



STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Brian Sandoval, Governor

Leo M. Drozdoff, P.E., Director

Colleen Cripps, Ph.D., Administrator

FACTSHEET (pursuant to NAC 445A.236)

Permittee Name: DURAFLEX INT'L CORP
160 WUNOTOO ROAD
SPARKS, NV - 89434

Permit Number: NS0040004

Location: DURAFLEX INTERNATIONAL, STOREY
160 WUNOTOO RD, SPARKS, NV - 89434
LATITUDE: 39.562050, LONGITUDE: -119.520042
TOWNSHIP: 20 N, RANGE: 22 E, SECTION: 33

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Outfall City	Outfall State	Outfall Zip	Outfall County	Latitude	Longitude	Receiving Water
001	DISCHARGE TO RIB	External Outfall		MCCARRAN	NV	89434	STOREY	39.561381	-119.518967	GROUNDWATER
MW1	MONITORING WELL #1	Monitoring Well		MCCARRAN	NV	89434	STOREY	39.560983	-119.519133	GROUNDWATER
MW2	MONITORING WELL #2	Monitoring Well		MCCARRAN	NV	89434	STOREY	39.562017	-119.519033	GROUNDWATER
MW3	MONITORING WELL #3	Monitoring Well		MCCARRAN	NV	89434	STOREY	39.561975	-119.518850	GROUNDWATER

General:

The Permittee, Duraflex International, is requesting a major modification to their current permit that was issued on April 14, 2014. After the permit issuance, Duraflex continued to work with their engineering consultant to ensure they understood and complied with the new permit and to also assist Duraflex in the preparation of the Operations and Maintenance (O&M) Manual. During the review of the plant processes, flow meters were added at the plant Outfall 001 along with other discharges to accurately measure all flow entering the commingled waste stream that ultimately enters the infiltration basin. These discharges, that contribute to the final waste stream, were found to include product rinse water, tap water rinse tank, deionized (DI) rinse tank, backwash from the water softener and reverse osmosis water treatment units, contact cooling water from the rivet quench system and non contact cooling water from a refrigerant compressor. All of these discharge streams have always been in existence at the facility. The commingled waste stream has always been monitored and reported as required in past and present permit monitoring requirements. However, in regards to the flow, only the flow from the rinse water waste stream has been historically reported based upon calculated estimates. The addition of the flow meter at Outfall 001 has allowed Duraflex to accurately record the total commingled waste stream. The total flow rates now indicate 8,500 gallons per day (gpd) measured weekly as a 7-day average, which exceeds the current permitted flow limit of 5,000 gpd. Duraflex is therefore requesting the permit modification to increase the flow limit to 10,000 gpd, measured weekly as a 7-day average.

Duraflex International is located in the Tahoe-Reno Industrial Center, adjacent to the Tracy Clark Power Station east of Reno, at the north end of Storey County, Nevada. Duraflex manufactures, repairs, and reconditions competition-grade aluminum swimming pool diving boards and related equipment, such as stands for the boards. All of Duraflex's manufacturing operations are conducted at the Tracy plant, except for production of the extruded boards. During the course of the manufacturing process, a waste stream is

generated consisting of water used to rinse some of the chemical reagents used during the protective coating of the boards. The protective coating process consists of dipping the boards into eight dip tanks filled with the following chemical reagents: detergent, caustic, rinse water (potable water), deoxidizer #1, deoxidizer #2, DI rinse water, trivalent chrome, and recycled DI rinse water. Boards are dipped into the detergent solution, followed by a hose water rinse, dipped into a caustic solution, rinsed, dipped into deoxidizer #1, rinsed, dipped into deoxidizer #2, and rinsed with DI water. Ultimately, for protective coating, the boards are dipped in a trivalent chrome solution and rinsed with recycled DI rinse water.

The chrome dip tank and subsequent chrome rinse tank are contained in a closed-loop system that prevents any discharge to the environment. Water from the chrome rinse tank is circulated through four resin and two carbon adsorption tanks for treatment/recycling. When the resin and carbon have been exhausted, the tanks are sent to the manufacturer for regeneration. A secondary containment curbing encompasses the chrome dip and rinse tanks and resin/carbon canisters to provide containment if any or all of the tanks leaked. Periodically, the dip solutions (excluding the chromium tanks) are exhausted and must be changed. These solutions are mixed and treated to neutralize the pH and precipitate any contained metals. The neutralized solution is filtered through diatomaceous earth and a filter press. Solids are disposed of by a licensed sludge hauler (Philip Services Corporation in Fernley, NV), and the filtrate is evaporated via an evaporator. The dip solutions and filtrate are expressly prohibited from disposal in the infiltration basin.

The rinse water is routed to a floor drain which is then piped to a 1,500 gallon septic tank used for settling. Two pumps are used alternately to pump the water to an approximately 50 feet by 90 feet on-site infiltration basin for disposal. The infiltration basin currently in use was constructed in 2008 to replace the original basin that ceased to effectively dispose of the rinse water.

Discharge Characteristics:

Rinse water is collected by a floor drain and discharged by underground pipe to the infiltration basin. Several metals have been identified as constituents of concern, either because they were detected at low levels in groundwater samples or because they are used in the manufacturing process. Identified constituents include, chromium, lead, cadmium, nitrogen, aluminum, and phosphorus.

Rinse water flow for January 2010 through July 2013 averaged 3407 gallons per day. During this time, the discharge averaged the following: chromium - 0.030 mg/L; lead - 0.00027 mg/L; cadmium - non detect; aluminum - 8.8 mg/L (average is skewed because of a 4th quarter, 2010 sample showing 97 mg/L); pH - 7.60; and total dissolved solids (TDS) - 1091 mg/L.

Receiving Water:

The receiving water for the facility is groundwater via percolation in an infiltration basin. Groundwater is reported to be at a depth of 50 feet below ground surface and flows north toward the Truckee River. Three new groundwater monitoring wells were drilled in 2009; MW-1 is 75 feet south (upgradient) of the infiltration basin, MW-2 and MW-3 are approximately 200 feet north (downgradient) of the basin.

Quarterly groundwater sampling from January 2010 through July 2013 shows that there have been no detectable concentrations for cadmium and lead in any of the monitoring wells. During this same time, groundwater monitoring has shown that chromium and aluminum are present in the groundwater. Chromium averaged non detect in MW-1, 0.0063 mg/L in MW-2, and 0.016 mg/L in MW-3. Aluminum averaged 0.074 mg/L in MW-1, 0.12 mg/L in MW-2, and 0.035 mg/L in MW-3.

Summary of Changes From Previous Permit:

A modification to the permit will increase the current allowable flow limit of 8,500 gpd (measured weekly as a 7-day average) to a 10,000 gpd (measured weekly as a 7-day average) flow limit.

A requirement to monitor quarterly and ensure a freeboard > 24 inches has been added to the permit conditions.

Proposed Effluent Limitations:

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

Groundwater Monitoring Wells Table for Sample Location Mw1 (Monitoring Well) To Be Reported Quarterly

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Depth to water level ft below landsurface	Value	M&R Feet (ft)		Groundwater	MW1	Quarterly	STATIC
Nitrogen, total	Value		<= 10 Milligrams per Liter (mg/L)	Groundwater	MW1	Quarterly	DISCRT
Aluminum, total (as Al)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	MW1	Quarterly	DISCRT
Phosphorus, total (as P)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	MW1	Quarterly	DISCRT
Solids, total dissolved	Value		M&R Milligrams per Liter (mg/L)	Groundwater	MW1	Quarterly	DISCRT
Chromium, total (as Cr)	Value		<= 0.1 Milligrams per Liter (mg/L)	Groundwater	MW1	Quarterly	DISCRT
Lead, total (as Pb)	Value		<= 0.015 Milligrams per Liter (mg/L)	Groundwater	MW1	Quarterly	DISCRT
Cadmium, total (as Cd)	Value		<= 0.005 Milligrams per Liter (mg/L)	Groundwater	MW1	Quarterly	DISCRT

Groundwater Monitoring Wells Table for Sample Location Mw2 (Monitoring Well) To Be Reported Quarterly

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Depth to water level ft below landsurface	Value	M&R Feet (ft)		Groundwater	MW2	Quarterly	STATIC
Chromium, total (as Cr)	Value		<= 0.1 Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT
Lead, total (as Pb)	Value		<= 0.015 Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT
Nitrogen, total	Value		<= 10 Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT
Aluminum, total (as Al)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT
Phosphorus, total (as P)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT
Cadmium, total (as Cd)	Value		<= 0.005 Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT
Solids, total dissolved	Value		M&R Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT

Groundwater Monitoring Wells Table for Sample Location Mw3 (Monitoring Well) To Be Reported Quarterly

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Aluminum, total (as Al)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	MW3	Quarterly	DISCRT
Cadmium, total (as Cd)	Value		<= 0.005 Milligrams per Liter (mg/L)	Groundwater	MW3	Quarterly	DISCRT
Nitrogen, total	Value		<= 10 Milligrams per Liter (mg/L)	Groundwater	MW3	Quarterly	DISCRT
Depth to water level ft below landsurface	Value	M&R Feet (ft)		Groundwater	MW3	Quarterly	STATIC
Chromium, total (as Cr)	Value		<= 0.1 Milligrams per Liter (mg/L)	Groundwater	MW3	Quarterly	DISCRT
Lead, total (as Pb)	Value		<= 0.015 Milligrams per Liter (mg/L)	Groundwater	MW3	Quarterly	DISCRT
Phosphorus, total (as P)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	MW3	Quarterly	DISCRT
Solids, total dissolved	Value		M&R Milligrams per Liter (mg/L)	Groundwater	MW3	Quarterly	DISCRT

Ponds / Rapid Infiltration Basins for Sample Location 001 (External Outfall) To Be Reported Quarterly

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	001	Weekly	METER
Flow rate	Daily Maximum	<= 0.010 Million Gallons per Day (Mgal/d)		Effluent Gross	001	Weekly	METER
Chromium, total (as Cr)	Value		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Aluminum, total (as Al)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Phosphorus, total (as P)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Solids, total dissolved	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
pH, maximum	Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	001	Quarterly	DISCRT
pH, minimum	Minimum		>= 6.0 Standard Units (SU)	Effluent Gross	001	Quarterly	DISCRT
Lead, total (as Pb)	Value		<= 0.015 Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Cadmium, total (as Cd)	Value		<= .005 Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT

Ponds / Rapid Infiltration Basins for Sample Location 001 (External Outfall) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Freeboard	Daily Minimum		>= 24 Inches (in)	Internal Monitoring Point	001	Quarterly	VISUAL

Ponds / Rapid Infiltration Basins for Sample Location 001 (External Outfall) To Be Reported Once During The Permit Term^[1]

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Alkalinity, bicarbonate (as CaCO ₃)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Alkalinity, total (as CaCO ₃)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Antimony, total (as Sb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Arsenic, total (as As)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Barium, total (as Ba)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Beryllium, total (as Be)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Calcium, total (as Ca)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Copper, total (as Cu)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Fluoride, total (as F)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Iron, total (as Fe)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
			M&R				

Ponds / Rapid Infiltration Basins for Sample Location 001 (External Outfall) To Be Reported Once During The Permit Term^[1]

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Magnesium, total (as Mg)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Manganese, total (as Mn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Mercury, total (as Hg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Nickel, total (as Ni)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Potassium, total (as K)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Selenium, total (as Se)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Silver, total (as Ag)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Sodium, total (as Na)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Sulfate, total (as SO ₄)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Thallium, total (as Tl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Zinc, total (as Zn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT

Notes (Ponds / Rapid Infiltration Basins):

1. The Profile I parameters shall be sampled for once during the term of this permit, within one year of the expiration date, and be reported as part of the 4th quarter DMR in the year that the sample was obtained.

Rationale for Permit Requirements:

Chromium, Lead, Cadmium, Aluminum, and Total Dissolved Solids (TDS): The Division is proposing to retain the quarterly requirement to monitor for chromium, lead, cadmium, aluminum, and TDS from the previous permit. There are primary drinking water standards for the following parameters: chromium - 0.1 mg/L, lead - 0.015 mg/L, and cadmium - 0.005 mg/L. There are no primary drinking water standards for aluminum and TDS; therefore, M&R is required.

Total Nitrogen: Nitrogen is present in the chemical product Chemcid 2217 (as nitric acid and ferric nitrate). The State's standard for total nitrogen is 10 mg/L.

Phosphorus: Phosphorus is present in the chemical product Trisodium Phosphate. There is no primary drinking water standard for phosphorus; therefore, M&R is required.

Profile I: M&R of Profile I parameters once per permit term are included to fully characterize the discharge to groundwaters of the State.

pH: The State's standard for groundwater discharge is 6.0 to 9.0 standard units.

Special Conditions:

SA – Special Approvals / Conditions Table

Item #	Description
1	A warning sign shall be maintained at each of the process tank discharge valves that reads, "Do Not Open This Valve Until Diversion Standpipe is in Place to Prevent Discharge to the Above Ground Leach Pond."
2	The dip solutions and filtrate are prohibited from being discharged to the infiltration basin.
3	<p>If the concentration of Chromium in the downgradient monitoring wells reaches 0.07 mg/L, the Permittee shall provide the Division with a management plan and implementation schedule to reduce the discharge of Chromium from the facility.</p> <p>If the concentration of Chromium in the downgradient monitoring wells reaches 0.09 mg/L, the Permittee shall implement the management plan to reduce the discharge of Chromium from the facility.</p> <p>If the concentration of Chromium in the downgradient monitoring wells reaches 0.1 mg/L, the discharge to groundwater shall cease.</p>
4	<p>If the concentration of Lead in the downgradient monitoring wells reaches 0.0105 mg/L, the Permittee shall provide the Division with a management plan and implementation schedule to reduce the discharge of Lead from the facility.</p> <p>If the concentration of Lead in the downgradient monitoring wells reaches 0.0135 mg/L, the Permittee shall implement the management plan to reduce the discharge of Lead from the facility.</p> <p>If the concentration of Lead in the downgradient monitoring wells reaches 0.015 mg/L, the discharge to groundwater shall cease.</p>
5	<p>If the concentration of Cadmium in the downgradient monitoring wells reaches 0.0035 mg/L, the Permittee shall provide the Division with a management plan and implementation schedule to reduce the discharge of Cadmium from the facility.</p> <p>If the concentration of Cadmium in the downgradient monitoring wells reaches 0.0045 mg/L, the Permittee shall implement the management plan to reduce the discharge of Cadmium from the facility.</p> <p>If the concentration of Cadmium in the downgradient monitoring wells reaches 0.005 mg/L, the discharge to groundwater shall cease.</p>
6	Part B.PB.10 - A freeboard depth of 2-feet has been reviewed and found acceptable for compliance with this permit.

Flow:

The Permittee has proposed to increase the discharge limit to a daily maximum rate of 10,000 gallons per day (0.010 million gallons per day).

Corrective Action Sites:

There are no Bureau of Corrective Actions remediation sites location within one mile of this facility.

Wellhead Protection Program:

The facility is located within a two 1,000-ft Drinking Water Production Areas (DWPA) and two 3,000-ft DWPAs. The facility is not located within an established Wellhead Protection Area.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit for review and comment two (2) copies of an updated Operation and Maintenance (O&M) Manual, compiled in accordance with the appropriate sections of Nevada Division of Environmental Protection (NDEP) guidance document WTS-2, "Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant." The O&M Manual shall be prepared by a Nevada Registered Professional Engineer or Division-approved qualified person. If prepared by a Nevada Registered Professional Engineer, the O&M Manual shall be wet stamped.	5/1/2015

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	7/28/2014
2	Annual Reports	Annually	1/28/2015

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 **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 until 5:00 P.M. **3/4/2015**, 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: **Michele Reid**

Date: **1/23/2015**

Title: **Staff I Associate Engineer**