

Nevada Division of Environmental Protection

AUTHORIZATION TO DISCHARGE

In compliance with Chapter 445A of the Nevada Revised Statutes,

Nevada Department of Corrections
P O Box 7011
Carson City NV 89702

is authorized to discharge from a facility located at

Southern Desert Correctional Center
Indian Springs
Clark County
Latitude 36° 31' 05" North
Longitude 115° 32' 26" West
Township 16 South - Range 57 East - Section 33

to receiving waters named: groundwater

in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof.

This permit shall become effective on: November 20, 2001

This permit and the authorization to discharge shall expire at midnight November 20, 2006.

This permit was modified: **MONTH XX, 2004**

Signed this **XXxx** day of **MONTH**, 2004.

Robert J. Saunders
Staff Engineer
Bureau of Water Pollution Control

PART I

Background: Wastewater treatment facilities serving the prison complex at Southern Desert Correctional Center consist of headworks, treatment ponds, and rapid infiltration basins. Failure of the infiltration function due to a subsurface caliche layer brought about the need to construct additional basins. The permit was modified to allow effluent disposal via overland flow during the construction period for the new rapid infiltration basins.

I.A. EFFLUENT LIMITATIONS, MONITORING REQUIREMENTS AND CONDITIONS

I.A.1.a. During the period beginning on the effective date of this permit, and lasting until the permit expires, the permittee is authorized to discharge treated effluent from secondary treatment ponds #1 (North) and #4 (South) to groundwater via 5 (existing) and ultimately 12 (7 additional) rapid infiltration basins. The discharge shall be limited and monitored by the permittee as specified below.

Table I.A.1.a

Parameter	Discharge Limitations		Monitoring Requirements	
	30 Day Average	Daily Maximum	Measurement Frequency	Sample Type
Flow, MGD (influent) ⁽¹⁾	0.43 (0.6)	0.58 (0.9)	continuous	flow meter
CBOD, mg/l (influent)	monitor & report		monthly	discrete
CBOD, mg/l (#1-2 ponds effluent)	30	45	monthly	discrete
CBOD, mg/l (#3-4 ponds effluent)	30	45	monthly	discrete
TSS, mg/l (influent)	monitor & report		monthly	discrete
TSS, mg/l (#1-2 ponds effluent)	90		monthly	discrete
TSS, mg/l (#3-4 ponds effluent)	90		monthly	discrete
pH, std. units (#1-2 ponds effluent)	between 6 and 9		monthly	discrete
pH, std. units (#3-4 ponds effluent)	between 6 and 9		monthly	discrete

(1) Limits in parentheses will apply upon completion of Phase 2 upgrades to ponds #3-4. Until Phase 2 has been completed, Phase 1 flow limits of 0.43 MGD (30 day average) and 0.58 MGD (daily maximum), will apply.

Note: Influent flow is wastewater flow into the headworks but prior to discharge to the four ponds. Separate effluent samples shall be collected from Ponds#1-2 (North) and #3-4 (South), prior to discharge into the rapid infiltration basins.

The operator shall inspect the site a minimum of once per week. The liquid level depth in each of the four treatment ponds shall be monitored weekly with staff gauge measurements. A minimum freeboard of 3.0 ft shall be maintained in each pond at all times. An operations logbook, including the name of the operator, date, time, and general condition of the wastewater treatment and disposal facility, must be kept and maintained on the site premises.

- I.A.1.b. During the period beginning on the modification date of this permit, and lasting until the (7) new rapid infiltration basins are constructed and ready for use, the permittee is authorized to discharge secondary - treated effluent from the rapid infiltration basins to land application via overland flow at an adjacent site. Samples shall be taken at the point of discharge from the rapid infiltration basins prior to land application. The discharge shall be limited and monitored by the Permittee as specified below.

Table I.A.1.b

Parameter	Discharge Limitations	Monitoring Requirements	
		Measurement Frequency	Sample Type
	Daily Maximum		
Discharge Flow, MGD	0.5	continuous	pump timer
Fecal Coliform, MPN/100 ml	monitor & report	every two weeks	discrete
CBOD, mg/l	monitor & report	every two weeks	discrete
TSS, mg/l	monitor & report	every two weeks	discrete
Total Nitrogen as N, mg/l	monitor & report	every two weeks	discrete
Nitrate as N, mg/l	monitor & report	every two weeks	discrete
Visual Monitoring (during periods of discharge)	monitor & report	twice a day	visual determination

- i. The land application facilities shall be constructed and operated in accordance with plans approved by the Division. The plans must be approved by the Division prior to the start of construction. The Division must approve all changes to the approved plans.
- ii. The land application site shall be on property controlled and restricted by the Department of Corrections. Public access shall be prohibited.
- iii. The application rate shall be in accordance with plans submitted to the Division.
- iv. Effluent application shall be conducted in a manner that prevents erosion and keeps standing water to a minimum.

- v. Tailwater shall be controlled and contained at all times. A suitable berm shall be constructed along the down gradient perimeter. Run off of effluent from the land application site is prohibited.
- vi. The Permittee shall inform all staff working on this project about the potential hazards of working with effluent, and the recommended hygiene procedures.

I.A.2. There shall be no objectionable odors from the collection system, treatment ponds or effluent disposal area.

I.A.3. There shall be no discharge of substances that would cause a violation of the drinking water standards in groundwater.

I.A.4. Sewage Sludge

- a. All solid waste screening and sewage sludge shall be disposed or reused in a manner approved by the Division and the County.
- b. Facilities that generate and prepare sewage sludge for reuse shall monitor the concentrations of arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc and report in mg/dry kg of sludge as outlined below.

Dry Sludge Reuse Rate, metric tons/yr	Frequency
0 < rate < 290	once per year
290 ≤ rate < 1,500	once per quarter
1,500 ≤ rate < 15,000	once per two month period
15,000 ≤ rate	once per month

A monitoring report which includes the analytical data, volume reused; and the name, address, phone number, permit number, and contact for the facility where sludge was disposed or reused; shall be submitted with the Discharge Monitoring Reports (DMR). Facilities which sample annually shall submit the information with the 4th quarter DMR.

I.A.5. There shall be no discharge from the collection system, treatment ponds, or effluent disposal area except as authorized by this permit.

I.A.6. The treatment ponds and effluent disposal area shall be fenced and posted.

- I.A.7. The collection, treatment, and effluent disposal facilities shall be constructed in conformance with plans approved by the Division. The plans must be approved by the Division prior to the start of construction. All changes to the approved plans must be approved by the Division.
- I.A.8. The facility shall be operated in accordance with the Operations and Maintenance (O&M) Manual which must be approved by the Division.
- I.A.9. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- I.A.10. The Permittee shall remit an annual review and services fee in accordance with NAC 445A.232 starting July 1, 2002 and every year thereafter until the permit is terminated.
- I.A.11. The treatment facility shall be operated by a Nevada Certified Class I (or higher) Operator. The Discharge Monitoring Reports (DMRs) must be signed by the facilities highest ranking certified operator. The first DMR submitted under this permit must include the written designation of certified operator (required by Part III A.2) as the authorized representative to sign the DMRs. If the certified operator in responsible charge changes, a new designation letter must be submitted.
- I.A.12. **Schedule of Compliance**
 - a. The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications which the Administrator may make in approving the schedule of compliance.
 - b. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.
 - c. Written notification that the Permittee has ceased the overland flow disposal and directed the discharge to the new rapid infiltration basins shall be provided to the Division within one week of that occurrence.
 - d. Within 90 days of the date specified in paragraph (c) above the Permittee shall submit an updated operations and maintenance manual to document current procedures.

I.B. MONITORING AND REPORTING

- I.B.1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. Analyses shall be performed by a State of Nevada certified laboratory. Results from this laboratory must accompany the Discharge Monitoring Report.
- I.B.2. **Reporting**

a. **Quarterly Reporting**

Monitoring results obtained during the previous three (3) months shall be summarized for each month and reported on a Discharge Monitoring Report (DMR) form received in this office no later than the 28th day of the month following the completed reporting period. Any data submitted in excess of the limits in Part I.A.1 must be explained by a narrative. The reporting periods are January through March, April through June, July through September, and October through December. The first report is due on January 28, 2002. An original signed copy of these, and all other reports required herein, shall be submitted to the State at the following address:

Diana Silsby, Compliance Coordinator
Bureau of Water Pollution Control
Nevada Division of Environmental Protection
333 W Nye Lane
Carson City NV 89706-0851

b. **Annual Report**

The fourth quarter report shall contain a plot, of the monitored quantity (y-axis) versus date (x-axis) for each analyzed constituent. The plot shall include data from the preceding five years, if available. Any data point from the current year that is greater than the limits in Part I.A.1 must be explained by a narrative.

I.B.3. **Definitions**

- a. The "30 day average discharge" means the total discharge during a month divided by the number of samples in the period that the facility was discharging. Where less than daily sampling is required by this permit, the 30 day average discharge shall be determined by the summation of all the measured discharges divided by the number of samples during the period when the measurements were made.
- b. The "daily maximum" is the highest measurement during the monitoring period.
- c. The "30 day average concentration", other than for fecal coliform bacteria, means the arithmetic mean of measurements made during a month. The "30 day average concentration" for fecal coliform bacteria means the geometric mean of measurements made during a month. The geometric mean is the " n^{th} " root of the product of " n " numbers. Geometric mean calculations where there are non-detect results for fecal coliform shall use one half the detection limit as the value for the non-detect results.

If fewer than four measurements are made during a month, the compliance or noncompliance with the 30 day average concentration limitation shall not be determined.

- d. A "discrete" sample means any individual sample collected in less than 15 minutes.
- e. For flow rate measurements a "composite" sample means the arithmetic mean of no fewer than six individual measurements taken at equal time intervals for 24 hours, or for the duration of discharge, whichever is shorter.

For other than flow rate a "composite" sample means a combination of no fewer than six individual flow-weighted samples obtained at equal time intervals for 24 hours, or for the duration of discharge, whichever is shorter. Flow weighted sample means that the volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling.

I.B.4. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations (40 CFR, Part 136) published pursuant to Section 304(h) of the Clean Water Act, under which such procedures may be required unless other procedures are approved by the Division.

I.B.5. Recording the Results

For each measurement or sample taken pursuant to the requirements of this permit, the Permittee shall record the following information:

- a. the exact place, date, and time of sampling
- b. the dates the analyses were performed
- c. the person(s) who performed the analyses
- d. the analytical techniques or methods used, and
- e. the results of all required analyses.

I.B.6. Additional Monitoring by Permittee

If the Permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report form. Such increased frequency shall also be indicated.

I.B.7. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years, or longer if required by the Administrator.

I.B.8. Modification of Monitoring Frequency and Sample Type

After considering monitoring data, stream flow, discharge flow and receiving water conditions, the Division, may for just cause, modify the monitoring frequency, sample type, or both, by issuing an order to the Permittee.

- I.B.9. All laboratory analyses conducted in accordance with this discharge permit must have detection at or below the permit limits.

PART II

II.A. MANAGEMENT REQUIREMENTS

II.A.1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, or treatment modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit issuing authority of such changes. Any changes to the permitted treatment facility must comply with Nevada Administrative Code NAC 445A.283 to 445A.285. Pursuant to NAC 445A.263, the permit may be modified to specify and limit any pollutants not previously limited.

II.A.2. Facilities Operation

The Permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities, collection systems or pump stations installed or used by the Permittee to achieve compliance with the terms and conditions of this permit.

II.A.3. Adverse Impact

The Permittee shall take all reasonable steps to minimize any adverse impact to receiving waters resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

II.A.4. Noncompliance, Unauthorized Discharge, Bypassing and Upset

- a. Any diversion, bypass, spill, overflow or discharge of treated or untreated wastewater from wastewater treatment or conveyance facilities under the control of the Permittee is prohibited except as authorized by this permit. In the event the Permittee has knowledge that a diversion, bypass, spill, overflow or discharge not authorized by this permit is probable, the Permittee shall notify the Division immediately.
- b. The Permittee shall notify the Division within twenty four (24) hours of any diversion, bypass, spill, upset, overflow or release of treated or untreated

discharge other than that which is authorized by the permit. A written report shall be submitted to the Administrator within five (5) days of diversion, bypass, spill, overflow, upset or discharge, detailing the entire incident including:

1. Time and date of discharge
 2. Exact location and estimated amount of discharge
 3. Flow path and any bodies of water which the discharge reached
 4. The specific cause of the discharge, and
 5. The preventive and corrective actions taken.
- c. The following shall be included as information which must be reported within 24 hours: any unanticipated bypass which exceeds any effluent limitation in the permit; any upset which exceeds any effluent limitation in the permit; and violation of a limitation for any toxic pollutant or any pollutant identified as the method to control a toxic pollutant.
- d. The Permittee shall report all instances of noncompliance not reported under Part II.A.4.b. at the time monitoring reports are submitted. The reports shall contain the information listed in Part II.A.4.b.
- e. An "upset" means an incident in which there is unintentional and temporary noncompliance with the permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- f. In selecting the appropriate enforcement option, the Division shall consider whether or not the noncompliance was the result of an upset.
- g. The burden of proof is on the Permittee to establish that an upset occurred. In order to establish that an upset occurred, the Permittee must provide, in addition to the information required under paragraph II.A.4.b. above, properly signed contemporaneous logs or other documentary evidence that:
1. The facility was at the time being properly operated as required in paragraph II.A.2. above, and
 2. All reasonable steps were taken to minimize adverse impacts as required by paragraph II.A.3. above.

II.A.5. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of waste waters shall be disposed of in a manner that will prevent any pollution from such materials from entering any navigable waters.

II.A.6. Safeguards to Electric Power Failure

- a. Provide at the time of discharge an alternative power source sufficient to operate the wastewater control facilities, or

- b. Halt or reduce all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

II.B. RESPONSIBILITIES

II.B.1. Right of Entry

The Permittee shall allow the Administrator and/or his authorized representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit, and
- b. At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to perform any necessary sampling to determine compliance with this permit or to sample any discharge.

II.B.2. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the Permittee shall notify the succeeding owner or controller of the existence of this permit, by letter, a copy of which shall be forwarded to the Administrator. All transfer of permits shall be approved by the Division.

II.B.3. Availability of Reports

Except for data determined to be confidential under NRS 445A.665, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of the Division. Effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NRS 445A.710.

II.B.4. Furnishing False Information and Tampering with Monitoring Devices

Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained by the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation or order issued pursuant thereto, or who falsifies, tampers with or knowingly renders inaccurate any monitoring device or method required to be maintained under the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation or order issued pursuant thereto, is guilty of a gross misdemeanor and shall be punished by a fine of not more than \$10,000 or by imprisonment. This penalty is in addition to any other penalties, civil or criminal, provided pursuant to NRS 445A.300 to 445A.730, inclusive.

- II.B.5. Penalty for Violation of Permit Conditions**
Nevada Revised Statutes NRS 445A.675 provides that any person who violates a permit condition is subject to administrative and judicial sanctions as outlined in NRS 445A.690 through 445A.705.
- II.B.6. Permit Modification, Suspension or Revocation**
After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
- a. violation of any terms or conditions of this permit
 - b. obtaining this permit by misrepresentation or failure to disclose fully all relevant facts, or
 - c. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- II.B.7. Toxic Pollutants**
Notwithstanding Part II.B.6. above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under NAC 445A for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the Permittee so notified.
- II.B.8. Liability**
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable Federal, State or local laws, regulations, or ordinances.
- II.B.9. Property Rights**
The issuance of this permit does not convey any property rights, in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
- II.B.10. Severability**
The provisions of this permit are severable, and if any provision of this permit, or the application of any provisions of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART III

III.A. OTHER REQUIREMENTS

III.A.1. Reapplication

If the Permittee desires to continue to discharge, he shall reapply not later than 180 days before this permit expires on the application forms then in use. The application shall be accompanied by the renewal application fee required by NAC 445A.232.

III.A.2. Signatures, certification required on application and reporting forms

- a. All applications, reports, or information submitted to the Administrator shall be signed and certified by making the following certification.

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

- b. All applications, reports or other information submitted to the Administrator shall be signed by one of the following:
- i. A principal executive officer of the corporation (of at least the level of vice president) or his authorized representative who is responsible for the overall operation of the facility from which the discharge described in the application or reporting form originates; or
 - ii. A general partner of the partnership; or
 - iii. The proprietor of the sole proprietorship; or
 - iv. A principal executive officer, ranking elected official or other authorized employee of the municipal, state or other public facility.

c. Duly Authorized Representative

All Discharge Monitoring Reports and any other information required by this permit or requested by the Administrator shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- i. The authorization is made in writing by a person described in paragraph (a) of this section
- ii. The authorization specifies either an individual or a position having responsibility for environmental matters for the company, and
- iii. The authorization is submitted to the Division.

- d. **Changes to Authorization.** If an authorization under paragraph c. of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization

satisfying the requirements of paragraph b. of this section must be submitted to the Administrator prior to or together with any reports, information, or applications to be signed by an authorized representative.

III.A.3. Holding Pond Conditions

If any wastewater from the permittee's facility is placed in ponds, such ponds shall be located and constructed so as to:

- a. contain with no discharge the once-in-twenty-five year 24 hour storm at said location
- b. withstand with no discharge the once-in-one-hundred year flood of said location, and
- c. prevent escape of wastewater by leakage other than as authorized by this permit.

III.A.4. Flow Rate Notification

The Permittee shall notify the Administrator, by letter, not later than ninety (90) days after the 30-day average daily influent flow rate first equals or exceeds 85% of the design treatment capacity of the permittee's facility given in Part I.A. above. The letter shall include:

- a. The 30-day average daily influent flow rate
- b. The maximum 24-hour flow rate during the 30-day period reported above and the date the maximum flow occurred
- c. The permittee's estimate of when the 30-day average influent flow rate will equal or exceed the design treatment capacity of the permittee's facility
- d. A status report on the treatment works which will outline but not be limited to past performance, remaining capacity of the limiting treatment and disposal units or sites, past operational problems and improvements instituted, modifications to the treatment works which are needed to attain the permitted flow rate due to changing site specific conditions or design criteria; and
- e. The permittee's schedule of compliance to provide additional treatment capacity before the 30-day average daily influent flow rate equals the present design treatment capacity of the permittee's facility.