

Department of Conservation & Natural Resources

Joe Lombardo, *Governor* James A. Settelmeyer, *Director* Jennifer L. Carr, *Administrator*

ENVIRONMENTAL PROTECTION

FACTSHEET (pursuant to NAC 445A.236)

Permittee Name: CYANCO LLC

5505 CYANCO DRIVE WINNEMUCCA, NV 89445

Permit Number: NS0089024

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: CYANCO, HUMBOLDT

5505 CYANCO DRIVE, WINNEMUCCA, NV 89445 LATITUDE: 40.941111, LONGITUDE: -117.861944 TOWNSHIP: 35 N, RANGE: 37 E, SECTION: 6

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	MONITORING WELL MW-1 (W-0050)	Monitoring Well		40.945044	-117.852019	GROUNDWATER
002	MONITORING WELL MW-2 (W-0060)	Monitoring Well		40.940281	-117.862625	GROUNDWATER
003	MONITORING WELL MW-3 (W-0080)	Monitoring Well		40.941428	-117.862670	GROUNDWATER
004	PRODUCTION WELL AS MONITORING WELL W-0000	Monitoring Well		40.941536	-117.862774	GROUNDWATER
005	PRODUCTION WELL AS MONITORING WELL W-0010	Monitoring Well		40.941568	-117.856811	GROUNDWATER
006	DISCHARGE TO IRRIGATION FIELD - MP-006	External Outfall		40.947265	-117.864405	GROUNDWATER
007	POND	Surface Disposal Site		40.945296	-117.861227	GROUNDWATER

Permit History/Description of Proposed Action

The Permittee, Cyanco LLC seeks renewal of permit #NS0089024 for its sodium cyanide manufacturing plant located in Humboldt County, Winnemucca. Permit #NS0089024 was originally issued in February 1990. The most recent permit was issued on January 1, 2017 and expired on December 31, 2021; the permit has been administratively continued since.

The Permittee operates a sodium cyanide manufacturing plant that produces liquid and solid sodium cyanide products with a nominal concentration of 30-percent sodium cyanide. The process involves the reaction of oxygen (air), methane (natural gas) and ammonia at an elevated temperature (1050 C). The reactants, specifically hydrogen cyanide (HCN) gas, are then sent to a scrubber where HCN gas is absorbed into a caustic soda solution as sodium cyanide.

Facility Overview

Cyanco draws groundwater from two (2) production wells which is processed using three (3) Reverse Osmosis (RO) units. Permeate from the RO units, is used in the production process. The reject from the RO units along with non-contact coolant water, is used to irrigate four agriculture fields that abut the project

site via center pivot irrigation. On-site above-ground tanks and rail cars store liquid ammonia, 50-percent caustic soda solution, and the liquid sodium cyanide product. Any product that does not meet specifications is recycled. Tanks storing hazardous chemicals are stationed within secondary containment that has the capacity to contain 1.5 times the maximum tank storage volume, should a spill occur. The containment area is constructed with a leak detection system that drains to a concrete sump that is periodically inspected for fluid accumulation. All fluid that incidentally enters containment and the sump is either evaporated within lined containment or is returned to the process. Process water and incidental stormwater are discharged to Outfall 007.

Engineered containment basins are present where railcars of hazardous materials are loaded/offloaded and where trucks are loaded. The railcars are stored on a rail spur until they are offloaded. During offloading, they are positioned over an engineered containment sump that is plumbed to another sump. The sump level is monitored by the plant's Distributed Control System (DCS) and alarms are established to alert plant personnel when levels increase during the offload procedure. There are also trip systems in place that will shut down the offload process when sump levels rise above alarm limits or if ammonia vapors are detected in the area surrounding an offloading railcar. The integrity of key piping and tanks is monitored and documented through Cyanco's Mechanical Integrity Program. A computerized maintenance management system records and tracks all maintenance and repair activities. Cyanco states to have an emergency plan in place in compliance with Occupational Safety and Health Administration (OSHA) and U.S. Environmental Protection Agency (EPA) requirements. Groundwater is monitored via three (3) monitoring wells.

The Technical, Compliance, and Enforcement (TCE) Branch of the Bureau of Water Pollution Control requires Operation and Maintenance (O&M) manuals be updated every two (2) permit cycles which equates to every ten (10) years. A revised O&M manual will be due three (3) months after the issuance date of this permit.

Outfall Summary

Outfall 001 - This outfall is associated with monitoring well MW-1. This monitoring well is down-gradient from the abutting fields (Outfall 006) and up-gradient from the facility.

Outfall 002 - This outfall is associated with monitoring well MW-2. This monitoring well is down gradient of the facility and adjacent to the rail lines.

Outfall 003 - This outfall is associated with monitoring well MW-3. This monitoring well is down-gradient from the abutting fields (Outfall 006) and up-gradient from the facility.

Outfall 004 - This outfall is associated with production well as monitoring well W-0000. This monitoring well is down-gradient from the abutting fields (Outfall 006) and cross-gradient from the facility.

Outfall 005 - This outfall is associated with production well as monitoring well W-0010. This monitoring well is down-gradient from the abutting fields (Outfall 006) and cross-gradient from the facility.

Outfall 006 - This outfall is for the discharge of non-contact coolant water and RO reject to four abutting fields

Outfall 007 - This outfall is for the discharge of process water and incidental stormwater to a pond.

Effluent Characterization

The design and operation of this facility meets Nevada Division of Environmental Protection's (NDEP) zero discharge standard of performance in regards to process water. No discharge of fluids or waste is allowed from within production and loading areas of the facility. Both the construction and fluid management plan are deemed sufficient to ensure the avoidance and safety, in case of an unforeseen emergency, in regards to the contaminant discharge to the groundwater. The non-contact coolant water along with reject from the RO units, both sourced from groundwater within the site, is reused for crop irrigation and landscaping at the facility.

Pollutants of Concern

For all outfalls, the pollutants of concern are any pollutants or parameters that are believed to be present in the discharge and could affect or alter the physical, chemical, or biological condition of the receiving water.

For Outfall 006 the concentrations of total dissolved solids (TDS) in the discharge are expected to be

elevated compared to source water.

Receiving Water

Discharge of the non-process water is received by groundwater of the State via percolation. Depth to groundwater at the site is approximately 61 feet. The facility is over one mile from the Humboldt River.

Compliance History

The facility was considered to be in substantial compliance during, with the exception of their O&M, during the 2020 to 2025 reporting period. No exceedances were reported. The O&M manual was last reviewed and approved by the Division on June 5, 2015.

Proposed Effluent Limitations

Non-process coolant water and RO reject are the only effluents authorized for discharge from the facility under this permit.

Groundwater Monitoring Wells Table for Sample Location 001 (Monitoring Well Mw-1 (W-0050)) To Be Reported Quarterly

		Discharge Lir	nitations	N	Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type	
Chloride (as CI)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	001	Quarterly	DISCRT	
Cyanide, total (as CN)	Daily Maximum		<= 0.2 Milligrams per Liter (mg/L)	Groundwater	001	Quarterly	DISCRT	
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	001	Quarterly	DISCRT	
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	001	Quarterly	DISCRT	
Nitrogen, total	Daily Maximum		<= 10.0 Milligrams per Liter (mg/L)	Groundwater	001	Quarterly	DISCRT	
Nitrogen, ammonia total (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	001	Quarterly	DISCRT	
Water level relative to mean sea level ^[2]	Daily Maximum	M&R Feet (ft)		Groundwater	001	Quarterly	CALCTD	
Depth to water level ft below landsurface ^[1]	Daily Minimum	M&R Feet (ft)		Groundwater	001	Quarterly	VISUAL	
pH, maximum	Daily Maximum		<= 9 Standard Units (SU)	Groundwater	001	Quarterly	DISCRT	
pH, minimum	Daily Minimum		>= 6 Standard Units (SU)	Groundwater	001	Quarterly	DISCRT	

Notes (Groundwater Monitoring Wells Table):

- 1. Depth to Groundwater (ft).
- 2. Groundwater Elevation (ft. above MSL).

Groundwater Monitoring Wells Table for Sample Location 002 (Monitoring Well Mw-2 (W-0060)) To Be Reported Quarterly

		Discharge Lir	nitations	N	Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type	
Chloride (as CI)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	002	Quarterly	DISCRT	
Cyanide, total (as CN)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	002	Quarterly	DISCRT	
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	002	Quarterly	DISCRT	
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	002	Quarterly	DISCRT	
Nitrogen, total	Daily Maximum		<= 10.0 Milligrams per Liter (mg/L)	Groundwater	002	Quarterly	DISCRT	
Nitrogen, ammonia total (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	002	Quarterly	DISCRT	
Water level relative to mean sea level ^[2]	Daily Maximum	M&R Feet (ft)		Groundwater	002	Quarterly	CALCTD	
Depth to water level ft below landsurface ^[1]	Daily Minimum	M&R Feet (ft)		Groundwater	002	Quarterly	VISUAL	
pH, minimum	Daily Minimum		>= 6 Standard Units (SU)	Groundwater	002	Quarterly	DISCRT	
pH, maximum	Daily Maximum		<= 9 Standard Units (SU)	Groundwater	002	Quarterly	DISCRT	

Notes (Groundwater Monitoring Wells Table):

- 1. Depth to Groundwater (ft).
- 2. Groundwater Elevation (ft. above MSL).

Groundwater Monitoring Wells Table for Sample Location 003 (Monitoring Well Mw-3 (W-0080)) To Be Reported Quarterly

		Discharge Lir	mitations	N	/lonitorin	g Requirements	
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as CI)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Cyanide, total (as CN)	Daily Maximum		<= 0.2 Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		<= 10.0 Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Nitrogen, ammonia total (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Water level relative to mean sea level ^[2]	Daily Maximum	M&R Feet (ft)		Groundwater	003	Quarterly	CALCTD
Depth to water level ft below landsurface ^[1]	Daily Minimum	M&R Feet (ft)		Groundwater	003	Quarterly	VISUAL
pH, minimum	Daily Minimum		>= 6 Standard Units (SU)	Groundwater	003	Quarterly	DISCRT
pH, maximum	Daily Maximum		<= 9 Standard Units (SU)	Groundwater	003	Quarterly	DISCRT

Notes (Groundwater Monitoring Wells Table):

- 1. Depth to Groundwater (ft).
- 2. Groundwater Elevation (ft. above MSL).

Groundwater Monitoring Wells Table for Sample Location 004 (Production Well As Monitoring Well W-0000) To Be Reported Quarterly

		Discharge Li	mitations	N	Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type	
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT	
Cyanide, total (as CN)	Daily Maximum		<= 0.2 Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT	
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT	
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT	
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT	
Nitrogen, ammonia total (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT	
pH, minimum	Daily Minimum		>= 6 Standard Units (SU)	Groundwater	004	Quarterly	DISCRT	
pH, maximum	Daily Maximum		<= 9 Standard Units (SU)	Groundwater	004	Quarterly	DISCRT	

Groundwater Monitoring Wells Table for Sample Location 005 (Production Well As Monitoring Well W-0010) To Be Reported Quarterly

		Discharge Li	mitations	N	Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type	
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	005	Quarterly	DISCRT	
Cyanide, total (as CN)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	005	Quarterly	DISCRT	
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	005	Quarterly	DISCRT	
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	005	Quarterly	DISCRT	
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	005	Quarterly	DISCRT	
Nitrogen, ammonia total (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	005	Quarterly	DISCRT	
pH, minimum	Daily Minimum		M&R Standard Units (SU)	Groundwater	005	Quarterly	DISCRT	
pH, maximum	Daily Maximum		M&R Standard Units (SU)	Groundwater	005	Quarterly	DISCRT	

NS OTHER - Discharge Limitations Table for Sample Location 006 (Irrigation) To Be Reported Monthly $^{[1][2][4]}$

		Discharge Lin	nitations	Monitoring Requirements				
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type	
Cyanide, total (as CN) ^[3]	Daily Maximum		<= 0.2 Milligrams per Liter (mg/L)	Prior to Irrigation	006	Monthly When Discharging	DISCRT	
Flow rate	Daily Maximum	<= 1.99 Million Gallons per Day (Mgal/d)		Prior to Irrigation	006	Daily When Discharging	METER	
Flow rate	30 Day Maximum	<= 1.70 Million Gallons per Day (Mgal/d)		Prior to Irrigation	006	Daily When Discharging	METER	

Notes (NS OTHER - Discharge Limitations Table):

- 1. This outfall sampling and/monitoring is applicable only when used for discharge during any portion of reporting period.
- 2. If no discharge occurs, please use no data indicator (NODI) code "C" when reporting to NetDMR.
- 3. If cyanide is detected at any concentration in any of the monitoring samples the Bureau of Water Pollution Control shall be notified by the end of the first business day following the detection of cyanide.
- 4. The outfall monitoring location and time are dependent on where and when the discharge is directed for irrigation use between the pivot irrigation fields.

NS OTHER - Discharge Limitations Table for Sample Location 006 (Irrigation) To Be Reported Quarterly^{[1][2][3]}

		Discharge Lir	mitations		Monitorin	g Requirements	
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	006	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	006	Quarterly	DISCRT
Phosphorus, total (as P)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	006	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	006	Quarterly	DISCRT
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	006	Quarterly	DISCRT
pH, minimum	Daily Minimum		M&R Standard Units (SU)	Prior to Irrigation	006	Quarterly	DISCRT
pH, maximum	Daily Maximum		M&R Standard Units (SU)	Prior to Irrigation	006	Quarterly	DISCRT

Notes (NS OTHER - Discharge Limitations Table):

^{1.} The outfall monitoring location and time are dependent on where and when the discharge is directed for irrigation use between the pivot-irrigation fields.

^{2.} This outfall sampling and/monitoring is applicable only when used for discharge during any portion of reporting period.

^{3.} If no discharge occurs, please use no data indicator (NODI) code "C" when reporting to NetDMR.

Ponds / Rapid Infiltration Basins for Sample Location 007 (Pond) To Be Reported Monthly $^{[1][2]}$

		Discharge Lim	nitations	Monitoring Requirements				
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type	
Cyanide, total (as CN)	Daily Maximum		<= 0.2 Milligrams per Liter (mg/L)	Effluent Gross	007	Monthly When Discharging	DISCRT	
Flow rate	Daily Maximum	<= 1.99 Million Gallons per Day (Mgal/d)		Effluent Gross	007	Monthly When Discharging	METER	
Flow rate	30 Day Average	<= 1.70 Million Gallons per Day (Mgal/d)		Effluent Gross	007	Monthly When Discharging	METER	

Notes (Ponds / Rapid Infiltration Basins):

- 1. This outfall sampling and/monitoring is applicable only when used for discharge during any portion of reporting period.
- 2. If no discharge occurs, please use no data indicator (NODI) code "C" when reporting to NetDMR.

Ponds / Rapid Infiltration Basins for Sample Location 007 (Pond) To Be Reported Annually

		Monitoring Requirements					
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Cyanide, total (as CN) ^[1]	Daily Maximum		<= 0.20 Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Alkalinity, bicarbonate (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Alkalinity, total (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Aluminum, total (as Al)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Antimony, total (as Sb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Arsenic, total (as As)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Barium, total (as Ba)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Beryllium, total (as Be)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Cadmium, total (as Cd)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Calcium, total (as Ca)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Chloride (as CI)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT

Ponds / Rapid Infiltration Basins for Sample Location 007 (Pond) To Be Reported Annually

Base	Quantity					
	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT
Daily Maximum		M&R Standard Units (SU)	Effluent Gross	007	Annual	DISCRT
Daily Minimum		M&R Standard Units (SU)	Effluent Gross	007	Annual	DISCRT
	Daily Maximum	Daily Maximum Daily Maximum	Daily Maximum Daily Daily Daily Daily Daily Daily Daily Daily Daily Dai	Daily Maximum Daily Daily Maximum Daily Daily Maximum Daily Daily	Daily Maximum Maximum Daily Maximum Daily Maximum Maximum Daily Daily Maximum Daily Maximum Daily	Daily Maximum Daily

Ponds / Rapid Infiltration Basins for Sample Location 007 (Pond) To Be Reported Annually

		Discharge Lim	nitations		Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type	
Phosphorus, total (as P)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT	
Potassium, total (as K)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT	
Selenium, total (as Se)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT	
Silver, total (as Ag)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT	
Sodium, total (as Na)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT	
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT	
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT	
Thallium, total (as TI)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT	
Uranium, natural, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT	
Zinc, total (as Zn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	007	Annual	DISCRT	

Notes (Ponds / Rapid Infiltration Basins):

Summary of Changes From Previous Permit

Table footnote "If cyanide is detected at any concentration in any of the monitoring samples the Bureau of

^{1.} If cyanide is detected at any concentration in any of the monitoring samples the Bureau of Water Pollution Control shall be notified by the end of the first business day following the detection of cyanide.

Water Pollution Control shall be notified by the end of the first business day following the detection of cyanide. The reporting limit shall be no higher than 0.1 mg/L." has been removed from each of the 7 outfall tables.

Special Approval #2 "The Permittee shall implement measures to ensure current and future monitoring wells are not impacted by onsite crop and landscaping irrigation practices, and discharge to land surface in winter." has been removed.

Outfall 007 has changed from quarterly sampling for Sulfate, total (as SO4), Cyanide, total (as CN), Nitrogen (total), Chloride (as Cl), Solids (TDS), Phosphorus, total (as P), pH (maximum), pH (minimum), and Flow rate to annual sampling for profile 1.

Cyanide and flow rate have been removed from quarterly sampling for outfall 006 and 007 and will be sampled monthly when discharging.

Technology Based Effluent Limitations

Technology based effluent limitations are not applicable to this permit.

Water Quality Based Effluent Limitations

Water quality based effluent limitations are not applicable to this permit.

Proposed Water Quality Based Effluent Limits (monthly/weekly/daily)

Water quality based effluent limitations are not applicable to this permit.

Basis for Effluent Limitations

There are currently no specific water quality standards that have been formally adopted by the State for groundwater. However, the Division has the discretion to implement effluent limitations outside water quality standards per Nevada Administrative Code (NAC) 445A.243, which states, "In establishing an effluent limitation to carry out the policy of this State set forth in NRS 445A.305, consideration must be given to, but is not limited by the following: ... (2) the need for standards that specify by chemical, physical, biological or other characteristics the extent to which pollution by various substances will not be tolerated." The constituents listed in Profile 1 have been vetted by the Division and have been included in groundwater discharge permits for many years as a means of regulating groundwater quality. Per Nevada Revised Statute (NRS) 445A.490, "No permit may be issued which authorizes any discharge or injection of fluids through a well into any waters of the State: ...(3) which would result in the degradation of existing or potential underground sources of drinking water."

Anti-backsliding

Outfall 007 has changed from quarterly sampling for Sulfate, total (as SO4), Cyanide, total (as CN), Nitrogen (total), Chloride (as Cl), Solids (TDS), Phosphorus, total (as P), pH (maximum), pH (minimum), and Flow rate to annual sampling for Profile 1 and Sulfate, total (as SO4).

These changes do not make the permit less restrictive and will allow the e-permitting system to better track outfalls that discharge intermittently.

Antidegradation

The Division has developed an antidegradation regulation that is applied on a statewide basis, and which meets the statutory requirements of Nevada's water pollution control law found at Nevada Revised Statute (NRS) 445A.520 and NRS 445A.565 and is consistent with the federal antidegradation policy found at Title 40 in the Code of Federal Regulations (CFR) § 131.12. The objective of the Division's antidegradation regulation is to prevent degradation of Nevada's surface waters and maintain the unique attributes and special characteristics and water quality associated with high-quality waters.

As this permit is for discharges to groundwater, and not surface water, the new antidegradation rule is not applicable. There are currently no specific water quality standards that have been formally adopted by the State for groundwater, however, data reviewed during the renewal process does not indicate the potential

for degradation of the groundwater from the RO reject and non-contact cooling water discharged within the compliance limits of the proposed permit.

Special Conditions

See the Special Approvals / Conditions Table below.

SA - Special Approvals / Conditions Table

Item #	Description
1	Permittee shall continue to submit all Discharge Monitoring Reports (DMRs) electronically through the Nevada NetDMR website: https://netdmr.ndep.nv.gov/netdmr/public/home.htm by the first reporting period that follows the
	issuance of this permit.

Discharges From Future Outfalls/ Planned Facility Changes

No outfalls have changed; however, a newly permitted boiler (NDEP Bureau of Air Pollution Control) has been installed and will discharge blowdown to outfall 007.

Corrective Action Sites

There are no (0) open and two (2) closed Bureau of Corrective Actions remediation sites located within a one-mile radius of the facility. The two (2) closed sites (Spill # 110103-02 and 230601-01) are within the project site.

Wellhead Protection Program

The nearest Public Water Supply (PWS) well is located approximately 3 miles to the east of the outfalls. The outfalls are not located within a Wellhead Protection Area, which represents an approximate 10-year capture zone of a well, or within a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a PWS well.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit for review and approval two (2) copies (one (1) electronic and one (1) hard copy) of a new/updated Operation and Maintenance (O&M) Manual, prepared in accordance with the Division's WTS2A guidance: Minimum Information Required for an Operations and Maintenance Manual and wet stamped by a licensed Nevada professional engineer (P.E.).	1/1/2026

Deliverable Schedule:

DLV- Deliverable Schedule for Reports, Plans, and Other Submittals

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	1/28/2026
2	Annual Report	Annually	1/28/2026
3	Annual DMRs	Annually	1/28/2026

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being mailed to interested persons on our mailing list and will be posted on our website at https://ndep.nv.gov/posts. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. 10/20/2025, a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination:

The Division has made the tentative determination to issue/re-issue the proposed 5-year permit.

Prepared by: **Aaron Park** Date: 9/19/2025

Title: Staff II, Associate Engineer