

**NEVADA DIVISION OF ENVIRONMENTAL PROTECTION**  
**FACT SHEET**

(Pursuant to NAC 445A.236)

**Permittee Name:** Alcoa Micromill  
1400 Waltham Way  
McCarran, NV 89434

**Permit Number:** NEV96007

**Location:** Alcoa Micromill  
1400 Waltham Way  
McCarran, Storey County, NV 89434  
Tahoe-Reno Industrial Center (TRIC)  
Latitude: 39° 33' 22" N, Longitude: 119° 31' 52" W  
Township 20N, Range 22E, Section 32

**Wellhead Protection Area:** The facility is located within the 3,000 feet, Drinking Water Protection Area (DWPA) 3 and 6,000 feet, DWPA 4, of five Non-Transient, Non-Community supply wells owned and operated by the TRIC, Tracy Power Plant and Eagle Picher Minerals. The wellhead capture zone for each of these five supply wells has not been delineated (modeled) and input into the NDEP i-Map application. In this industrial park location, there are no community supply wells.

**General:** Alcoa Micromill operates an aluminum rolling mill research and development center. Alcoa generates non-contact process wastewater from cooling tower blowdown, 0.02 MGD; evaporative cooler blowdown, 0.007 MGD; and reverse osmosis (R.O.) waste (reject stream), 0.003 MGD. In lieu of discharging non-sanitary, non-contact wastewater into the TRIC sanitary sewer or using an onsite evaporation pond, the non-sanitary, non-contact wastewater is used on-site for landscaping irrigation via sub-surface application. Irrigated vegetation includes ornamental landscaping and willow trees planted on six acres of the Alcoa property. When the production line is offline and not producing wastewater, potable makeup water from an onsite Alcoa supply well is available for irrigation. Process contact wastewater is separately handled and disposed of offsite. The plant's domestic (sanitary) wastewater is discharged to the TRIC sanitary sewer.

**Receiving Water Characteristics:** There are three down gradient monitoring wells installed with a reported depth to groundwater of 49 ft below ground surface. Presumed gradient is NNW towards the Truckee River located one-third mile north of the irrigation site. Nitrate-nitrogen levels range from 1.6 to 3.3 mg/l in these three wells. After 2004, the facility discontinued addition of liquid fertilizer into the irrigation system via a metering pump. In 2002, the nitrate-nitrogen level in MW-2 peaked at 8.5 mg/l due to over application of fertilizer injection.

**Flow:** The non-sanitary, non-contact process wastewater flow averaged 0.017 MGD with a daily maximum flow of 0.03 MGD (permit limit of 0.03 MGD). Since this is a corporate R&D facility, aluminum production, and hence wastewater flow, are variable. The permit does not require reporting of potable water makeup added into the irrigation system.

**DMR Analysis:** Non-contact wastewater TDS averaged 233 mg/l (Monitor & Report). TDS content is variable and based on plant production scheduling and number of cooling tower cycles prior to blow down, i.e., normally 2 to 3 cycles/blow down. The non-contact wastewater pH level averaged 7.9 SU (permit limit of 6 – 9 SU). The annual Profile 1 Analysis did not present any issues with respect to ground water quality. Notably, the arsenic level in the non-contact wastewater was 0.009 mg/l (potable standard is 0.01 mg/l), and the nitrate-nitrogen level was 0.76 mg/l (potable standard is 10 mg/l).

**Proposed Effluent Limitations and Special Conditions:**

**Table 1: Discharge Limitations (Non-Contact Process Wastewater)**

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30-Day Average	Daily Maximum	Daily Maximum	Sample Type
Discharge Flow, MGD	0.03		Continuous	Flow Meter
pH, S.U.	Within 6.0 – 9.0		Quarterly	Discrete
Total Dissolved Solids, mg/L	Monitor & Report		Quarterly	Discrete
Profile 1 Analysis	Monitor & Report		Annually (4 <sup>th</sup> Quarter)	Discrete

**Table 2: Groundwater Monitoring (MW-1, MW-2 & MW-3)**

PARAMETER	GROUNDWATER LIMITATIONS	MONITORING REQUIREMENTS	
		Measurement Frequency	Sample Type
TDS, mg/L	Monitor & Report	Quarterly	Discrete
Chlorides, mg/L	Monitor & Report	Quarterly	Discrete
Nitrate as N, mg/L	Monitor & Report	Quarterly	Discrete
Total Nitrogen as N, mg/L	10.0	Quarterly	Discrete
Depth to Groundwater, ft	Monitor & Report	Quarterly	Field Measurement
Groundwater Elevation, ft	Monitor & Report	Quarterly	Field Measurement

**Schedule of Compliance:** The Alcoa facility was last inspected by NDEP on September 11, 2008. Findings of the inspection indicate occurrence of broken irrigation lines and dead willow trees, i.e. uneven distribution of irrigation water to the planted vegetation. To address this finding, the following SOC item is requested.

- Within thirty (30) days of the permit's issuance date, the facility will have submitted a plan and schedule for repair and/or upgrade of the irrigation system to provide vegetative evaporative transpiration of the non-contact wastewater in accordance with the approved Effluent Management Plan (EMP).

**Procedures for Public Comment:** The Notice of the Division's intent to issue (renew) discharge permit #NEV96007, subject to the conditions contained within the permit is being sent to the **Comstock Chronicle** and **Reno Gazette-Journal** newspapers for publication. The notice is also being posted on the Division's website for public notices and e-mailed to interested parties on the Division's Public Notice receipt notification list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of publication of the public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. The deadline date and time by which all comments are to be submitted (via postmarked mail or time-stamped faxes, e-mails, or hand-delivered items) to the Division is **Monday, January 12, 2009, by 5:00 P.M.**

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator 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 determines 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 (renew) the proposed discharge permit for a period of five (5) years.

Prepared by: Mark A. Kaminski, P.E., Technical Services Branch  
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Bureau of Water Pollution Control

Date: December 9, 2008