



FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: CRAFTY'S FEATHERWORKS, INC.
PO BOX 370
OVERTON, NV - 89040

Permit Number: NS0060044

Location: CRAFTY'S FEATHERWORKS, INC., CLARK
480 W PAT AVE, OVERTON, NV - 89040
LATITUDE: 36.576944, LONGITUDE: -114.449167
TOWNSHIP: 16S, RANGE: 67E, SECTION: 1

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Outfall City	Outfall State	Outfall Zip	Outfall County	Latitude	Longitude	Receiving Water
001	FLOW METER	External Outfall		OVERTON	NV	89040	CLARK	36.576944	-114.449167	GROUNDWATER
002	EVAPORATION POND	Surface Disposal Site		OVERTON	NV	89040	CLARK	36.576944	-114.449167	GROUNDWATER
003	LEAK DETECTION	Internal Outfall		OVERTON	NV	89040	CLARK	36.576944	-114.449167	GROUNDWATER

General:

Crafty's Featherworks, Inc. operates a dyed feather manufacturing facility in Overton, Clark County, Nevada. Various non-toxic textile dyes are used to color washed turkey feathers at the facility. The manufacturing process consists of washing, dyeing, and rinsing unit operations. The finished feathers are 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-gallon capacity) operated in series. The waste material from the settling tanks is periodically removed and disposed of 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. A 3-horsepower blower supplies 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 high-density polyethylene (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.

Discharge Characteristics:

The discharge consists of industrial process wastewater with the following average daily maximum values for 5-day biochemical oxygen demand (BOD5), total suspended solids (TSS), total dissolved solids (TDS), and pH, monitored between the first quarter of 2010 through the first quarter of 2015:

BOD5: 76.2 mg/L
TSS: 302 mg/L
TDS: 8868 mg/L
pH: 8.71 standard units

Crafty's Featherworks, Inc. is considered to be in substantial compliance with the current permit.

Receiving Water:

The industrial process wastewaters are discharged to a double-lined evaporation pond with a leak detection and recovery system. In the event of pond failure, the receiving water would be groundwater of the State. According to the State of Nevada Division of Water Resources Well Log Database, the static water level at a well located within a quarter mile of the facility (well log no. 21028) is 61 feet below ground surface. The regional groundwater gradient in Overton is toward the Muddy River and the Overton Arm of Lake Mead.

Summary of Changes From Previous Permit:

Due to redundancy, the requirement to monitor and report the 30-day average for BOD5, TSS, TDS, and pH has been removed. The requirement to monitor and report the daily maximum for each of these parameters once per quarter has been retained.

The evaporation pond liner leakage rate limit and action leakage rates have been updated to maintain consistency with similar permits.

Due to the new naming conventions at the Nevada Division of Environmental Protection (NDEP), Bureau of Water Pollution Control, the permit number has been changed from NEV60044 to NS0060044. This change does not reflect a change in the type of permit being issued.

Proposed Effluent Limitations:

The discharge shall be limited and monitored by the Permittee as specified below:

WWTP Discharge Limitations Table for Sample Location 001 (Flow Meter) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Daily Maximum	<= 7000 Gallons per Day (gal/d)		Effluent Gross	001	Continuous	METER
Flow rate	30 Day Average	<= 5000 Gallons per Day (gal/d)		Effluent Gross	001	Continuous	METER

Ponds / Rapid Infiltration Basins for Sample Location 002 (Evaporation Pond) To Be Reported Quarterly

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
BOD, 5-day	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002 ^[1]	Quarterly	DISCRT
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002 ^[1]	Quarterly	DISCRT
pH, minimum	Daily Minimum		>= 6.0 Standard Units (SU)	Effluent Gross	002 ^[1]	Quarterly	DISCRT
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	002 ^[1]	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002 ^[1]	Quarterly	DISCRT

Notes (Ponds / Rapid Infiltration Basins):

1. Sample shall be taken from the industrial process wastewater in the evaporation pond.

Ponds / Rapid Infiltration Basins for Sample Location 002 (Evaporation Pond) To Be Reported Annually During Specific Years

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Lead, total (as Pb)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002 ^[1]	Annual	DISCRT
Mercury, total (as Hg)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002 ^[1]	Annual	DISCRT
Nickel, total (as Ni)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002 ^[1]	Annual	DISCRT
Selenium, total (as Se)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002 ^[1]	Annual	DISCRT
Silver, total (as Ag)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002 ^[1]	Annual	DISCRT
Sulfate, total (as SO ₄)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002 ^[1]	Annual	DISCRT
Thallium, total (as Tl)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002 ^[1]	Annual	DISCRT
Zinc, total (as Zn)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002 ^[1]	Annual	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002 ^[1]	Annual	DISCRT
Antimony, total (as Sb)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002 ^[1]	Annual	DISCRT
Arsenic, total (as As)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002 ^[1]	Annual	DISCRT
			M&R				

Ponds / Rapid Infiltration Basins for Sample Location 002 (Evaporation Pond) To Be Reported Annually During Specific Years

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Cadmium, total (as Cd)	Daily Maximum		Micrograms per Liter (ug/L)	Effluent Gross	002 ^[1]	Annual	DISCRT
Chromium, total (as Cr)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002 ^[1]	Annual	DISCRT
Copper, total (as Cu)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002 ^[1]	Annual	DISCRT

Notes (Ponds / Rapid Infiltration Basins):

- The industrial process wastewater in the evaporation pond shall be sampled and analyzed for the listed parameters during the fourth quarter of 2016 and during the fourth quarter of 2019. The results of the 2016 analysis shall be submitted with the fourth quarter report on January 28, 2017, and the results of the 2019 analysis shall be submitted with the fourth quarter report on January 28, 2020.

Ponds / Rapid Infiltration Basins for Sample Location 003 (Leak Detection) To Be Reported Monthly

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Liner Leakage Rate	7 Day Average	<= 500 Gallons per Acre per Day (gal/acre/d)		Internal Monitoring Point	003 ^[1]	Weekly ^[2]	METER

Notes (Ponds / Rapid Infiltration Basins):

1. The liner leakage rate shall be measured at the monitoring port for the evaporation pond leak detection and recovery system.
2. The sump must be inspected and evacuated on a more frequent basis than weekly if the fluid level is above the top of the sump or the invert of any pipe which discharges into the sump, whichever level is lower. Records are required documenting volume, date, and time of extraction to show that sumps are maintained in this condition.

Rationale for Permit Requirements:

Monitoring requirements for the parameters identified in the discharge limitations tables have been established to ensure that the design capacity of the evaporation pond system is not exceeded, to characterize the water contained in the evaporation ponds, and to ensure adequate leak detection and recovery system sump evacuation to minimize hydraulic head on the secondary liner.

Special Conditions:

Substantial compliance with the current permit is a condition of permit renewal.

SA – Special Approvals / Conditions Table

Item #	Description
1	The leak detection sump shall be inspected, and evacuated if fluid is present, on a weekly basis. A written weekly inspection record shall note the average daily accumulation of fluid and be submitted as part of the quarterly Discharge Monitoring Report (DMR).
2	A minimum of two feet of freeboard shall be maintained in the evaporation pond. The pond shall have a staff gauge, or other Division-approved method measuring water level. Staff gauge readings, taken at least weekly, shall be recorded in a log maintained on-site.

Flow:

Daily Maximum ≤ 7000 gpd

30-Day Average ≤ 5000 gpd

Corrective Action Sites:

There are no Bureau of Corrective Actions remediation sites located within one mile of the permitted facility.

Wellhead Protection Program:

The permitted facility is not located within a Drinking Water Protection Area or a Wellhead Protection Area.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit two copies of an updated Operations & Maintenance (O&M) Manual to the Division. The O&M Manual shall be prepared by a qualified person familiar with facility operations.	4/1/2016

Deliverable Schedule:

DLV– Deliverable Schedule for Reports, Plans, and Other Submittals

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	4/28/2016
2	Annual DMRs	Annually	1/28/2017
3	Annual Report	Annually	1/28/2017

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being sent to the **Las Vegas Review Journal, Moapa Valley Progress** 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 until 5:00 P.M. **10/18/2015**, a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX 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 determined to be appropriate. All public hearings must be conducted to 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 / re-issue the proposed 5-year permit.

Prepared by: **Alan Pineda**

Date: **9/11/2015**

Title: **Staff I Associate Engineer**