

# NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

## FACT SHEET

(Pursuant to NAC 445A.236)

**Permittee:** Crafty's Featherworks, Inc.  
P.O. Box 370  
Overton, Nevada 89040

**Permit:** **NEV60044 - Renewal**

**Location:** Crafty's Featherworks Main Plant  
480 West Pat Avenue  
Overton, Clark County, Nevada 89040  
Latitude: 36° 34' 37" N, Longitude: 114° 26' 57" W  
Township 16S, Range 67E, NW ¼ NE ¼ NW ¼ Section 1 MDB&M

**Flow:** Daily Maximum: 7,000 gallons per day (gpd)  
30-day Average: 5,000 gallons per day (gpd)

**Wellhead Protection:** The facility is not located within drinking water protection area four, 6,000-foot radius, of a Moapa Valley Water District water supply well.

**General:** The Permittee operates a dyed feather manufacturing facility in Overton, Clark County, Nevada. At the facility, various non-toxic textile dyes are used to color washed turkey feathers. The manufacturing process consists of washing, dyeing, and rinsing unit operations. The finished feathers are then cut, trimmed and assembled onto archery arrow flights at an out-of-state finishing plant.

Screening, settling, and aeration operations are used to treat the process wastewater. Process wastewater flowing from the concrete collection trough inside the plant is screened with ¼-inch mesh to retain any stray feather parts that have passed through the wash, dye, and rinse tanks prior to discharge to a 4-inch PVC pipeline. Next, inorganic grit and settleable organic sludge is removed in two settling tanks, 500 and 2,000 gallons capacity, operated in series. The waste material from the settling tanks is periodically removed and disposed in a local sanitary landfill. The wastewater flows from the larger settling tank to the evaporation pond via an approximately 100-foot long, 4-inch PVC pipe. Finally, aeration and evaporation of the wastewater occurs in the double-lined pond. Twin 3-Hp blowers supply submerged aeration grids, 6 inches above the pond bottom, with oxygen for odor control and biological stabilization of any organic materials remaining in the process wastewater. Four spray irrigation lines are installed above the centerline of the pond to mist the pond surface with re-circulated effluent to increase the evaporation rate.

The pond dimensions are 110 feet by 150 feet with an operating depth of approximately 3 feet. The primary liner is constructed from 80-mil HDPE and the secondary liner is 40-mil HDPE. Leakage

through the primary liner flows to the 4-inch PVC leak detection and recovery system sump via a 200-mil geonet that has been installed between the two liners.

Since the double-lined system is designed to provide a zero-discharge containment system, the main treatment objective of the pond is to minimize odor generation through the biological stabilization of any biodegradable organic material that has been wasted from the washing, dyeing, and rinsing operations. In January 2003, the Division approved the revised Operations and Maintenance Manual for this facility.

All water used by the Permittee is provided by the Moapa Valley Water District. The facility's domestic wastewater is treated in and disposed via two on-site septic systems that are regulated by the Clark County Health District.

**Discharge Characteristics:** The facility was designed to treat a daily maximum flow of 7,000 gpd and a 30-day average flow of 5,000 gpd. The current operational flow is 3,013 gpd daily maximum and 2,328 gpd 30-day average. The greatest daily maximum flow, 6,436 gpd, was recorded in April 2005 and the greatest 30-day average flow, 4,682 gpd, was recorded in June 2002.

As a zero-discharge facility, few parameters are monitored on a regular basis. The annual average 5-day biochemical oxygen demand (BOD<sub>5</sub>), total suspended solids (TSS), and pH at the time of permit application were 47 milligrams per liter (mg/L), 63 mg/L, and 8.59 standard units (SU), respectively. Since January 2002, the highest values for these three parameters were recorded in June 2006; BOD<sub>5</sub> - 93 mg/L, TSS – 118 mg/L, and pH – 8.89 SU.

Lead, aluminum, and color were monitored quarterly in 2002. The average aluminum concentration was 0.51 mg/L. The average lead concentration was 0.11 mg/L and was not detected in 2 of the 4 analyses. The color ranged from blue-green to green-yellow.

**Receiving Water Characteristics:** The industrial process wastewaters are discharged to a double-lined evaporation pond with a leak detection and recovery system. There are no receiving waters for this zero-discharge facility.

The facility does not have a well, therefore, the permit application does not indicate the groundwater depth and flow direction data. The Division of Water Resources well log database includes a well, log 21028, in the NE NW portion of Section 1. The well 21028 log reports a static water level of 61 feet below ground surface within ¼ mile of the facility. The regional groundwater gradient in Overton is toward the Muddy River and the Overton Arm of Lake Mead.

**Proposed Effluent Limitations:** During the period beginning on the effective date of this permit and lasting until the permit expires, the Permittee is authorized to discharge industrial wastewater from the feather washing, dyeing, and rinsing processes to a double-lined, aerated evaporation pond.

Measurements and effluent samples taken in compliance with the monitoring requirements specified in Table 1 shall be collected at the following locations:



- III. to ensure adequate leak detection and recovery system sump evacuation to minimize hydraulic head on the secondary liner.

**Procedures for Public Comment:**

The Notice of the Division's intent to issue a groundwater discharge permit to the applicant, subject to the conditions contained within the permit is being sent to the **Tonopah Times-Bonanza** and the **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 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 **December 18<sup>th</sup>, 2008 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 the proposed groundwater discharge for a period of five (5) years.

Alexi Lanza – Staff Engineer  
Nevada Division of Environmental Protection  
Bureau of Water Pollution Control– Permitting Branch