

		<h2 style="text-align: center;">STORMWATER COMPLIANCE INSPECTION REPORT</h2> <p style="text-align: center;">State of Washington Department of Ecology 15700 Dayton Avenue N, Shoreline, WA 98133</p>			WADOE Stormwater Phone: (206) 594-0000										
Section A: General Data															
Inspection Date 6/15/2023	NPDES Permit # WAR003231	County King	Receiving Waters Duwamish	Inspector Jessica Kasmari	Facility Type Industrial										
Discharges to: Surface Water <input checked="" type="checkbox"/> Ground Water <input type="checkbox"/>				ANNOUNCED Inspection											
Section B: Facility Data															
Name and Location of Site Inspected Jorgensen Forge 8531 E MARGINAL WAY S, TUKWILA, 98108				Entry Time 2:00 pm	Permit Effective Date 01/01/2020										
				Exit Time 3:30 pm	Permit Expiration Date 12/31/2024										
On-Site Representative(s): Name(s)/Title(s)/Contact number(s) or E-mail Stacy Fox, Senior Consultant of DH Environmental stacyfox@dhenviro.com 206.777-5159 David Hill, President of DH Environmental davehill@dhenviro.com 206-293-3126				Additional Participants:											
Responsible Official(s): James Robertson, President jrobertson@jorgensenforge.com (206) 676-9221				Weather: Sunny and 70°F Sampling and Photos <table border="0" style="width: 100%;"> <tr> <td></td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">No</td> </tr> <tr> <td>Samples Taken?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>Photos Taken?</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>				Yes	No	Samples Taken?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Photos Taken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Section C: Summary of Findings/Comments															
<u>BACKGROUND</u>															
<p>Jorgensen Forge also known as Star Forge is conditionally authorized to discharge stormwater under Ecology's Industrial Stormwater General Permit (ISGP #WAR003231). The facility is currently under and administrative order #18074 as of April 2020 to install stormwater treatment and sampling for the following; total arsenic, total barium, total cadmium, total mercury, total chromium, total nickel, total selenium, total silver, BTEX (benzene, toluene, ethylbenzene, and xylene in addition to PCBs). The facility is also undergoing a toxic cleanup with Ecology's Toxic Cleanup Program. The purpose of this meeting was to provide technical assistance as appropriate and provide a walkthrough discussion of the stormwater treatment system and future demolition. Jorgensen Forge previously manufactured precision-machined forgings from material grades of metal, including carbon and low alloy steels, duplex stainless grades, aluminum alloys, titanium alloys, and nickel base alloys for the commercial aircraft, aerospace, energy (oil exploration), power generation, automotive, and shipbuilding industries.</p> <p>A summary of compliance results from the current permit cycle (2020 to present) is below: Jorgensen Forge has one sample location and one discharge point into the Duwamish. Within the current permit cycle, copper exceeded the benchmark in 2nd quarter of 2019 at 16.2 ug/L. Zinc exceeded the benchmark in the 1st quarter of 2020 at 140.4 ug/L. Ecology approved a chemical polymer to be added to the treatment system in February 2020 to enhance the treatment system's performance.</p> <p>According to the SEPA proposal description, Star Forge is closing its manufacturing operations at their 20-acre facility and proposes to demolish 17 existing buildings totaling 323,118 square feet. Existing concrete foundations will remain in place, and concrete-lined equipment vaults will be filled to surface grade and paved with asphalt or covered before building demolition. The project also proposes to remove 18 underground storage tanks (USTs), decontaminate and/or remove concrete and asphalt slabs, and remove limited soil to facilitate paving.</p>															
<u>INSPECTION/OBSERVATIONS</u>															
<p>Meeting: Ecology inspector Jessica Kasmari met with Stacy Fox and David Hill of DH Environmental, representing Star Forge. Jorgensen Forge facility is situated approximately 4.7 miles south and upstream of Elliott Bay. The entire site covers approximately 20 acres, of which 92 percent is paved with asphalt or covered by buildings (photo 1). The main building includes the Melt Shop, Forge Shop, Heat Treat, Auto Repair Shop, and Hollow bore and Machine Shops, all of which are inactive. There are several smaller buildings that house an office, support services, storage, and an aluminum heat-treat facility that are no longer active. Several buildings at the Facility are lacking continuous roofing. These buildings will be demolished after a demolition permit has been issued by the City of Tukwila.</p>															

Walkthrough discussion

- A portion of galvanized roofing has been removed for PCB, the removal will likely reduce zinc from entering the stormwater. A stop order was issued, by a local entity, therefore not all roofing was removed and some still remain. The removal of the roof allowed precipitation to enter the buildings. The water inside the buildings is considered wastewater and is removed and hauled off-site. Approximately 1 million gallons of wastewater has been hauled away. As described in the Stormwater Pollution Prevention Plan (SWPPP) If rainwater comes into contact with waste materials inside of buildings, the materials and wastewater will be captured inside of containment berms. A pump will be used to remove the collected precipitation and the water shall be pumped into a temporary tank until profiled and disposed of by an outside vendor at an appropriate off-site facility.
- Treatment
 - 19 baker tanks in the summer and 49 tanks in the winter, during the wet season (photo 2).
 - 3 types of filters, sand, chitosan, and one for metals.
 - The sand filter has been changed out twice in this permit cycle.
 - The other two have been changed once since 2020.
 - There is a double-walled diesel tank and generator within secondary containment (photo 3).
 - A sample is collected after the filtration and before the tanks. Tanks are for storage only before discharge.
 - According to the order a batch sample is collected. It was agreed upon between Ben Billick, the previous Ecology Inspector, and DH Environmental a batch is one rain event i.e., 3 day or 5 days of consistent rain. Will collect a second sample if rain stops for 48 hours, collecting a before the 48 hours and after the 48 hours. At minimum DH environmental collects a weekly sample.
 - During demolition they will monitor the treatment system more frequently than the current once a week.
 - After treatment water is stored in tanks then discharged to the Duwamish (photo 4).
- Bag House Tunnel (photo 1 and photo 2)
 - KO61 waste was cleaned and inspected prior to DH Environmental involvement.
 - DH Environmental will demolish the tunnel in pieces and place it in a containment zone.
 - Using wet rags (wet wipes) any remaining dust will be removed and disposed of.
- Tote Building
 - This is a shed and the building materials contain PCB. (photo 5)
 - As part of the demolition, they will remove building and up to 18 inches of soil below the building will be removed and disposed of off-site.
- BMPs along the Duwamish
 - Currently there is a fence with haybales, DH Environmental is evaluating the need to change the BMP during demolition.
 - There is a plan to use a steel fence with cold patch, asphalt and looking for different options to prevent any sheet flow from entering the Duwamish River during demolition.
 - They are unable to disturb soil, because the interim remedial action prohibits it (MTCA). Therefore, they cannot dig a trench or anything permanent.
 - Ecology recommends ecology blocks with filter fence.
- CAA or diesel storage
 - Former oil storage, currently empty of any oils
- Ponding area
 - Within the demolition report, there was an area described as ponding. This is a low-lying area on the southern side of the property adjacent to the Boeing facility.
 - There are no catch basins in this area the water just infiltrates through the pavement or evaporates. (photo 6).
- They do not have a grading permit therefore major grading will not occur.
- Abatement is approximately 90-95% complete.
- Underground Storage Tanks (USTs)
 - Slag material containing metals was used as fill material between the USTs. During removal the slag will be loaded directly onto trucks for disposal. If there is a need to create piles, the slag material will be covered to prevent stormwater pollution. (photo 8)
- Sampling data was discussed. DH Environmental mentioned the water inside the buildings is "cleaner" than the pre-treated stormwater.

Closing the meeting and discussing information pertaining to the SWPPP and permit.

- They have a permit to discharge to sanitary.
- All water inside buildings have been and will continue to be treated as wastewater.
- Two outfalls are plugged, one is open.
- Some catch basins are sealed.
- Every catch basin has a boom and filter (photo 7).
- Sweeping occurs weekly.
- Jorgensen's goal to be able to submit a notice of termination for the ISGP permit after demolition and before the new property owner takes ownership.

Section D: Compliance/Recommendations

For questions about this report, please contact Ecology Inspector Jessica Kasmari at Jessica.kasmari@ecy.wa.gov 206-594-0000 or Dept. of Ecology, Water Quality Program, 15700 Dayton Ave. N., Shoreline WA 98133.

For assistance with any of these compliance issues or recommendations regarding Best Management Practices see the Stormwater Management Manual for Western Washington, volumes IV and V (SWMM). To obtain a copy of the SWMM you may go to Ecology's website at: <http://www.ecy.wa.gov/programs/wq/stormwater/manual.html>

The Department of Ecology has the authority to issue formal enforcement actions including issuance of orders and civil penalties of up to \$10,000 per day per violation for violations of your NPDES permit and/or state laws and regulations.

Signatures

Jessica Kasmari	Date
Industrial Stormwater Inspector	
Water Quality Program	

PHOTO ADDENDUM – JORGENSEN
ALL PHOTOS TAKEN BY JESSICA KASMARI ON 6/15/23

**PHOTO 1**

DIRECTION: Looking West towards the Duwamish River
DESCRIPTION: Back half of the facility where the treatment system is located

**PHOTO 2**

DIRECTION: Looking Northwest
DESCRIPTION: Baker Tanks and Bag House

**PHOTO 3**

DIRECTION: Looking North
DESCRIPTION: Secondary containment and double-wall diesel tank for the generator

**PHOTO 4**

DIRECTION: Looking West
DESCRIPTION: Approximate location of the discharge pipe

**PHOTO 5****DIRECTION:** Looking West towards the Duwamish River**DESCRIPTION:** PCB containing materials**PHOTO 6****DIRECTION:** Looking West towards the Duwamish River**DESCRIPTION:** The area where stormwater ponds. There are no catch basins in this area**PHOTO 7****DIRECTION:** Looking North**DESCRIPTION:** Example of catch basin with filter sock**PHOTO 8****DIRECTION:** Looking Northwest**DESCRIPTION:** SLAG MATERIAL SURROUND THE UNDERGROUND STORAGE TANKS