. The Salt Reduction System, which is located within the Safety Significant Confinement Ventilation System (SSCVS), will discharge brine to two double synthetically lined impoundments, each with a leak detection system (Brine Retention Ponds East and West, collectively Brine Ponds). The Facility will use one brine retention pond while the other brine retention pond is closed for evaporation and removal of precipitated salt in order to maintain at least two feet of freeboard. The Permittee will transfer any remaining brine in the closed Brine Pond to Brine Salt Storage Pond 4 for evaporative disposal.
- The Permittee will mine salt and other subsurface materials during construction of the Facility. The Permittee will store this mined salt, as well as already mined salt on the surface in four stockpiles (Salt Cells 1, 2, 3, and 5). Salt Storage Ponds 2 and 3 are two double synthetically lined impoundments, each with leak detection, that collect stormwater runoff that contacts Salt Cells 2 and 3. The total storage capacity of Salt Storage Ponds 2 and 3 is 21,737,254 gallons. Salt Storage Pond 5, a double synthetically lined stormwater impoundment with a leak detection system, will collect stormwater runoff in contact with Salt Cell 5. The storage capacity of Salt Storage Pond 5 will be 6,355,404 gallons. Salt Cell 1 no longer receives salt and is capped with synthetic material and an earthen cover. Salt Storage Pond 1, a synthetically lined impoundment, collects stormwater runoff in contact with this stockpile in synthetically lined diversion ditches directed to Salt Storage Pond 1. The storage capacity of Salt Storage Pond 1 is 3,301,634 gallons. With proper operation and maintenance, the storage capacity of each salt storage pond is sufficient to contain a 24-hour, 100-year (5.84-inch rainfall) storm event.
- Brine Salt Storage Pond 4, a double synthetically lined storm water impoundment with a leak detection system, collects stormwater runoff from the SSCVS area. The storage capacity of Brine Salt Storage Pond 4 is 8,668,722 gallons. With proper operation and maintenance, the capacity of the Brine Salt Storage Pond 4 is sufficient to contain a 24-hour, 100-year (5.84-inch rainfall) storm event.
- Storm Water Ponds 1, 2, and 3, three synthetically lined impoundments, collect additional stormwater runoff from the Facility's paved areas and roofs. This runoff is not in contact with the salt stockpiles or other waste materials at the Facility and the Permittee may use the impounded water for dust control, soil compaction, and other construction activities.

The Permittee stores salt and other subsurface materials mined during construction of the Facility, as well as currently mined salt, on the surface in four stockpiles (Salt Cells 1, 2, 3, and 5). The Permittee closed Salt Cell 1 with a 60-mil HDPE synthetic liner cover and two feet of native soil, as well as a 60-mil HDPE synthetically lined drainage system for stormwater runoff collection. Salt Cells 2 and 3 were constructed with six inches of prepared subgrade, a 60-mil HDPE liner, a

200-mil Geonet drainage layer, an eight-ounce geotextile fabric, and the fabric is then covered with two feet of screened native soil. Each salt cell is sloped toward the center, which contains a collection trench and pipe for conveyance of water to Salt Storage Ponds 2 and 3. Salt Cell 5 will be constructed with a 60-mil HDPE liner on the bottom with a protective layer of native soil on top to protect the liner. The Permittee will install a HDPE pipe to collect and transmit by gravity the leachate and stormwater runoff water from Salt Cell 5 to Salt Storage Pond 5.

The Permittee constructed the Site and Preliminary Design Validation (SPDV) material pile as the Permittee excavated the shafts when construction first began at the WIPP site. The Permittee closed the SPDV material pile in the year 2000 with a geosynthetic liner cover installed on 6 inches of bedding material and covered with a minimum of three feet of earthen material.

The Permit Modification consists of the addition of one new salt storage cell and four new impoundments: Salt Cell 5, Salt Storage Pond 5, Brine Salt Storage Pond 4, Brine Retention Pond East, and Brine Retention Pond West. Salt Cell 5 adds a new salt storage location, which will receive overburden and salt from the construction of Shaft 5 and its associated underground connecting drifts. Salt Storage Pond 5 will receive both the leachate and stormwater in contact with mined salt located in Salt Cell 5.

The Facility is located near the Jal Highway (NM-128), 26 miles southeast of Carlsbad, in Sections 20, 21, 28, and 29, Township 22S, Range 31E, Eddy County.

The WIPP Facility is a mined geologic repository for the disposal of transuranic (TRU) waste. The underground repository is located 2,150 feet below land surface in the bedded salt of the Salado Formation. The WIPP first accepted waste in March 1999. In addition to this groundwater Discharge Permit, the NMED Hazardous Waste Bureau under the New Mexico Hazardous Waste Act and New Mexico's Hazardous Waste Regulations regulates the WIPP.

The WIPP Facility is geologically situated in the southeast portion of New Mexico within the Delaware Basin, which is part of the larger Permian Basin. The geologic formations below the Facility that are pertinent to this Discharge Permit, from deepest to shallowest, include: the Salado Formation (851 to 2,150 below ground surface [bgs]), the Rustler Formation (546 to 851 bgs), the Dewey Lake Formation (54 to 564 bgs), and, in the northeastern portion of the Facility, the Santa Rosa Formation (34 to 54 bgs). The Salado Formation consists predominately of polyhalite, with some halite, carbonates, anhydrites, and clay seams. The Rustler Formation consists of carbonates, anhydrites, and halites. The Dewey Lake Formation consists almost entirely of mudstone, claystone, siltstone, and interbedded sandstone, and is frequently referred to as the Dewey Lake Redbeds Formation. Geologists use the terms upper, middle, and lower Dewey Lake to describe the stratigraphic position in the formation and characteristics that related to the occurrence of saturated conditions. The upper Dewey Lake consists of a thick, generally unsaturated section. The middle Dewey Lake occurs above a sulfate cementation change, which results in saturated conditions and a natural water table in limited areas. The

lower Dewey Lake is below the sulfate cementation change and has low permeability. The Santa Rosa Formation consists of gray and red sandstone with lenses of shale and conglomerate.

The vadose zone consists, from shallowest to deepest, of Quaternary dune sand (0 to 7.5 bgs), Mescalero caliche (7.5 to 17 bgs), and the Gatuña Formation (17 to 34 bgs). Recharge rates through the native soils are extremely low and there is little recharge through the vadose zone to the Santa Rosa Formation.

A discharge at this Facility is most likely to affect groundwater at a depth of approximately 34 to 160 feet. Natural groundwater is located in the middle portion of the Dewey Lake Formation at a depth of approximately 160 feet and has an average total dissolved solids concentration of approximately 3,400 milligrams per liter. The WIPP discovered a perched water zone in the lower Santa Rosa and upper Dewey Lake Formations in 1995 and determined that the probable sources of this shallow groundwater were the unlined impoundments constructed to capture stormwater runoff at the Facility and runoff from the above-ground salt piles. This shallow groundwater is contaminated with total dissolved solids, sulfate (SO₄), and chloride. After the discovery of the anthropogenically created shallow groundwater (referred to as shallow groundwater), the Permittee lined all impoundments at the Facility and installed a network of monitoring wells. The shallow groundwater has a flow direction of north to south. Natural, non-anthropogenic, groundwater occurs in the Dewey Lake Formation (referred to as natural groundwater in the Dewey Lake Formation) south of the WIPP facility at a depth of 160 feet. The Dewey Lake Formation has a relatively low hydraulic conductivity.

The first laterally continuous water-bearing zone below the Facility is within an approximately 30-foot-thick section of the Culebra Member of the Rustler Formation. Water in the Culebra Member is usually present in fractures and is confined by overlying anhydrite and underlying clay and anhydrite beds. A network of monitoring wells monitors the Culebra Member.

NMED issued the original Discharge Permit on January 16, 1992, amended on August 28, 1995, renewed on July 3, 1997, amended on June 12, 1998 and on January 24, 2000, renewed on April 29, 2003, modified on December 22, 2003 and on December 29, 2006, renewed and modified on July 23, 2008, and last renewed on July 29, 2014. The application (i.e., discharge plan) consists of the materials submitted by the Permittee dated December 3, 2018 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.

NMED reserves the right to require a discharge permit modification in the event NMED determines that the Permittee is violating or may violate the requirements of 20.6.2 NMAC or are violating or may violate 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 NMED that structural controls and/or management practices approved under this Discharge Permit need to be more stringent to protect groundwater quality. NMED reserves the right to require the Permittee to implement abatement of water pollution and remediate groundwater quality.

NMED’s 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 |
| CFR | Code of Federal Regulations | NMSA | New Mexico Statutes Annotated |
| CFU | colony forming unit | NO ₃ -N | nitrate-nitrogen |
| Cl | chloride | NTU | nephelometric turbidity units |
| EPA | United States Environmental Protection Agency | QA/QC | Quality Assurance/Quality Control |
| gpd | gallons per day | TDS | total dissolved solids |
| HDPE | high-density polyethylene | TKN | total Kjeldahl nitrogen |
| LAA | land application area | total nitrogen | = TKN + NO ₃ -N |
| LADS | Land Application Data Sheet(s) | TRC | total residual chlorine |
| LDCRS | leak detection, collections, and recovery systems | TSS | total suspended solids |
| mg/L | milligrams per liter | WQA | New Mexico Water Quality Act |
| MPN | most probable number | WQCC | Water Quality Control Commission |
| NMAC | New Mexico Administrative Code | WWTF | Wastewater Treatment Facility |
| mL | milliliters | | |

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 allowed to discharge effluent or leachate from the Facility directly or indirectly into groundwater pursuant to this Discharge Permit and Section 20.6.2.3104 NMAC.
3. The discharge from the Facility is not subject to any of the exemptions of Section 20.6.2.3105 NMAC including Subsection 20.6.2.3105.A which allows an exemption from obtaining a discharge permit if the discharge is composed of effluent or leachate which conforms to all the standards in Subsection A, B, and C of Section 20.6.2.3103 NMAC and has a total nitrogen concentration of 10 mg/L or less.

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 discharge up to 23,000 gpd of domestic wastewater to a synthetically lined facultative lagoon system for disposal by evaporation. The Facultative Lagoon System is authorized to accept up to 27,000 gpd of non-hazardous, non-radioactive industrial wastewater from compressed air systems at the Facility, brine, purge waters from sampling and developing Facility wells, and miscellaneous industrial non-hazardous, non-radioactive wastewater for disposal by evaporation. This Discharge Permit authorizes the Permittee to discharge up to 50,000 gpd of brine, purge waters, condensate from the Exhaust Shaft fan ductwork on the surface, and water collected from the Waste Shaft Sump, Exhaust Shaft Interception Wells, and other observation boreholes in the underground into Evaporation Pond H-19. This Discharge Permit also authorizes the Permittee to discharge up to 2,210 gpd of brine from a 3,000-gallon holding tank to Brine Retention Ponds East and West for disposal by evaporation. In order to maintain at least two feet of freeboard, the Permittee is authorized to transfer the remaining brine in the Brine Ponds to Brine Salt Storage Pond 4.

This Discharge Permit authorizes the Permittee to stockpile mined salt in four salt cells: Salt Pile 1 is closed with a cover; Salt Cells 2, 3 and 5 have authorized footprints of 6.2 acres, 5.2 acres, and 5.1 acres, respectively. The Permittee is authorized to collect stormwater runoff from these salt cells in three double synthetically lined impoundments with leak detection systems (Salt Storage Pond 2, Salt Storage Pond 3, and Salt Storage Pond 5) and one synthetically lined impoundment with a drainage system (Salt Storage Pond 1) for disposal by evaporation. This Discharge Permit authorizes the Permittee to collect stormwater runoff from the Facility's paved areas and roofs in Storm Water Ponds 1, 2, and 3, as well as Brine Salt Storage Pond 4. This runoff is not in contact with the salt stockpiles at the Facility, and runoff from Storm Water Ponds 1, 2, and 3 may be used for dust control, soil compaction, and other construction activities.

This Discharge Permit sets forth requirements for the discharge and disposal of domestic and non-domestic wastewater. Conditions in the Operational Plan, the Monitoring and Reporting, and the Closure Plan sections are categorized as follows:

- **Part A. Generally Applicable to All Discharges;**
- **Part B. Applicable to the Facultative Lagoon System;**
- **Part C. Applicable to the Evaporation Pond H-19, Brine Retention Pond East, Brine Retention Pond West, Brine Salt Storage Pond 4, and Storm Water Ponds 1, 2, and 3;**
- **Part D. Applicable to the Impoundments Containing Stormwater Runoff in Contact with Salt Stockpiles (Salt Storage Ponds 1, 2, 3, and 5) and to Salt Stockpiles (Salt Cells 1, 2, 3, and 5); and**
- **Part E. Applicable to Ground Water Monitoring.**

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

IV. CONDITIONS

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

OPERATIONAL PLAN

Part A. Generally Applicable to All Discharges

| # | Operating Conditions Applicable to All Discharges |
|----------|---|
| 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 the Facility in a manner such that it does not violate the 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] |
| 3. | The Permittee shall maintain the impoundment liners as to avoid conditions that could affect the liner or the structural integrity of the impoundments. Characterization of such conditions may include the following: <ul style="list-style-type: none">• erosion damage;• animal burrows or other damage;• 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 |

| # | Operating Conditions Applicable to All Discharges |
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| | <p>five feet of the toe of the outside berm of an above-grade impoundment, or within the impoundment itself;</p> <ul style="list-style-type: none"> • 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 impoundments by mechanical removal that is protective of the impoundment liner.</p> <p>The Permittee shall visually inspect the impoundments and surrounding berms on a monthly basis to ensure proper maintenance. In the event that 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 that describes the findings and repairs, the date of the inspection, 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> |
| 4. | <p>The Permittee shall preserve a minimum of one foot of freeboard between the liquid level in all the impoundments and the elevation of the top of the impoundment liner, except Brine Salt Storage Pond 4, Salt Storage Pond 5, and Brine Retention Ponds East and West shall maintain two feet of freeboard.</p> <p>In the event that the Permittee determines that the specified freeboard cannot be preserved in the impoundments, 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> |

Part B. Applicable to the Facultative Lagoon System

| # | Facultative Lagoon System - Operational Actions with Implementation Deadlines |
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| 5. | <p>Within three years following the effective date of this Discharge Permit (by DATE), the Permittee shall measure the thickness of the settled solids in two impoundments (Settling Lagoon 1 and Settling Lagoon 2) that are part of the Facultative Lagoon System.</p> |

| # | Facultative Lagoon System - Operational Actions with Implementation Deadlines |
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| | <p>The Permittee shall report the results of the solids thickness measurements to NMED in the subsequent required periodic monitoring report.</p> <p>The Permittee shall measure the thickness of settled solids in each impoundment in accordance with the following procedure.</p> <ol style="list-style-type: none"> a) The division of the total surface area of the treatment impoundment into nine equal sub-areas. b) One measurement (to the nearest half foot) using a settled solids measurement device (core sampler) per sub-area. c) Calculation of the average of the nine measurements. <p>In the event that the measured settled solids exceed one-third of the maximum liquid depth 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> |

| # | Facultative Lagoon System - Operating Conditions |
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| 6. | <p>The Permittee shall maintain fences around the Facultative Lagoon System to restrict access by wildlife, livestock, or unauthorized persons. 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.</p> <p>[Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]</p> |
| 7. | <p>The Permittee shall maintain signs indicating that the wastewater at the Facility is not potable. The Permittee shall post signs at the Facultative Lagoon System’s entrance and other areas where there is potential for public contact with wastewater. The signs shall be printed in English and Spanish and shall remain visible and legible for the term of this Discharge Permit.</p> <p>[Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]</p> |
| 8. | <p>The Permittee shall utilize operators of the domestic wastewater collection, treatment and disposal systems that are certified by the State of New Mexico at the appropriate level pursuant to 20.7.4 NMAC. A certified operator or a direct supervisee of a certified operator shall perform the operations and maintenance of all or any part of the wastewater system.</p> |

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| # | Facultative Lagoon System - Operating Conditions |
| | <p>The Permittee shall notify the NMED within 24 hours if at any time the Permittee no longer has a certified operator maintaining the system.</p> <p>[Subsection C of 20.6.2.3109 NMAC, 20.7.4 NMAC]</p> |

Part C. Applicable to the Evaporation Pond H-19, Brine Retention Pond East, Brine Retention Pond West, Brine Salt Storage Pond 4, and Storm Water Ponds 1, 2, and 3

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| # | Evaporation Pond H-19, Brine Ponds, Brine Salt Storage Pond 4, and Storm Water Ponds 1, 2, and 3 - Operational Actions with Implementation Deadlines |
| 9. | <p>Within 180 days following the effective date of this Discharge Permit (by DATE), the Permittee shall install fences around Storm Water Ponds 1, 2 and 3 to limit access by wildlife, livestock, or unauthorized persons. 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.</p> <p>Documentation of fence installation shall consist of a narrative statement describing the fences and gates with date-stamped photographs. The Permittee shall submit the documentation to NMED in the subsequent required periodic monitoring report.</p> <p>[Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]</p> |
| 10. | <p>Within two years following the effective date of this Discharge Permit (by DATE), the Permittee shall measure the thickness of the settled solids in Evaporation Pond H-19. The Permittee shall report the results of the solids thickness measurements to NMED in the subsequent required periodic monitoring report.</p> <p>The Permittee shall measure the thickness of settled solids in accordance with the following process.</p> <ol style="list-style-type: none"> a) Measure the water level via the staff gauge located in the impoundment. b) Lower a sounding line to the top of the salt deposit and measure the length of the line from the top of the salt deposit to the water level. c) Subtract the depth to the salt deposit from the water level. <p>In the event that the measured settled solids exceed one-third of the maximum liquid depth 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> |

| # | Evaporation Pond H-19, Brine Ponds, Brine Salt Storage Pond 4, and Storm Water Ponds 1, 2, and 3 - Operational Actions with Implementation Deadlines |
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| 11. | <p>Prior to discharging to Brine Retention Pond East, Brine Retention Pond West, or Brine Salt Storage Pond 4, the Permittee shall complete construction of the Ponds in accordance with the final construction plans and specifications the Permittee submitted to NMED as part of the Discharge Permit application received on December 3, 2018. The Permittee shall notify NMED prior to the commencement of construction to allow NMED personnel to be onsite for inspection during construction.</p> <p>[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]</p> |
| 12. | <p>Within 30 days of construction completion of Brine Retention Pond East, Brine Retention Pond West, and Brine Salt Storage Pond 4, 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).</p> <p>[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]</p> |
| 13. | <p>Prior to discharging to Brine Salt Storage Pond 4, the Permittee shall install fences around said impoundment to limit access by wildlife, livestock, or unauthorized persons. 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.</p> <p>Documentation of fence installation shall consist of a narrative statement describing the fences and gates with date-stamped photographs. The Permittee shall submit the documentation to NMED in the subsequent required periodic monitoring report.</p> <p>[Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]</p> |
| 14. | <p>Prior to discharging to Brine Salt Storage Pond 4, the Permittee shall post signs indicating that the wastewater in the impoundment is not potable. The Permittee shall post signs at the Facility entrance and other areas where there is potential for public contact with wastewater. Posted signs shall be in English and Spanish and shall remain visible and legible during the term of this Discharge Permit.</p> <p>Documentation of the sign installation shall consist of a date-stamped photograph. The Permittee shall submit the documentation to NMED in the subsequent required periodic monitoring report.</p> |

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| # | Evaporation Pond H-19, Brine Ponds, Brine Salt Storage Pond 4, and Storm Water Ponds 1, 2, and 3 - Operational Actions with Implementation Deadlines |
| | [Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D] |
| 15. | <p>Prior to discharging to the proposed Brine Retention Pond East, the Brine Retention Pond West, or the Brine Salt Storage Pond 4, the Permittee shall submit written notification to NMED stating the date the discharge(s) is to commence.</p> <p>[Subsection C of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p> |

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| # | Evaporation Pond H-19, Brine Ponds, Brine Salt Storage Pond 4, and Storm Water Ponds 1, 2, and 3 - Operating Conditions |
| 16. | <p>The Permittee shall construct, maintain and operate the leak detection, collection, and recovery systems (LDCRS) for Brine Salt Storage Pond 4 and Brine Retention Ponds East and West in a manner that will result in less than one foot of hydraulic head on the secondary liners in the impoundments.</p> <p>In the event that the Permittee cannot maintain less than one foot of hydraulic head on the secondary liners for Brine Salt Storage Pond 4 and Brine Retention Ponds East and West, the Permittee shall notify NMED within 48 hours of discovery and shall submit a Corrective Action Plan to NMED that evaluates the primary liner leakage rate, proposes options for reducing the leakage if optimal, or otherwise proposes a means to maintain less than one foot of hydraulic head on the secondary liner. The Permittee shall submit the plan to NMED for approval within 60 days after the discovery that the hydraulic head on the secondary liner has surpassed one foot.</p> <p>In the event that it becomes necessary to modify a LDCRS for an impoundment, the Permittee shall submit a report describing the proposed revised methodology for NMED approval.</p> <p>[20.6.2.3107 NMAC]</p> |
| 17. | <p>The Permittee shall maintain fences around Evaporation Pond H-19 to limit access by wildlife, livestock, or unauthorized persons. 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.</p> <p>[Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]</p> |
| 18. | <p>The Permittee shall maintain signs indicating that the wastewater in Evaporation Pond H-19 is not potable. The Permittee shall post signs at the impoundment entrance and other areas where there is potential for public contact with wastewater. The signs shall</p> |

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| # | Evaporation Pond H-19, Brine Ponds, Brine Salt Storage Pond 4, and Storm Water Ponds 1, 2, and 3 - Operating Conditions |
| | <p>be printed in English and Spanish and shall remain visible and legible for the term of this Discharge Permit.</p> <p>[Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]</p> |

Part D. Applicable to the Impoundments Containing Stormwater Runoff in Contact with Salt Stockpiles (Salt Storage Ponds 1, 2, 3, and 5) and to Salt Stockpiles (Salt Cells 1, 2, 3, and 5)

| # | Salt Storage Ponds and Salt Stockpiles - Operational Actions with Implementation Deadlines |
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| 19. | <p>Within 90 days following the effective date of this Discharge Permit (by DATE), the Permittee shall install fences around Salt Storage Ponds 1, 2 and 3 to limit access by wildlife, livestock, or unauthorized persons. 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.</p> <p>Documentation of fence installation shall consist of a narrative statement describing the fences and gates and date-stamped photographs. The Permittee shall submit the documentation to NMED in the subsequent required periodic monitoring report.</p> <p>[Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]</p> |
| 20. | <p>Within 120 days following the effective date of this Discharge Permit (by DATE), the Permittee shall post signs indicating that the wastewater in Salt Storage Ponds 1, 2 and 3 is not potable. The Permittee shall post signs at the Facility entrance and other areas where there is potential for public contact with wastewater. Posted signs shall be in English and Spanish and shall remain visible and legible during the term of this Discharge Permit.</p> <p>Documentation of sign installation shall consist of date-stamped photographs. The Permittee shall submit the documentation to NMED in the subsequent required periodic monitoring report.</p> <p>[Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]</p> |
| 21. | <p>Within two years following the effective date of this Discharge Permit (by DATE), the Permittee shall measure the thickness of the settled solids in Salt Storage Pond 1, 2, and 3. The Permittee shall report the results of the solids thickness measurements to NMED in the subsequent required periodic monitoring report.</p> |

| # | Salt Storage Ponds and Salt Stockpiles - Operational Actions with Implementation Deadlines |
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| | <p>The Permittee shall measure the thickness of settled solids in each Salt Storage Pond in accordance with the following procedure.</p> <ul style="list-style-type: none"> a) Measure the water level via the staff gauge located in the impoundment. b) Lower a sounding line to the top of the salt deposit and measure the length of the line from the top of the salt deposit to the water level c) Subtraction of the depth to the salt deposit from the water level. <p>In the event that the measured settled solids exceed one-third of the maximum liquid depth 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> |
| 22. | <p>Prior to discharging to Salt Storage Pond 5 and prior to utilizing Salt Cell 5, the Permittee shall complete construction in accordance with the final construction plans and specifications the Permittee submitted to NMED as part of the Discharge Permit application received on December 3, 2018. The Permittee shall notify NMED prior to construction to allow NMED personnel to be onsite for inspection during construction.</p> <p>[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]</p> |
| 23. | <p>Within 30 days of completing construction of Salt Storage Pond 5 and Salt Cell 5, the Permittee shall submit record final 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).</p> <p>[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]</p> |
| 24. | <p>Prior to discharging to Salt Storage Pond 5, the Permittee shall submit written notification to NMED stating the date the discharge is to commence.</p> <p>[Subsection C of 20.6.2.3107 NMAC]</p> |
| # | Salt Storage Ponds and Salt Stockpiles - Operating Conditions |
| 25. | <p>The Permittee shall maintain and operate the leak detection, collection, and removal systems (LDCRS) for Salt Storage Ponds 2, 3 and 5 in a manner that will result in less than one foot of hydraulic head on the secondary liners in the ponds.</p> |

| # | Salt Storage Ponds and Salt Stockpiles - Operating Conditions |
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| | <p>In the event that the Permittee cannot maintain less than one foot of hydraulic head on the secondary liners for Salt Storage Ponds 2, 3 and 5, the Permittee shall notify NMED within 48 hours of the discovery and shall submit a Corrective Action Plan to NMED which evaluates the primary liner leakage rate, proposes options for reducing the leakage if optimal, or otherwise proposes a means to maintain less than one foot of hydraulic head on the secondary liner. The Permittee shall submit the plan to NMED for approval within 60 days after the discovery that the hydraulic head on the secondary liner has surpassed one foot.</p> <p>In the event that it becomes necessary to modify a LDCRS for a pond, the Permittee shall submit a report describing the proposed revised methodology for NMED approval.</p> <p>[20.6.2.3107 NMAC]</p> |
| 26. | <p>The Permittee shall conduct regular inspection of the earthen cover on Salt Cell 1 and the SPDV material pile. The Permittee shall conduct inspections monthly and after storm events of 2 inches or greater in a 24-hour period to evaluate the integrity of the covers, including erosional impact and vegetation success. The Permittee shall report general observations and minor cover repairs to NMED in the subsequent semi-annual report.</p> <p>In the event of significant erosion, such as the formation of gullies, rills, or areas where ponding is occurring, vegetative failure, or impending liner damage, the Permittee shall provide a plan and schedule for repair to NMED for approval within 90 days of discovery.</p> <p>[20.6.2.3107 NMAC]</p> |

MONITORING AND REPORTING

Part A. Generally Applicable to Monitoring

| # | Monitoring and Reporting Conditions |
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| 27. | <p>The Permittee shall conduct monitoring, reporting, and the other requirements listed below in accordance with the monitoring requirements of this Discharge Permit.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p> |
| 28. | <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> |

| # | Monitoring and Reporting Conditions |
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| | [Subsection B of 20.6.2.3107 NMAC] |
| 29. | <p>Semi-annual monitoring: The Permittee shall perform semi-annual monitoring during the following periods and shall submit 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, Subsection C of 20.6.2.3109 NMAC]</p> |
| 30. | <p>The Permittee shall submit its “Waste Isolation Pilot Plant Annual Site Environmental Report” to NMED with the next semi-annual monitoring report following its publication.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |

Part B. Applicable to the Facultative Lagoon System

| # | Facultative Lagoon System - Monitoring and Reporting Conditions |
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| 31. | <p>The Permittee shall estimate the monthly volume of domestic wastewater discharged to the Facultative Lagoon System by obtaining readings on a monthly basis from a totalizing flow meter that measures total domestic water usage. The Permittee shall submit the monthly meter readings and calculated monthly and average daily water usage volumes to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p> |
| 32. | <p>The Permittee shall measure the total monthly volume and record the origin of all industrial wastewater discharged to Effluent Lagoons B and C. The Permittee shall calculate discharge volumes to Effluent Lagoons B and C by a time/volume method or volumetric measurement of the transport container(s). The Permittee shall submit the monthly discharge volumes or other volumetric calculations and waste origins from each month to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p> |
| 33. | <p>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 upon the repair or replacement of a flow measurement device and, at a minimum, once within 90 days of the effective date of this Discharge Permit (by DATE).</p> |

| # | Facultative Lagoon System - Monitoring and Reporting Conditions |
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| | <p>The Permittee shall ensure each flow meter is calibrated 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. Field calibrations shall be performed by an individual knowledgeable in flow measurement and in the installation/operation of the particular device in use.</p> <p>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.</p> <ol style="list-style-type: none"> 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 in-field 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. <p>The Permittee shall maintain flow meter calibration reports at a location accessible for review by NMED during Facility inspections.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]</p> |
| 34. | <p>The Permittee shall collect a composite wastewater sample on a semi-annual basis (once every six months) from Effluent Lagoon A. The composite sample shall consist of a minimum of six equal aliquots collected at equal distances around the entire perimeter of the evaporative impoundment and thoroughly mixed. The Permittee shall analyze the composite sample for:</p> <ul style="list-style-type: none"> • TKN; • NO₃-N; • TDS; • Cl; and • SO₄. <p>The Permittee shall ensure 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 results, including the QA/QC summary and Chain of Custody, to NMED in the semi-annual monitoring reports.</p> |

| # | Facultative Lagoon System - Monitoring and Reporting Conditions |
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| | [Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC] |
| 35. | <p>In the event that the Permittee discharges any industrial wastewater to Effluent Lagoon B or C within a monitoring reporting period, the Permittee shall collect a composite wastewater sample from the impoundment(s) that received the industrial wastewater discharge. The composite sample(s) shall consist of a minimum of six equal aliquots collected at equal distances around the entire perimeter of the evaporative impoundment(s) and thoroughly mixed. The Permittee shall analyze the composite sample(s) for:</p> <ul style="list-style-type: none"> • TDS; • Cl; and • SO₄. <p>The Permittee shall ensure 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 results, including the QA/QC summary and Chain of Custody, to NMED in the semi-annual monitoring reports.</p> <p>NMED may require comprehensive laboratory analyses of the industrial wastewater discharged to Effluent Lagoons B and C prior to discharge when NMED determines that additional information is needed.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p> |

Part C. Applicable to the Evaporation Pond H-19, Brine Retention Pond East, Brine Retention Pond West, Brine Salt Storage Pond 4, and Storm Water Ponds 1, 2, and 3

| # | Evaporation Pond H-19, Brine Ponds, Brine Salt Storage Pond 4, and Storm Water Ponds 1, 2, and 3 - Monitoring and Reporting Conditions |
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| 36. | <p>The Permittee shall measure the total monthly volume and record the origin of all wastewater discharged to Evaporation Pond H-19. The Permittee shall calculate discharge volumes to Evaporation Pond H-19 by a time/volume method or volumetric measurement of the transport container(s). The Permittee shall submit the monthly discharge volumes or other volumetric calculations and waste origins each month to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p> |
| 37. | <p>The Permittee shall measure the total monthly volume of brine received by Brine</p> |

| # | Evaporation Pond H-19, Brine Ponds, Brine Salt Storage Pond 4, and Storm Water Ponds 1, 2, and 3 - Monitoring and Reporting Conditions |
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| | <p>Retention Ponds East and West. The Permittee shall calculate discharge volumes to Brine Retention Ponds East and West by a time/volume method or volumetric measurement of the transport container(s). NMED may require comprehensive laboratory analyses of such wastewater prior to discharge when NMED determines that additional information is needed. The Permittee shall submit the monthly discharge volumes and other volumetric calculations each month to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p> |
| 38. | <p>The Permittee shall measure the total weekly volume of liquid pumped from the leak detection sumps for Brine Salt Storage Pond 4 and Brine Retention Ponds East and West. The Permittee shall calculate the total volume of liquid pumped by a totalizing flow meter. The Permittee shall submit the weekly volumes to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p> |
| 39. | <p>The Permittee shall collect a composite wastewater sample annually after a storm event of two inches or greater in a 24-hour period from Storm Water Ponds 1, 2, and 3. The composite sample shall consist of a minimum of six equal aliquots collected at equal distances around the perimeter of the evaporative impoundments and thoroughly mixed. The Permittee shall analyze the composite sample for:</p> <ul style="list-style-type: none"> • SO₄; • TDS; and • Cl. <p>The Permittee shall ensure samples are properly prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. The Permittee shall submit laboratory analytical results, including the QA/QC summary and Chain of Custody, to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p> |
| 40. | <p>The Permittee shall collect a composite wastewater sample on a semi-annual basis (once every six months) from Evaporation Pond H-19 and from Brine Salt Storage Pond 4, once it becomes operational. The composite sample shall consist of a minimum of six equal aliquots collected at equal distances around the perimeter of the evaporative impoundment and thoroughly mixed. The Permittee shall analyze the composite sample for:</p> <ul style="list-style-type: none"> • SO₄; |

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| # | <p>Evaporation Pond H-19, Brine Ponds, Brine Salt Storage Pond 4, and Storm Water Ponds 1, 2, and 3 - Monitoring and Reporting Conditions</p> |
| | <ul style="list-style-type: none"> • TDS; and • Cl. <p>The Permittee shall ensure samples are properly prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. The Permittee shall submit laboratory analytical results, including the QA/QC summary and Chain of Custody, to NMED in the semi-annual monitoring reports.</p> <p>NMED may require comprehensive laboratory analyses of the industrial wastewater discharged to Evaporation Pond H-19 prior to discharge when NMED determines that additional information is needed.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p> |
| 41. | <p>During the first year following the effective date of the Discharge Permit (by DATE), the Permittee shall collect a grab sample (except as noted for pH) of wastewater from Evaporation Pond H-19 and analyze the sample for the following inorganic contaminants (dissolved fraction, except as noted):</p> <ul style="list-style-type: none"> • aluminum (CAS 7429-90-5) • antimony (CAS 7440-36-0) • arsenic (CAS 7440-38-2) • barium (CAS 7440-39-3) • beryllium (CAS 7440-41-7) • boron (CAS 7440-42-8) • cadmium (CAS 7440-43-9) • chromium (CAS 7440-47-3) • cobalt (CAS 7440-48-4) • copper (CAS 7440-50-8) • cyanide CAS 57-12-5) • fluoride (CAS 16984-48-8) • iron (CAS 7439-89-6) • lead (CAS 7439-92-1) • manganese (CAS 7439-96-5) • molybdenum (CAS 7439-98-7) • total mercury (nonfiltered) (CAS 7439-97-6) • pH (instantaneous) • nickel (CAS 7440-02-0) • radioactivity: combined radium-226 & radium-228 (CAS 15262-20-1) • selenium (CAS 7782-49-2) • silver (CAS 7440-224) • sulfate (CAS 14808-79-8) • thallium (CAS 7440-28-0) • uranium (CAS 7440-61-1) • zinc (CAS 7440-66-6) <p>The Permittee shall ensure the samples are properly collected, prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. The Permittee shall analyze the sample using analytical methods with reporting limits less than the corresponding numerical groundwater standards identified in 20.6.2.3103 NMAC.</p> |

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| # | <p>Evaporation Pond H-19, Brine Ponds, Brine Salt Storage Pond 4, and Storm Water Ponds 1, 2, and 3 - Monitoring and Reporting Conditions</p> |
| | <p>The Permittee shall submit a summary of measured concentrations compared with the corresponding groundwater standards, a copy of the laboratory report, including the laboratory analytical results, QA/QC summary report and the Chain of Custody, to NMED in the next monitoring report.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]</p> |
| 42. | <p>During the first year following the effective date of the Discharge Permit (by DATE), the Permittee shall collect a grab sample of wastewater from Evaporation Pond H-19 and analyze the non-filtered sample for the following organic contaminants:</p> <ul style="list-style-type: none"> • atrazine (CAS 1912-24-9) • benzene (CAS 71-43-2) • benzo-a-pyrene (CAS 50-32-8) • carbon tetrachloride (CAS 56-23-5) • chloroform (CAS 67-66-3) • 1,2-dichlorobenzene (CAS 95-50-1) • 1,4-dichlorobenzene (CAS 106-46-7) • 1,1-dichloroethane (CAS 75-34-3) • 1,2-dichloroethane (EDC, CAS 107-06-2) • 1,1-dichloroethene (1,1-DCE, CAS 75-35-4) • cis-1,2-dichloroethene (CAS 156-59-2) • trans-1,2-dichloroethene (CAS 156-60-5) • 1,2-dichloropropane (PDC, CAS 78-87-5) • ethylbenzene (CAS 100-41-4) • ethylene dibromide (EDB, CAS 106-93-4) • methylene chloride (CAS 75-09-2) • <u>PAHs</u>: total naphthalene (CAS 91-20-3) plus monomethylnaphthalenes • Phenols (CAS 108-95-2) • polychlorinated biphenyls (PCBs, CAS 1336-36-3) • pentachlorophenol (CAS 87-86-5) • toluene (CAS 108-88-3) • styrene (CAS 100-42-5) • 1,1,2,2-tetrachloroethane (CAS 79-34-5) • tetrachloroethene (PCE, CAS 127-18-4) • 1,2,4-trichlorobenzene (CAS 120-82-1) • 1,1,1-trichloroethane (1,1,1-TCA, CAS 71-55-6) • 1,1,2-trichloroethane (CAS 79-00-5) • trichloroethene (TCE, CAS 79-01-6) • vinyl chloride (CAS 75-01-4) • total xylenes (CAS 1330-20-7) <p>The Permittee shall ensure the sample is properly collected, prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. The Permittee shall analyze samples using analytical methods with reporting</p> |

| # | Evaporation Pond H-19, Brine Ponds, Brine Salt Storage Pond 4, and Storm Water Ponds 1, 2, and 3 - Monitoring and Reporting Conditions |
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| | <p>limits less than the corresponding numerical groundwater standards identified in 20.6.2.3103 NMAC.</p> <p>The Permittee shall submit a summary of measured concentrations compared with the corresponding groundwater standards and a copy of the laboratory report, including the laboratory analytical results, QA/QC summary, and the Chain of Custody, to NMED in the next monitoring report.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]</p> |
| 43. | <p>The Permittee shall measure the water depth in Storm Water Ponds 1, 2, and 3 and Brine Salt Storage Pond 4 monthly to the nearest tenth of a foot (0.1 ft). The Permittee shall calculate and submit the approximate monthly volume of water to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC and Subsection H of 20.6.2.3109 NMAC]</p> |
| 44. | <p>The Permittee shall collect at least one sample quarterly rotating between Brine Retention Pond East and Brine Retention Pond West of the liquid present and analyze the sample for every constituent listed in Subsection A of 20.6.2.3103 NMAC. The Permittee shall submit the laboratory analytical results, including the QA/QC summary and Chain of Custody, to NMED in the semi-annual monitoring reports.</p> <p>After four consecutive quarterly sampling events, the Permittee may request a reduction in the sampling frequency and/or analyte list set forth in this Discharge Permit.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p> |
| 45. | <p>The Permittee shall submit all analytical laboratory data from Brine Retention Ponds East and West submitted to the NMED Hazardous Waste Bureau to the Ground Water Quality Bureau.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |
| 46. | <p>The Permittee shall submit a copy of all records of solids (salt) removal from the Brine Retention Basins East and West and the associated disposal documentation to NMED in the subsequent semi-annual monitoring report.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |

Part D. Applicable to the Impoundments Containing Stormwater Runoff in Contact with Salt Stockpiles (Salt Storage Ponds 1, 2, 3, and 5) and to Salt Stockpiles (Salt Cells 1, 2, 3, and 5)

| # | Salt Storage Ponds and Salt Stockpiles - Monitoring and Reporting Conditions |
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| 47. | <p>The Permittee shall collect a composite wastewater sample annually after a storm event of 2 inches or greater in a 24-hour period from Salt Storage Ponds 1, 2, 3, and 5. The composite sample shall consist of a minimum of six equal aliquots collected at equal distances around the perimeter of the evaporative impoundments and thoroughly mixed. The Permittee shall analyze the composite sample for:</p> <ul style="list-style-type: none"> • SO₄; • TDS; and • Cl. <p>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 results, including the QA/QC summary and Chain of Custody, to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p> |
| 48. | <p>The Permittee shall measure the water depth monthly to the nearest tenth of a foot (0.1 ft) in the Salt Storage Ponds 1, 2, 3, and 5. The Permittee shall calculate and submit the approximate volume of water to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p> |
| 49. | <p>The Permittee shall measure the total volume of liquid pumped from the leak detection sumps for Salt Storage Ponds 2 and 3 during every pumping event. The Permittee shall calculate the total volume of liquid pumped by a volumetric measurement of the container(s) filled. The Permittee shall submit the volumetric calculations for each pumping event to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p> |
| 50. | <p>The Permittee shall measure the weekly volume of liquid pumped from the leak detection sump for Salt Storage Pond 5. The Permittee shall calculate the total volume of liquid pumped by a totalizing flow meter. The Permittee shall submit the weekly volumes to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p> |

Part E. Groundwater Monitoring and Reporting

| # | Groundwater Monitoring Actions with Implementation Deadlines |
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| 51. | <p>Within 60 days following the effective date of this Discharge Permit (by DATE), the Permittee shall install the following new monitoring wells in accordance with the Monitoring Well Proposal submitted to NMED on February 18, 2020 and approved by NMED on February 20, 2020.</p> <ul style="list-style-type: none"> • One monitoring well (PZ-17) located 20 to 50 feet hydrologically downgradient of the Facultative Lagoon System in the natural groundwater of the Dewey Lake Formation and intended to monitor the Facultative Lagoon System. • One monitoring well (PZ-19) located 20 to 50 feet hydrologically downgradient of Evaporation Pond H-19 in the natural groundwater of the Dewey Lake Formation and intended to monitor Evaporation Pond H-19. <p>The Permittee shall complete the wells in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Guidelines</i>, Revision 1.1, March 2011 or alternative methods submitted for approval. The Permittee shall submit construction and lithologic logs to NMED within 120 days of well completion in a cumulative well report.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |
| 52. | <p>Prior to discharging to Brine Salt Storage Pond 4, Salt Storage Pond 5, and Brine Retentions Ponds East and West, the Permittee shall install the following new monitoring wells in accordance to the Monitoring Well Proposal submitted to NMED on February 18, 2020 and approved by NMED on February 20, 2020.</p> <ul style="list-style-type: none"> • One monitoring well (PZ-16) located 20 to 50 feet hydrologically downgradient of Brine Salt Storage Pond 4 in the shallow groundwater and intended to monitor Brine Salt Storage Pond 4. • One monitoring well (PZ-18) located 20 to 50 feet hydrologically downgradient of Salt Storage Pond 5 in the shallow groundwater and intended to monitor Salt Storage Pond 5. <p>The Permittee shall complete the wells in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Guidelines</i>, Revision 1.1, March 2011 or alternative methods submitted for approval. The Permittee shall submit construction and lithologic logs to NMED within 120 days of well completion in a cumulative well report.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |
| 53. | <p>Following the installation of the monitoring wells required by this Discharge Permit, the</p> |

| # | Groundwater Monitoring Actions with Implementation Deadlines |
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| | <p>permittee shall sample groundwater in the wells and analyze the samples for temperature, pH, specific conductance (field measured); and for SO₄, TDS, and Cl.</p> <p>Groundwater sample collection, preservation, transport and analysis shall be performed according to the following procedure:</p> <ol style="list-style-type: none"> a) The pump intake shall be placed in the following manner: fully submerged, within the screened interval, and at least two feet above the base of the screen. b) The drawdown will be minimized such that it will maintain depression of the water level, but not exceed one liter per minute. c) Allow field-measured temperature, pH, and specific conductance to stabilize prior to sample collection. The system is considered stable when pH is within ± 0.5 pH units, temperature, and specific conductance are within $\pm 10\%$ of the last three consecutive readings. d) Obtain samples from the well for analysis. e) Properly prepare, preserve and transport samples. f) Analyze samples in accordance with the methods authorized in this Discharge Permit. <p>The Permittee shall submit a well completion report to NMED within 120 days of well completion in a cumulative well report. A well completion report shall include; the Office of the State Engineer permit, depth-to-most-shallow groundwater measurements, groundwater laboratory analytical results, including the QA/QC summary report and Chain of Custody, and a Facility layout map showing the location and number of each well.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |
| 54. | <p>Within 120 days following the effective date of this Discharge Permit (by DATE), the Permittee shall perform a geographical survey of all newly constructed groundwater monitoring wells approved by NMED for Discharge Permit monitoring purposes in the natural groundwater of the Dewey Lake Formation and in the shallow groundwater. The survey shall be tied or referenced to a U.S. Geological Survey (USGS) or other permanent benchmark.</p> <p>Survey data shall include northing, easting and elevation to the nearest hundredth of a foot and shall be in accordance with the "Minimum Standards for Surveying in New Mexico" (12.8.2 NMAC). The Permittee shall utilize the survey to establish an elevation at the top-of-casing, with a permanent marking indicating the point of elevation. The survey shall bear the seal and signature of a licensed New Mexico professional surveyor (pursuant to the New Mexico Engineering and Surveying Practice Act and the rules promulgated under that authority).</p> |

| # | Groundwater Monitoring Actions with Implementation Deadlines |
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| | <p>Depth-to-most-shallow groundwater shall be measured to the nearest hundredth of a foot in all surveyed wells and referenced to mean sea level, and the data shall be used to develop a groundwater elevation contour map showing the location of all monitoring wells and the direction and gradient of groundwater flow at the Facility. The Permittee shall submit the data and groundwater elevation contour map to NMED within 120 days of the installation of the monitoring wells in a cumulative well report.</p> <p>[Subsection A of 20.6.2.3107 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]</p> |
| 55. | <p>The Permittee shall perform aquifer testing to determine the local hydraulic properties of the aquifer near the monitoring wells required by this Discharge Permit and that contain groundwater within 60 days of the complete installation of each new monitoring well. The purpose of the aquifer testing shall be to quantify the movement of groundwaters in the vicinity of each well or piezometer. The Permittee shall perform aquifer testing in wells in both the shallow groundwater and in the natural groundwater in the Dewey Lake Formation where groundwater is present. Aquifer testing shall estimate hydraulic conductivity, transmissivity, and storage coefficient and shall be performed utilizing procedures previously utilized at the Facility so as to produce comparable results.</p> <p>The Permittee shall submit the measured hydraulic properties for each monitoring well to NMED within 120 days of the installation of the monitoring wells in a cumulative well report.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |

| # | Groundwater Monitoring Conditions |
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| 56. | <p>The Permittee shall measure the depth to groundwater to the nearest hundredth of a foot (0.01 ft) quarterly in the following piezometers/monitoring wells:</p> <ul style="list-style-type: none"> • PZ-1, PZ-2, PZ-3, PZ-4, PZ-5, PZ-6, PZ-7, PZ-9, PZ-10, PZ-11, PZ-12, PZ-13, PZ-14, PZ-15, PZ-16, PZ-17, PZ-18, and PZ-19 • C-2505, C-2506, C-2507, C-2811, and WQSP-6A <p>The Permittee shall submit depth-to-groundwater measurements to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |

| # | Groundwater Monitoring Conditions |
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| 57. | <p>Within the first year of the permit term, the Permittee shall perform sampling in the following groundwater piezometers/monitoring wells and analyze the samples for temperature, pH, specific conductance (field measured); Uranium and combined Radium-226 and Radium-228:</p> <ul style="list-style-type: none"> • PZ-1, PZ-5, PZ-6, PZ-7, PZ-9, PZ-10, PZ-11, PZ-12, PZ-13, PZ-14, PZ-15, PZ-16, PZ-17, PZ-18, and PZ-19 • C-2507, C-2811, and WQSP-6A <p>Monitoring wells WQSP-6A, PZ-17, and PZ-19 are intended to monitor the natural groundwater of the Dewey Lake Formation, which occurs in the subsurface at the southern end of the Facility. All other monitoring wells are intended to monitor the shallow groundwater.</p> <p>The Permittee shall perform groundwater sample collection, preservation, transport and analysis according to the following low-flow sampling procedure:</p> <ol style="list-style-type: none"> a) The pump intake shall be placed in the following manner: fully submerged, within the screened interval, and at least two feet above the base of the screen. b) The drawdown will be minimized such that it will maintain depression of the water level, but not exceed one liter per minute. c) Allow field-measured temperature, pH, and specific conductance to stabilize prior to sample collection. The system is considered stable when pH is within ± 0.5 pH units, temperature, and specific conductance are within $\pm 10\%$ of the last three consecutive readings. d) Obtain samples from the well for analysis. e) Properly prepare, preserve and transport samples. f) Analyze samples in accordance with the methods authorized in this Discharge Permit. <p>The Permittee shall submit analytical results, including the laboratory QA/QC summary report and Chain of Custody, and a Facility layout map showing the location and number of each well to NMED in the next semi-annual monitoring report following sampling.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |
| 58. | <p>The Permittee shall perform semi-annual groundwater sampling in the following groundwater piezometers/monitoring wells and analyze the samples for temperature, pH, specific conductance (field measured); and for SO₄, TDS, and Cl:</p> <ul style="list-style-type: none"> • PZ-1, PZ-5, PZ-6, PZ-7, PZ-9, PZ-10, PZ-11, PZ-12, PZ-13, PZ-14, PZ-15, PZ-16, PZ-17, PZ-18, and PZ-19 |

| # | Groundwater Monitoring Conditions |
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| | <ul style="list-style-type: none"> • C-2507, C-2811, and WQSP-6A <p>Monitoring wells WQSP-6A, PZ-17, and PZ-19 are intended to monitor the natural groundwater of the Dewey Lake Formation, which occurs in the subsurface at the southern end of the Facility. All other monitoring wells are intended to monitor the shallow groundwater.</p> <p>The Permittee shall perform groundwater sample collection, preservation, transport and analysis according to the following low-flow sampling procedure:</p> <ol style="list-style-type: none"> a) The pump intake shall be placed in the following manner: fully submerged, within the screened interval, and at least two feet above the base of the screen. b) The drawdown will be minimized such that it will maintain depression of the water level, but not exceed one liter per minute. c) Allow field-measured temperature, pH, and specific conductance to stabilize prior to sample collection. The system is considered stable when pH is within ± 0.5 pH units, temperature, and specific conductance are within $\pm 10\%$ of the last three consecutive readings. d) Obtain samples from the well for analysis. e) Properly prepare, preserve and transport samples. f) Analyze samples in accordance with the methods authorized in this Discharge Permit. <p>The Permittee shall submit analytical results, including the laboratory QA/QC summary report and Chain of Custody, and a Facility layout map showing the location and number of each well to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |
| 59. | <p>The Permittee shall perform semi-annual groundwater sampling in the following monitoring wells and analyze the samples for TKN and NO₃-N.</p> <ul style="list-style-type: none"> • PZ-17, located south of the Facultative Lagoon System and intended to be located hydrologically downgradient of the Facultative Lagoon System in the natural groundwater of the Dewey Lake Formation. <p>The Permittee shall perform groundwater sample collection, preservation, transport and analysis according to the following low-flow sampling procedure:</p> <ol style="list-style-type: none"> a) The pump intake shall be placed in the following manner: fully submerged, within the screened interval, and at least two feet above the base of the screen. b) The drawdown will be minimized such that it will maintain depression of the water |

| # | Groundwater Monitoring Conditions |
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| | <p>level, but not exceed one liter per minute.</p> <p>c) Allow field-measured temperature, pH, and specific conductance to stabilize prior to sample collection. The system is considered stable when pH is within ± 0.5 pH units, temperature, and specific conductance are within $\pm 10\%$ of the last three consecutive readings.</p> <p>d) Obtain samples from the well for analysis.</p> <p>e) Properly prepare, preserve and transport samples.</p> <p>f) Analyze samples in accordance with the methods authorized in this Discharge Permit.</p> <p>The Permittee shall submit analytical results, including the laboratory QA/QC summary report and Chain of Custody, and a Facility layout map showing the location and number of each well to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |
| 60. | <p>The Permittee shall develop a groundwater elevation, i.e., potentiometric surface, contour map for the shallow groundwater and for the natural groundwater in the Dewey Lake Formation on a semi-annual basis. The Permittee shall use the top of casing elevation data from the monitoring well surveys and quarterly depth-to-groundwater measurements, referenced to mean sea level, obtained during the groundwater sampling required by this Discharge Permit.</p> <p>The groundwater elevation contour maps shall depict the groundwater flow direction based on the groundwater elevation contours. The Permittee shall estimate groundwater elevations between monitoring well locations using common interpolation methods. The Permittee shall use a contour interval appropriate to the data, but the interval shall, in no case, be greater than two feet. Groundwater elevation contour maps shall depict the groundwater flow direction, using arrows, based on the orientation of the groundwater elevation contours, and the location and identification of each monitoring well and contaminant source, e.g., surface impoundment.</p> <p>The Permittee shall submit groundwater elevation contour maps to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |
| 61. | <p>The Permittee shall submit a single table in a paper and electronic format (i.e., EXCEL spreadsheet) of water level measurements and water quality data with only those constituents analyzed and water levels measured during a single event shown in columns to NMED in the semi-annual monitoring reports. The table shall include the following tabulated field measurements: temperature, pH, and electrical conductivity corrected to</p> |

| # | Groundwater Monitoring Conditions |
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| | <p>25 degrees Celsius. The monitoring sites shall be shown in rows on the table, and the second column shall contain the date of the sampling event. Values exceeding standards shall be bolded. Any constituent not analyzed for at a particular site shall be shown as “NA”, any site not sampled shall be shown as “NS” with an associated reason, and any site not measured for water levels shall be shown as “NM” with an associated reason.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |
| 62. | <p>The Permittee shall submit a single table that includes all available groundwater data to date annually to NMED in the semi-annual monitoring reports due February 1st. For each monitoring well, the name of the well shall be entered in the far-left column in a row by itself. Sampling events, beginning with the earliest event first, shall be entered in subsequent rows with the sampling date in the second column and the corresponding analytical data in columns further to the right. Each new sampling event shall be added as an additional row to the existing spreadsheet with the corresponding date of the sampling event noted in the second column next to the monitoring well name.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |

ADDITIONAL STUDIES REQUIRED

| # | Terms and Conditions |
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| 63. | <p>The Permittee’s groundwater monitoring data and reports document that the shallow groundwater beneath the site is contaminated with TDS, chloride, and sulfate above the standards of 20.6.2.3103 NMAC. This data indicates that the contaminated groundwater is primarily anthropogenic, having resulted from leaking impoundments at the Facility, and has spread laterally since the installation of impoundment liners.</p> <p>Within six months following the effective date of this Discharge Permit (by DATE), the Permittee shall submit for NMED approval a site investigation workplan and implementation schedule. The purpose of the site investigation shall be to evaluate the efficacy of existing source controls, to determine the current lateral and vertical extent of the shallow contaminated groundwater, and to identify any potential impacts to the downgradient and naturally occurring groundwater in the Dewey Lake Formation. The site investigation may build upon the previous investigations completed by Daniel B. Stephens and Associates in 2003 and 2008. The Permittee shall implement the site</p> |

| # | Terms and Conditions |
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| | <p>investigation upon NMED approval of the workplan and shall submit a completion report no later than two years following the effective date of this Discharge Permit (by DATE).</p> <p>NMED may require the Permittee to take corrective actions pursuant to 20.6.2.1203 NMAC or 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>[20.6.2.3107 NMAC, 20.6.2.4103 NMAC]</p> |

CONTINGENCY PLAN

| # | Terms and Conditions |
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| 64. | <p>In the event that groundwater monitoring indicates that a groundwater quality standard identified in Section 20.6.2.3103 NMAC is newly exceeded in a monitoring well with no previous exceedances 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 90 days of confirmation of groundwater contamination, the Permittee shall submit to NMED a Corrective Action Plan (CAP) that proposes, at a minimum, source control measures and an implementation schedule. The Permittee shall implement the CAP as approved by NMED.</p> <p>Once invoked (whether during the term of this Discharge Permit, or after the term of this Discharge Permit and prior to the completion of the Discharge Permit closure plan requirements), this condition shall apply until the Permittee has fulfilled the requirements of this condition and groundwater monitoring confirms for a minimum of eight (8) consecutive quarterly samples that the standards of Section 20.6.2.3103 NMAC are not exceeded in groundwater.</p> <p>If the groundwater standard continues to be violated 180 days after the confirmation of groundwater contamination, 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.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]</p> |

| # | Terms and Conditions |
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| 65. | <p>In the event that information available to NMED indicates that a groundwater monitoring well or piezometer is not constructed in a manner consistent with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Guidelines</i>, Revision 1.1, March 2011; contains insufficient water to effectively monitor groundwater quality; or is 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 survey the replacement monitoring well(s)/piezometer(s) within 150 days following notification from NMED.</p> <p>The Permittee shall install replacement wells at locations approved by NMED and completed in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.1, March 2011. The Permittee shall submit construction and lithologic logs, survey data and a groundwater elevation contour map to NMED within 60 days following well completion.</p> <p>The Permittee shall properly plug and abandon the monitoring well requiring replacement upon completion of the replacement monitoring well. The Permittee shall complete the well plugging and abandonment and shall document the abandonment procedures in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.1, March 2011, and all applicable local, state, and federal regulations. The Permittee shall submit well abandonment documentation to NMED within 60 days of completion of well plugging activities.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |
| 66. | <p>In the event that groundwater flow information obtained pursuant to this Discharge Permit indicates that a monitoring well/piezometer is not appropriately located, e.g., hydrologically downgradient of the discharge location it is intended to monitor, the Permittee shall install a replacement well within 180 days following notification from NMED. The Permittee shall survey the replacement monitoring well within 30 days following well installation.</p> <p>The Permittee shall install replacement wells at locations approved by NMED prior to installation and completed in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.1, March 2011. The Permittee shall submit construction and lithologic logs, survey data and a groundwater elevation contour map within 120 days following well completion in a cumulative well report.</p> |

| # | Terms and Conditions |
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| | <p>[Subsection A of 20.6.2.3107 NMAC]</p> |
| 67. | <p>In the event that the site investigation required by this Discharge Permit or an inspection reveals significant damage has occurred or is likely to affect the structural integrity of an impoundment liner or its ability to contain contaminants, the Permittee shall propose to repair or the replacement of the impoundment liner by submitting a Corrective Action Plan (CAP) to NMED for approval. The Permittee shall ensure the CAP to NMED within 30 days after discovery of the damage or following notification from NMED that significant liner damage is evident. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions and 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> |
| 68. | <p>In the event that the required freeboard cannot be preserved in an impoundment, the Permittee shall take actions authorized by this Discharge Permit and all applicable local, state, and federal regulations to restore the required freeboard.</p> <p>In the event that the required freeboard cannot be restored within a period of 72 hours following discovery, the Permittee shall propose actions to be immediately implemented to restore of the required freeboard by submitting a short-term Corrective Action Plan (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 and s is submitted within 15 days following the date when exceedance was discovered. The Permittee shall implement the CAP following approval by NMED.</p> <p>In the event that the short-term corrective actions failed to restore the required freeboard, the Permittee shall propose permanent corrective actions in a long-term CAP submitted to NMED within 90 days following failure of the short-term CAP. Examples include the installation of an additional storage impoundment or a significant/permanent reduction in the volume of wastewater discharged to the impoundment. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions and that implementation of the CAP is initiated following NMED approval.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |
| 69. | <p>In the event the average solids accumulation exceeds one-third of the maximum liquid depth in an impoundment, the Permittee shall submit a plan for NMED's approval for</p> |

| # | Terms and Conditions |
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| | <p>the removal and disposal of the solids. The Permittee shall ensure that the solids removal and disposal plan is submitted to NMED within 120 days of the determination of excess solids. The Permittee shall ensure that the solids removal and disposal plan includes the following information:</p> <ul style="list-style-type: none"> a) A method for removal of the solids to a depth of less than six inches throughout the treatment impoundment in a manner that is protective of the impoundment liner. b) A description of how the Permittee will contain, transport, and dispose of the solids in accordance with all local, state, and federal regulations, including 40 CFR Part 503. c) A schedule for completion of the solids removal and disposal project. <p>The Permittee shall initiate implementation of the plan following approval by NMED.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p> |
| 70. | <p>In the event that a release (commonly known as a “spill”) occurs that is not authorized under this Discharge Permit, 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.</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> <ul 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. 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. <p>Within <u>one week</u> following discovery of the unauthorized discharge, the Permittee shall submit written notification to NMED with 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 corrective action report/plan to NMED describing any corrective actions taken and/or to be taken relative to the unauthorized discharge that includes the following information.</p> <ul style="list-style-type: none"> a) A description of proposed actions to mitigate damage from the unauthorized discharge. |

| # | Terms and Conditions |
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| | <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, the Permittee may be required 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> |
| 71. | <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 Corrective Action Plan 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> |

CLOSURE PLAN

Part A. Generally Applicable to All Discharges

| # | Terms and Conditions |
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| 72. | <p>The Permittee shall close the Facility covered under this Discharge Permit, either wholly or in part, in accordance with the closure plan in the March 10, 2005 Discharge Permit application. Where that closure plan references the closure plans in the WIPP Hazardous Waste Facility Permit and the WIPP Land Management Plan, the Permittee shall use the most up-to-date version of the plans.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |
| 73. | <p>For the purpose of post-closure monitoring, after the Permittee completes closure of all authorized units, the Permittee shall continue groundwater monitoring until the monitoring data confirms for a minimum of eight (8) consecutive quarterly groundwater</p> |

| # | Terms and Conditions |
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| | <p>sampling events that the standards of Section 20.6.2.3103 NMAC are not exceeded. Total dissolved solids and chloride shall meet pre-discharge conditions.</p> <p>If during post-closure monitoring results show that groundwater exceeds a 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 post-closure monitoring may cease, the Permittee shall plug and abandon all monitoring wells and piezometers in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Guidelines</i>, Revision 1.1, March 2011.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |

Part B. Applicable to the Facultative Lagoon System

| # | Terms and Conditions |
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| 74. | <p>The Permittee shall perform the following closure measures in the event the Permittee proposes to permanently close the Facultative Lagoon System</p> <p>Within <u>60 days</u> of ceasing to discharge to the Facultative Lagoon System impoundments, the Permittee shall plug the line leading to the impoundments so that a discharge can no longer occur.</p> <p>Within <u>60 days</u> of ceasing to discharge to the Facultative Lagoon System impoundments, the Permittee shall evaporate or remove wastewater from the impoundments and any other wastewater system components and shall dispose of it in accordance with all local, state, and federal regulations.</p> <p>Within <u>90 days</u> of ceasing to discharge to the Facultative Lagoon System impoundments, 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:</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, hazardous constituents, and any other parameters tested (reported in mg/kg, dry weight basis). c) The method(s) of sludge <i>removal</i> from the impoundments. |

| # | Terms and Conditions |
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| | <p>d) The method(s) of <i>disposal</i> for all of the sludge removed from the impoundments. The method(s) 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 Ground Water Discharge Permitting requirements pursuant to 20.6.2.3104 NMAC that are separate from the requirements of this Discharge Permit.</i></p> <p>e) A schedule for completion of sludge removal and disposal not to exceed two years from the date discharge to the impoundments ceased.</p> <p>Within <u>one year</u> following completion of the sludge removal and disposal, the Permittee shall complete the following closure measures:</p> <p>a) Remove all lines leading to and from the Facultative Lagoon System impoundments, or permanently plug and abandon them in place.</p> <p>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.</p> <p>c) Perforate or remove the impoundment liners.</p> <p>d) Fill the impoundments with suitable fill.</p> <p>e) Re-grade the impoundment site to blend with surface topography, promote positive drainage and prevent ponding.</p> <p>[Subsection A of 20.6.2.3107 NMAC, 40 CFR Part 503]</p> |

Part C. Applicable to the Evaporation Pond H-19, Brine Retention Pond East, Brine Retention Pond West, Storm Water Ponds 1, 2, and 3, and Brine Salt Storage Pond 4

| # | Terms and Conditions |
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| 75. | <p>Upon cessation of operation, the Permittee shall close Evaporation Pond H-19 and Storm Water Ponds 1, 2, and 3. The Permittee shall evaporate or remove the remaining liquids in Storm Water Ponds and shall evaporate the remaining liquids in Evaporation Pond H-19. The Permittee shall sample all sludge to determine if it contains hazardous constituents and then manage and/or dispose of it in accordance with applicable regulations.</p> <p>Within <u>one year</u> following completion of the sludge removal and disposal, the Permittee shall complete the following closure measures:</p> <p>a) Remove or plug all piping and other ancillary components</p> <p>b) Remove or demolish any other components and re-grade area with suitable fill to blend with surface topography, promote positive drainage and prevent ponding.</p> <p>c) Perforate or remove the impoundment liners.</p> |

| # | Terms and Conditions |
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| | <p>d) Fill the impoundments with suitable fill.</p> <p>e) Re-grade the impoundment site to blend with surface topography, promote positive drainage and prevent ponding.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |

Part D. Applicable to the Impoundments Containing Stormwater Runoff in Contact with Salt Stockpiles (Salt Storage Ponds 1, 2, 3, and 5) and to Salt Stockpiles (Salt Cells 1, 2, 3, and 5)

| # | Terms and Conditions |
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| 76. | <p>Upon cessation of operation, the Permittee shall remove all mined salt from the Facility. The Permittee is permitted to use the mined salt as backfill in shafts and as interior fill material in berms and permanent markers after closure. The Permittee shall ensure removal from the site of all mined salt remaining after backfilling and after construction of surface structures. The Permittee shall submit a plan and schedule for salt removal to NMED for approval within 120 days prior to the Facility closure. The WIPP Land Management Plan reflects the Land Withdrawal Act's requirements for disposition of the salt. The WIPP's Hazardous Waste Facility Permit also addresses closure activities that include closure of the salt storage areas in accordance with the provisions of the WIPP Land Management Plan. The Permittee shall ensure that the salt storage area be reclaimed in the manner described in these documents.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |
| 77. | <p>Upon cessation of operation, the Permittee shall close Salt Storage Ponds 1, 2, 3, and 5. The Permittee shall evaporate the remaining liquids in each impoundment. The Permittee shall sample all sludge to determine if it contains hazardous constituents and then manage and/or dispose of in accordance with applicable regulations.</p> <p>Within <u>one year</u> following completion of the sludge removal and disposal, the Permittee shall complete the following closure measures:</p> <p>a) Remove or plug all piping and other ancillary components.</p> <p>b) Remove or demolish any other components and re-grade area with suitable fill to blend with surface topography, promote positive drainage and prevent ponding.</p> <p>c) Perforate or remove the impoundment liners.</p> <p>d) Fill the impoundments with suitable fill.</p> <p>e) Re-grade the impoundment site to blend with surface topography, promote positive drainage and prevent ponding.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p> |

GENERAL TERMS AND CONDITIONS

| # | Terms and Conditions |
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| 78. | <p>RECORD KEEPING - The Permittee shall maintain a written record of:</p> <ul style="list-style-type: none"> • Information and data used to complete the application for this Discharge Permit; • 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: <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 the lifetime of the Discharge Permit. The Permittee shall make the record available to a NMED representative upon request.</p> |

| # | Terms and Conditions |
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| | <p>[Subsections A and D of 20.6.2.3107 NMAC]</p> |
| <p>79.</p> | <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 records required by this Discharge Permit, 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> |
| <p>80.</p> | <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> |
| <p>81.</p> | <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> |
| <p>82.</p> | <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</p> |

| # | Terms and Conditions |
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| | <p>proposed system or process unit for NMED’s 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) as of January 1 and June 30 of each year to NMED.</p> <p>[Subsections A and C of 20.6.2.1202 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]</p> |
| 83. | <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> |
| 84. | <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 required to be maintained under the WQA; • Falsify, tamper with or render inaccurate any monitoring device, method or record required to be 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</p> |

| # | Terms and Conditions |
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| | <p>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> <p>[20.6.2.1220 NMAC, NMSA 1978, §§ 74-6-10.2.A through 74-6-10.2.F]</p> |
| 85. | <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> |
| 86. | <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> |
| 87. | <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 the proposed transferee has received such notification. <p>The Permittee shall continue responsibility e for any discharge from the Facility, until the Permittee transfers both ownership and possession of the Facility to the transferee.</p> <p>[20.6.2.3111 NMAC]</p> |
| 88. | <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</p> |

| # | Terms and Conditions |
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| | <p>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 following the effective date of the Discharge Permit. The Permittee shall remit initial installment payments to NMED no later than 30 days following the effective date of the Discharge Permit; with subsequent installment payments remitted to NMED no later than the anniversary of the effective date of the Discharge Permit.</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 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> |



New Mexico Environment Department Ground Water Quality Bureau Discharge Permit Summary

Facility Information

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|----------------------------------|--|
| Facility Name | Waste Isolation Pilot Plant (WIPP) |
| Discharge Permit Number | DP-831 |
| Legally Responsible Party | Reinhard Knerr, Manager U.S. Department of Energy, Carlsbad Field Office P.O. Box 3090 Carlsbad, NM 88221 (575) 234-7300 |

Treatment, Disposal and Site Information

| | |
|---------------------------|--|
| Primary Waste Type | Domestic and Industrial |
| Facility Type | Federal Agency - U.S. Department of Energy |

Evaporative Impoundment Locations

Domestic Wastewater

| Type | Designation | Description & Comments |
|-------------------------|--------------------|--|
| Settling Impoundment | Settling Lagoon 1 | Primary treatment; 60-mil high-density polyethylene (HDPE) synthetically lined; permitted one foot of freeboard; capacity of 963,214 gallons. |
| Settling Impoundment | Settling Lagoon 2 | Primary treatment; 60-mil HDPE synthetically lined; permitted one foot of freeboard; capacity of 963,214 gallons. |
| Polishing Impoundment | Polishing Lagoon 1 | Passive secondary treatment; 60-mil HDPE synthetically lined; permitted one foot of freeboard; capacity of 414,901 gallons. |
| Polishing Impoundment | Polishing Lagoon 2 | Passive secondary treatment; 60-mil HDPE synthetically lined; permitted one foot of freeboard; capacity of 141,901 gallons. |
| Evaporation Impoundment | Effluent Lagoon A | Effluent storage; 30-mil liner low-density polyethylene (LLDP) synthetically lined; disposal by evaporation; permitted one foot of freeboard; capacity of 566,610 gallons. |
| Evaporation Impoundment | Effluent Lagoon B | Effluent storage; 30-mil LLDP synthetically lined; disposal by evaporation; permitted discharges are domestic waste, brine, purge waters, and miscellaneous industrial non-hazardous wastewater; permitted one foot of freeboard; capacity of 846,257 gallons. |
| Evaporation Impoundment | Effluent Lagoon C | Effluent Storage; 30-mil HDPE synthetically lined; disposal by evaporation; permitted discharges are domestic waste, brine, purge waters, and miscellaneous industrial non-hazardous wastewater; permitted one foot of freeboard; capacity of 846,257 gallons. |



**New Mexico Environment Department Ground Water Quality Bureau
Discharge Permit Summary**

Storm Water Control

| Type | Designation | Description & Comments |
|-------------------------|--------------------|---|
| Storm Water Impoundment | Storm Water Pond 1 | Constructed using a 60-mil HDPE synthetic liner; receives clean non-contact storm water from paved areas, roofs, air conditioner condensate, and water from domestic water lines; disposal by evaporation; permitted one foot of freeboard; capacity of 626,076 gallons. |
| Storm Water Impoundment | Storm Water Pond 2 | Constructed using a 60-mil HDPE synthetic liner; receives clean non-contact storm after from the facilities paved areas, roofs, air conditioner condensate, and draining domestic water lines; disposal by evaporation; permitted one foot of freeboard; capacity of 2,268,330 gallons. |
| Storm Water Impoundment | Storm Water Pond 3 | Constructed using a 60-mil HDPE synthetic liner; receives clean non-contact storm after from the facilities paved areas, roofs, air conditioner condensate, and draining domestic water lines; disposal by evaporation; permitted one foot of freeboard; capacity of 7,211,967 gallons. |

Non-Domestic Wastewater

| Type | Designation | Description & Comments |
|-------------------------|-----------------------|---|
| Evaporation Impoundment | Evaporation Pond H-19 | Constructed using a 36-mil Hypalon synthetic liner; permitted discharges are brine, purge waters, and miscellaneous industrial non-hazardous wastewater; disposal by evaporation; permitted one foot of freeboard; capacity of 346,085 gallons. |
| Evaporation Impoundment | Salt Storage Pond 1 | Constructed using a 60-mil HDPE synthetic liner; disposal by evaporation; permitted one foot of freeboard; capacity of 3,301,634 gallons. |
| Evaporation Impoundment | Salt Storage Pond 2/3 | Constructed using 60-mil HDPE liner, 200-mil geonet drainage layer, and a second 60-mil HDPE liner with a leak detection system; disposal by evaporation; permitted one foot of freeboard; capacity of 21,737,254 gallons |
| Evaporation Impoundment | Salt Storage Pond 5 | To be constructed, 60-mil HDPE liner, 200-mil geonet drainage layer, and a second 60-mil HDPE liner with a leak detection system; disposal by evaporation; permitted two feet of freeboard; capacity of 6,355,404 gallons. |



New Mexico Environment Department Ground Water Quality Bureau Discharge Permit Summary

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| Evaporation Impoundment | Brine Salt Storage Pond 4 | To be constructed, 60-mil HDPE geomembrane double liner with a leak detection system; permitted discharges are clean non-contact stormwater from the facilities paved areas, roofs, air conditioner condensate, draining domestic water lines, and brine from Brine Retention Ponds East and West; Disposal by evaporation; permitted one foot of freeboard; capacity of 8,668,722 gallons. |
| Retention Basin | Brine Retention Pond East | To be constructed, 60-mil HDPE geomembrane double liner with a leak detection system and an epoxy coated concrete bottom; disposal by evaporation; permitted two feet of freeboard; capacity of 46,094 gallons. |
| Retention Basin | Brine Retention Pond West | To be constructed, 60-mil HDPE geomembrane double liner with a leak detection system and an epoxy coated concrete bottom; disposal by evaporation; permitted two feet of freeboard; capacity of 46,094 gallons. |
| Holding tank | Brine Holding Tank | To be constructed, 3,000-gallon fiberglass reinforced plastic holding tank for brine prior to being discharged to either Brine Retention Pond East or West. |

Salt Storage Locations

| Type | Designation | Description & Comments |
|-----------|---|---|
| Salt Pile | Salt Cell 1 | Inactive; approximately 18.8 acres; graded to 2% slope covered with sand and 60 mil HDPE liner and with two feet of native soil; seeded; run-off collects in Salt Storage Pond 1. |
| Salt Pile | Salt Cell 2 | Active; 6.2 acres; run-off area of 326,350 sq. ft.; constructed using of six-inch prepared subgrade, 60-mil HDPE liner, 200-mil drainage layer, eight oz. geotextile fabric covered with two feet of native soil; runoff collects in Salt Storage Ponds 2 and/or 3. |
| Salt Pile | Salt Cell 3 | Active; 5.2 acres; run-off area of 272,850 sq. ft.; constructed using of six-inch prepared subgrade, 60-mil HDPE liner, 200-mil drainage layer, eight oz. geotextile fabric covered with two feet of native soil; runoff collects in Salt Storage Ponds 2 and/or 3. |
| Salt Pile | Salt Cell 5 | To be constructed; 5.09 acres; run-off area of 221,841 sq. ft.; 60-mil HDPE geomembrane liner with a protective native soil layer; runoff collects in Salt Storage Pond 5. |
| Salt Pile | Site and Preliminary Design Validation Pile | Closed in 2000; covered with a geosynthetic liner, six inches of bedding material, and three feet of soil; Seeded. |



New Mexico Environment Department Ground Water Quality Bureau Discharge Permit Summary

Permit Information

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| Original Permit Issued | January 16, 1992 |
| Permit Amended | August 28, 1995 |
| Permit Renewal | July 3, 1997 |
| Permit Amended | June 12, 1998 |
| Permit Amended | January 24, 2000 |
| Permit Renewal | April 29, 2003 |
| Permit Modification | December 22, 2003 |
| Permit Modification | December 29, 2006 |
| Permit Renewal and Modification | July 23, 2008 |
| Permit Renewal | July 29, 2014 |
| Current Action | Permit Renewal and Modification |
| Application Received | December 3, 2018 |
| Public Notice Published | [not yet published] |
| Permit Issued (Issuance Date) | [issuance date] |
| Permitted Discharge Volume | Domestic – 23,000 gallons per day Non-Domestic – 9,586,995 gallons per day |

NMED Contact Information

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| 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 | Avery Young |
| Lead Staff Telephone Number | (505) 827-2909 |
| Lead Staff Email | avery.young@state.nm.us |