

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION  
FACT SHEET  
(Pursuant to NAC 445A.236)

**Permittee** Harrah's Hotel Casino  
P O Box 10  
Reno NV 89520

**Permit No.** NV0021598

**Facility** Harrah's Hotel Casino  
219 N Center St  
Reno  
39° 31' 37" N  
119° 48' 40" W  
T19N R19E S11

**General** This permit is for dewatering discharges from subgrade portions of Harrah's Hotel Casino in downtown Reno. This complex consists of several buildings on either side of N Center St, between E 2nd St and E Commercial Row. Three passive collection systems are in place, serving the South Tower, East Tower, and parking garage. The East Tower system hasn't discharged for many years due to an apparent lowering of the water table in the area. Treatment is provided because of a regional plume, consisting of chloroform and PCE in the low parts per billion range at this location. Two separate treatment systems are in place, one serving South Tower and the other the parking garage. Both systems use air strippers. Discharge is to the nearby Truckee River via the storm drain.

**Receiving Water Characteristics** The storm drain discharges to Truckee River, and the standards set at the nearest downstream control point, "Truckee River at East McCarran" (NAC 445A.186), apply. In addition, the state wide standards for toxic materials, NAC 445A.144, are applicable, and Total Maximum Daily Loads (TMDLs) for Truckee River have been established for total nitrogen, total phosphorus, and TDS.

**Rationale for Permit Requirements** The discharge limits, monitoring requirements, and a data summary are presented in the tables below and form the basis for the discussion that follows.

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Table I.A.1.a Discharge Limitations and Monitoring Requirements

Parameter	Discharge Limitation	Monitoring Requirements		
		Sample Location	Frequency	Sample Type
Flow Rate	499,000 gpd <sup>1</sup>	i, ii, iii	-	-
Total Trihalomethanes	100 µg/l	i, ii, iii	quarterly	discrete
Tetrachloroethene (PCE)	5 µg/l	i, ii, iii	quarterly	discrete
Total Kjeldahl Nitrogen	m&r	i, ii, iii	quarterly	discrete
Nitrite + Nitrate as N	m&r	i, ii, iii	quarterly	discrete
Total Nitrogen	m&r	i, ii, iii	quarterly	discrete
Total Phosphorus	m&r	i, ii, iii	quarterly	discrete
pH	6.5 to 9 su	i, ii, iii	quarterly	discrete
TDS	m&r	i, ii, iii	quarterly	discrete
Metals <sup>2</sup>	m&r	i, ii, iii	annual	discrete

i = South Tower, ii = parking garage, iii = East Tower, m&r = monitor & report

1. Report average gpd per month per outfall and total
2. Samples shall be collected in the 3rd quarter. Analyses shall be for total metals and include antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, copper, fluoride, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, selenium, silver, thallium, zinc, and hardness as calcium carbonate.

Monitoring Data

Averages from samples collected January 2006 through December 2008  
 mg/l except as noted

	South Tower	Parking Garage	East Tower
flow, gpd	192,450	54,875	0
TKN	0.64	0.55	
NO3-N	1.9	2.6	
TN	2.16	2.82	
TP	0.15	0.16	
TDS	282	274	
pH, su	8.4	8.2	

Influent Data

from EPA methods 8260 and 8015

	South Tower		Parking Garage	
	2006	2009	2006	2009
chloroform, µg/l	5.3	5.1	13	7.1
tetrachloroethene (PCE), µg/l	28	26	9.5	7.3
TPH, mg/l	-	<0.5	-	<0.5

FLOW, 499,000 gpd: Flow data is necessary for determining impacts to the receiving water from the various constituents present. The total average flow is 250,000 gpd. The limit has been set at the top of the associated fee category to accommodate any operational changes.

TOTAL TRIHALOMETHANES, 100 µ/l: This is the toxics standard for the municipal or domestic supply beneficial use, and is included due to the presence of chloroform in the regional plume. These constituents were not detected in the air stripper effluent over the previous permit term.

TETRACHLOROETHENE (perchloroethene - PCE), 5 µg/l: This is the Maximum Contaminant Level (MCL) for drinking water, and is included due to its presence in the regional plume. The constituent was not detected in the air stripper effluent over the previous permit term.

NITROGEN and PHOSPHORUS: These are included based on the TMDLs. Their presence in the aquifer is likely due at least in part to the sanitary sewer system in this older urban environment. Limits aren't used in general because the limited occurrence wouldn't normally justify the level of treatment required. Species specific information follows.

TOTAL KJELDAHL NITROGEN (TKN), m&r: TKN is the sum of the organic forms plus ammonia, and it's needed as part of the determination of total nitrogen.

NITRITE (NO<sub>2</sub>) + NITRATE (NO<sub>3</sub>): These are usually compared to the MCL for nitrate, 10 mg/l. Nitrite rapidly converts to nitrate in the environment. This is needed as part of the determination of total nitrogen.

TOTAL NITROGEN (TN), m&r: TN is determined from the sum of separate analyses for Kjeldahl, and nitrite/nitrate. The TMDL is 1000 lb/day. At 250,000 gpd and 2.31 mg/l (weighted average), the contribution from this source would be 4.82 lb/day.

TOTAL PHOSPHORUS, m&r: The TMDL is 214 lb/day. At 250,000 gpd and 0.15 mg/l (weighted average), the contribution from this source would be 0.31 lb/day.

pH, 6.5 - 9.0, standard units: This is the control point standard, based on beneficial uses. Although not controlled by a treatment process, an

excursion would represent some type of mishap and could be corrected fairly easily.

TDS, m&r: This is included due to the control point standard and TMDL. The standard is 90 mg/l, based on existing quality, and the TMDL is 149,388 lb/day. At 250,000 gpd and 280 mg/l (weighted average), the contribution from this source would be 584 lb/day. This parameter is not limited based on natural occurrence, dilution, and difficulty of treatment.

METALS, monitor & report: These are of interest because of their environmental effects in general. This type of data has not been collected on a regular basis previously. They're not limited based on natural occurrence, dilution, and difficulty of treatment.

**Changes from the Previous Permit** Limits for non-treated parameters have been removed. Ammonia and TPH analyses have been removed based on a lack of detections. Metals analyses have been added.

**Compliance History** There haven't been any significant non-compliance issues over the previous permit term.

**Schedule of Compliance** There are no specific items required at the time of permit issuance.

**Procedures for Public Comment** Notice of the Division's intent to issue discharge permit NV0021598 is being sent to Reno Gazette Journal for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit must do so in writing within (30) days of the publication date. The comment period can be extended at the discretion of the Administrator. The deadline for comments is 5:00 pm Tuesday August 25, 2009, although letters postmarked on that date will also be accepted.

A public hearing on the proposed determination can be requested by the applicant, any affected state or interstate agency, the Regional Administrator, or any interested agency, person, or group of persons. The request must be filed within the comment period and indicate the interest of the person filing the request and the reason a hearing is warranted. Public hearings granted by the Division are conducted in

accordance with NAC 445A.238. The final determination of the Division may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

**Proposed Determination** The Division has made the tentative determination to renew the proposed discharge permit for a five year term.

Prepared by: Robert J Saunders  
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