

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

**Permittee** Riviera Hotel Casino  
2901 Las Vegas Blvd South  
Las Vegas NV 89109

**Permit No.** NV0023248

**Facility** Riviera Hotel Casino  
2901 Las Vegas Blvd South  
(east side, between E Desert Inn Rd and E Sahara Ave)  
Latitude 36° 08' 10" N  
Longitude 115° 09' 45" W  
T21S R61E S13  
<http://www.rivierahotel.com/>

**General** The valet portion of the parking garage here is below grade and was previously dewatered based on structural/nuisance considerations. The situation has changed, however, with the advent of construction at the adjacent Fontainebleau site (NV0023566), where pumping from 109 wells has resulted in lowering the water table approximately 20 ft. Consequently, there has been no dewatering flow at the Riviera since January 2007. Regardless, this is a temporary situation, and the permit is being renewed at this time in anticipation of a return to the pre-existing condition.

A series of perforated pipe trenches with 2 inch rock is in place to intercept groundwater below the floor slab. These trenches connect to the floor drain piping. The floor is split into two drainage areas, with each one terminating at an oil water separator, followed by a sump. The sumps are manifolded together, and the pumped discharge reaches a drop inlet on Las Vegas Blvd via a 4 inch pipe.

Site characterization following a generator diesel tank leak showed less than 1/2 in free product and very little in the way of dissolved constituents. The lowered water table has, however, left the project wells dry, and the remedial activities, being conducted pursuant to the requirements of the Division's Bureau of Corrective Actions, have been temporarily halted.

**Receiving Water Characteristics** The storm drain discharges to Flamingo Wash, and the standards set at the nearest downstream

control point, "Las Vegas Wash at Telephone Line Road" (NAC 445A.199), apply. In addition, the state wide standards for toxic materials, NAC 445A.144, are applicable, and Total Maximum Daily Loads (TMDLs) for Las Vegas Wash have been established for total phosphorus and ammonia.

**Rationale for Permit Requirements** The monitoring requirements, discharge limits, and a summary of the monitoring conducted under the previous permit from March 2003 through December 2006 are presented in the two tables below and form the basis for the discussion that follows.

Table I.A.1 Discharge Limitations

Parameter	Discharge Limitation	Monitoring Requirements	
		Frequency	Sample Type
Flow Rate	216,000 gpd <sup>1</sup>	continuous	meter
TPH (C6 - C40)	1 mg/l	quarterly	discrete
EPA 8260 <sup>2</sup>	m&r	quarterly	discrete
Total Trihalomethanes	100 µg/l	quarterly	discrete
Trichloroethene (TCE)	5 µg/l	quarterly	discrete
Tetrachloroethene (PCE)	5 µg/l	quarterly	discrete
MTBE <sup>3</sup>	20 µg/l	quarterly	discrete
Benzene	5 µg/l	quarterly	discrete
Toluene	100 µg/l	quarterly	discrete
Ethylbenzene	100 µg/l	quarterly	discrete
Xylenes (total)	200 µg/l	quarterly	discrete
Total Inorganic Nitrogen	m&r	quarterly	discrete
NH3 as N	m&r	quarterly	discrete
NO2 + NO3 as N	m&r	quarterly	discrete
Total Phosphorus	m&r	quarterly	discrete
pH	6.5 to 9 su	quarterly	discrete
TDS	m&r	quarterly	discrete
Metals <sup>4</sup>	m&r	quarterly	discrete

m&r = monitor & report

1. Report average gpd per month
2. Full range, report all parameters. This will include the organics listed below this entry in the table.
3. Methyl tert-butyl ether

Nevada Division of Environmental Protection  
 Fact Sheet  
 NV0023248  
 Riviera Hotel Casino  
 Page 3 of 6

4. 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.

Discharge Monitoring Results - March 2003 through December 2006

mg/l, except as indicated	count <sup>1</sup>	min	avg	max	NAC 445A.199
flow, gpd	16	10,000	37,000	50,000	
DRO	0	0		0	
ORO	0	0		0	
GRO	0	0		0	
TDS	16	<b>2,042</b>	<b>2,441</b>	<b>2,700</b>	1900
TIN	16	3.44	5.52	7.20	20
NH3	2	0.10	0.26	0.41	
NO2 + NO3	11	4.87	5.85	7.20	
NO3	3	5.7	5.7	5.8	
NO2	0	0		0	
TKN	0	0		0	
TP	10	0.01	0.46	4.20	
pH	16	6.60	7.31	8.51	6.5 - 9.0

1. Number of flow measurements or analytical detections. Flow was reported monthly.

FLOW, 216,000 gpd (150 gpm): Flow data is necessary for determining impacts to the receiving water from the various constituents present. The limit is based on the capacity of the dewatering system. The average discharge was 37,000 gpd.

TOTAL PETROLEUM HYDROCARBONS (TPH), (C6 - C40), 1 mg/l: This is a technology based limit. The previous permit had a limit of 10 mg/l, with no basis given. This analysis is included because it covers a wide range of potential pollutants, although it's usefulness is limited by relatively high detection limits. TPH is typically split up as: gasoline range organics (GRO) C6 - C12, diesel range organics (DRO) C12 - C28, and oil range organics (ORO) C28 - C40. TPH was not detected.

EPA 8260, full range, report all parameters: Similar in purpose to the TPH analysis but with much lower detection limits. The results will include the organic constituents below.

- TOTAL TRIHALOMETHANES, 100 µ/l: This is the toxics standard for the municipal or domestic supply beneficial use

- TRICHLOROETHENE (TCE), 5 µg/l: This is the toxics standard for the municipal or domestic supply beneficial use.
- TETRACHLOROETHENE (PCE), 5 µg/l: This is the Maximum Contaminant Level (MCL) for drinking water.
- METHYL TERT-BUTYL ETHER (MTBE), 20 µg/l: This limit is taken from the Corrective Action program, and is based on taste and odor considerations.
- BENZENE, 5 µg/l: This is the toxics standard for the municipal or domestic supply beneficial use.
- TOLUENE, 100 µg/l: Toluene is methyl benzene. This technology based limit is used instead of the toxic standard (14,300 µg/l) since it's easily achievable.
- ETHYLBENZENE, 100 µg/l: This technology based limit is used instead of the toxic standard (1,400 µg/l) since it's easily achievable.
- XYLENES (TOTAL), 200 µg/l: This is a technology based limit. Total xylenes consist of the three isomers of dimethyl benzene.

TOTAL INORGANIC NITROGEN (TIN), m&r: This is included because of the control point standard of 20 mg/l, which is based on existing quality. The average concentration of the discharge is 5.52 mg/l. TIN is determined from the sum of separate analyses for nitrite, nitrate, and ammonia. Limits haven't been used because these compounds aren't targeted or significantly attenuated by the treatment process in place.

AMMONIA (NH<sub>3</sub>) as NITROGEN, m&r: This is included because it's part of the TIN analysis, and because of the TMDL, which is 970 lb/day. At 37,000 gpd and 0.26 mg/l, the contribution from this source would be 0.0803 lb/day. The actual contribution is likely much lower, however, because ammonia was only detected in two of sixteen samples.

NITRITE (NO<sub>2</sub>) + NITRATE (NO<sub>3</sub>) as NITROGEN, m&r: This is included because it's part of the TIN analysis.

TOTAL PHOSPHORUS, m&r: This is included because of the TMDL, which is 434 lb/day. At 37,000 gpd and 0.46 mg/l, the contribution from this source would be 0.142 lb/day.

pH, 6.5 - 9.0, standard units: This is the control point standard, based on beneficial uses. Although not controlled by the treatment process, an excursion would represent some type of mishap and could be corrected fairly easily.

TDS, m&r: This is included because of existing salinity impacts in the Colorado River basin. The average concentration of the discharge is 2441 mg/l. The control point standard is 1900 mg/l, based on existing quality. The 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. They're not limited based on natural occurrence, dilution, and difficulty of treatment. These analyses were not conducted under the previous permit.

### **Changes from the Previous Permit**

Please see the previous section for additional details.

An EPA 8260 scan and associated limits have been added as a precaution. Metals analyses have been added. The TIN limit has been removed, and the constituent concentrations are now to be reported. The TPH limit has been changed from 10 to 1 mg/l.

**Procedures for Public Comment** Notice of the Division's intent to renew discharge permit NV0023248, authorizing a dewatering discharge at Riviera Hotel Casino, 2901 Las Vegas Blvd South, is being sent to the Las Vegas Review Journal for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit must submit written comments to the Division 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 April 8, 2008, although letters postmarked on that date will also be accepted.

Nevada Division of Environmental Protection  
Fact Sheet  
NV0023248  
Riviera Hotel Casino  
Page 6 of 6

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 reasons why 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 issue the proposed discharge permit for a five year term.

Prepared by: Robert J. Saunders  
Staff Engineer  
Bureau of Water Pollution Control  
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