

State of Wisconsin - Department of Natural Resources
 Substance Release Notification Report (SERTS)
 Report created on 02/14/2014

SPILL ID# 20140106NE38-1 BRRTS# 04-38-59669

Incident Date & Time: 01/06/2014 23:00	Reported Date & Time: 01/06/2014 11:30	BRRTS No: 04-38-561669	Spill ID: 20140106NE38-1
DATCP Reported? No DATCP Transferred? No	NFA Letter Sent? No	ERP Transferred? No	Incident Closed? Yes : 02/10/2014

Location			
Region: NE	County: Marinette	Municipality: MARINETTE, CITY OF	
Facility/Property Name and Street Address: WAUPACA FOUNDRY 805 OGDEN ST		Description: ISOLATION WEIR	
Facility Type: Industrial Facility (Foundry/Factory/Plating/Manufacturing)			
Lat/Long:	PLSS:	WTM: X 708843 Y 516397	
Weather Conditions: Cold			

Responsible Parties			
Name/Address (1): WAUPACA FOUNDRY 805 OGDEN ST MARINETTE, WI 54138-	Contact: JAMES LAWATSCH ENVIRONMENTAL ENGINEERING (715) 735-4970 x primary (715) 735-4999 x secondary	Other Contact:	Spill Packet: Sent on 01/06/2014 to JAMES.LAWATSCH@WAUPACA

Cause
HEAT EXCHANGER FAILURE

Cause Type: HEAT EXCHANGE FAILURE

Substances						
Name	Other / Comments	Amt Released	Amt Recovered	Type	Color	Odor
Hydraulic Oil	BIOSYNTHETIC OIL (VEGETABLE BASED)	EST 100.0 Gal	EST 90.0 Gal	LIQUID		

Environmental Impacts / Damages				
Environmental Impacts: SURFACE WATER - Name : MENOMINEE RIVER OTHER IMPACT: ISOLATION WEIR	Resource Damages: No	Injuries: No	Evacuation: No	

Cleanup Actions	
Method	Description
Containment	85 GALLONS IN HOLDING TANK
Boom	15 GALLONS BOOMED IN WEIR

Cleanup Action Comments
 85 GALLONS IS IN THE WATER RECYCLE SYSTEM WAITING TO BE REMOVED. ESTIMATED 15 GAL MIXED WITH WATER, ENTERED THE RECYCLE SYSTEM, WENT TO OUTFALL 001, WEIR. BOOMED IMMEDIATELY. 5-55 GALLON DRUMS WATER/OIL MIX AND THE BOOMS ARE DRUMMED.

Contractors Hired	
Name	Description
OTHER	IN HOUSE

Waste Destinations

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Location		Description		
SAFETY CLEAN				
Agencies Notified / On Scene				
Agency		Notified	On Scene	
DNR		X		
Additional Comments				
SUBMITTED VIA SERTS WEB FORM REF # 7756 NRC#1070233 RPT REC. 1/7/14				
Enforcement Action/Citation				
Enforcement Action/Citation? No				
Case Activity Reports:				
Person Reporting				
Name	Representing / Address	Primary Phone	Secondary Phone	
BETH ERDMAN	WI DNR	(920) 303-5410 x		
Contractors Hired				
Name / Address			Zone Contractor Hired by DNR?	
			No	
Contacts				
Role	Name	Office Phone	Date	Time
Prepared By:	Beth Erdman	(920) 303-5410 x	01/06/2014	
Person Notified:	BETH ERDMAN	(920) 303-5410 x	01/06/2014	
Investigated By:	BETH ERDMAN	(920) 303-5410 x	01/06/2014	
Incident Commander:				
Spill Coordinator:	BETH ERDMAN, NE Region	(920) 303-5410 x	02/10/2014	
Electronic Attachments (list)				
Name		Type		



WAUPACA FOUNDRY



Legend

- 2010 Air Photos (WROC)
- Cities
- Villages

0.2 0 0.08 0.2 Miles

NAD_1983_HARN_Wisconsin_TM

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1: 5,020



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Note: Not all sites are mapped.

Notes

SPILL LOCATION: RED DOT

WTM: 708843, 516397



WAUPACA FOUNDRY, INC.

Plant 4

805 Ogden Street

Marinette, WI 54143

PHONE (715) 735-4999

WEB WaupacaFoundry.com

January 7, 2014

Mr. Gregory Sevener
Wisconsin Department of Natural Resources
101 N. Ogden Rd.
Peshtigo, WI 54157

Subject: Follow-up Report on January 6, 2014 Non-Contact Cooling Water System Oil Leak (Waupaca Foundry Plant 4, Marinette, Wisconsin)

Dear Mr. Sevener:

This report is submitted as a follow-up to Waupaca's January 6, 2014 phone notification to your office regarding an oil leak in the non-contact water cooling system and Waupaca's corrective actions to contain and eliminate the leak.

At approximately 11:00 p.m. on January 5, 2014, a Vertical Molding Machine maintenance worker notified the 3rd shift General Maintenance Foreman they believed they had a hydraulic oil leak in the system of Vertical Molding Machine #4. Trouble shooting efforts revealed no visible oil leaks however the system appeared to be low by approximately 100 gallons of hydraulic oil.

Further investigation pointed to an internal leak in the hydraulic system's oil cooler/heat exchanger which is cooled by once through cooling water. At that time the cooling water recirculation system tanks and the isolation weir to Outfall 001 were inspected for signs of hydraulic oil accumulation. Upon inspection the first isolation chamber of the weir was determined to contain some free oils, with the second chamber (after the oil exclusion device) containing an oil sheen. Upon this finding, the water circulation system was shut down.

The Plant 4 Emergency Response Team (ERT) was notified to recover the oil from the weir and inspect the outfall's discharge to the river. The ERT incident commander confirmed the oil was confined to the first chamber of the weir and only a slight sheen was noticeable in the second chamber before the V notch weir discharging to the Menominee River. Though difficult due to the darkness and extreme cold as well as the presence of ice, no sheen or free oil was observed on the water or the ice at the outfall's discharge point. Follow-up inspections after daybreak produced similar observations of the small patch of open water or on the lip of the ice surrounding the outfall.

Recovery of the oil in the first chamber "dirty side" of the weir was completed using skimming tools and a specially modified vacuum unit. The ERT team recovered and

drummed 275 gallons of oil and water mix before deploying additional oil booms to capture any residual oil that may have remained in the system.

The cause of the incident was the failure of a brand new heat exchanger of a new design that was utilized (ironically) as a state of the art reliability and system integrity improvement. The new unit serviced an internal hydraulic system with a reservoir containing 450 gallons of oil.

The failed heat exchanger was removed and examined by facility hydraulic experts but no point of failure could be determined. The part has been returned to the manufacturer for analysis. The failed heat exchanger was replaced by the previous existing model design already in use at the plant.

Based on the resulting repairs, it was estimated that approximately 100 gallons of oil escaped the hydraulic oil reservoir and entered the non-contact cooling water system. Due to system improvements implemented by Waupaca Foundry over the past several years, this oil was unable to escape to the Menominee River beyond the presence of a slight sheen after the final oil exclusion device.

Existing system factors which prevented free oil from escaping the cooling water system include the following:

- Waupaca Foundry 4 currently recirculates approximately 400 gallons of water per minute from Outfall 001 and returns it for reuse within the cooling water system. This resulted in approximately 65 percent of the oil laden water being returned to other plant systems in lieu of discharge to the weir's first chamber. This resulted in a large quantity of oil laden water which was confined to the 5500 gallon accumulation tank within the system. Due to the volume of water, this water is being scheduled for removal by a contracted oily water hauling/disposal service.
- As described above, the Outfall 001 weir has been designed with multiple chambers and an oil exclusion device to prevent free oils from being discharged to the outfall. With the water recycling system described above, flow through the unit is greatly decreased (between 2 and 16 gpm) thus reducing turbulence within the first chamber and allowing the weir's oil skimming ability to be greatly enhanced.
- For safety and environmental reasons, Waupaca Foundry has implemented a policy to eliminate petroleum oils where possible. As a result, the oil that was introduced to the cooling water system during this event was a vegetable based soybean oil product.

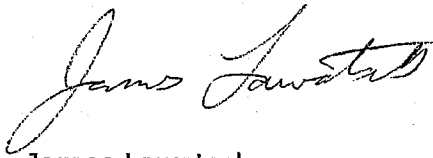
As a result of these activities, Waupaca Foundry believes the original conservative notification of 15 gallons or less of potentially spilled oil is in fact significantly less. As only a minor sheen of oil was observed as entering the outfall's discharge vs. any free floating oils, along with the clear success of the oil exclusion weir,

Waupaca is confident that the actual amount of oil released is significantly less than five gallons and may be less than a gallon.

Corrective actions to prevent a reoccurrence will include a review of the new hydraulic system installed on Vertical Molding Machine and a review of the findings from the manufacturer of the failed heat exchanger. Plans to expand the water reuse system are already being designed, which if successful would move the plant to a complete closed loop system and eliminate the requirement to discharge non-contact cooling water to the Menominee River.

If you have any additional questions regarding this information, please feel free to call me at 715-735-4970.

Sincerely,



James Lawatsch

Environmental Engineer

Cc: D. Korpi (WFI)

B. Esch (WFI)

M. Wellner (WFI)

R. Jezwinski (WFI)



January 6, 2013

Attn: James Lawatsch

Spill Reference: 20140106NE38-1 Waupaca Foundry Spill

Date of Spill: January 5, 2014

Dear Mr. Lawatsch:

The Wisconsin Department of Natural Resources ("Department") was notified that a hazardous substance spill occurred on the date and location referenced above. You have received this correspondence because based on the available information the Department believes you are responsible for addressing the hazardous substance spill under Section 292.11 Wisconsin Statutes. Wisconsin Statute 292.11(3) states:

"A person who possesses or controls a hazardous substance which is discharged or who causes the discharge of a hazardous substance shall take the actions necessary to restore the environment to the extent practicable and minimize the harmful effects from the discharge to the air, lands, or waters of the state."

Note, s.292.01(5)Wis.Stats., "Hazardous substance" means any substance or combination of substances including any waste of a solid, semisolid, liquid or gaseous form, which may cause or significantly, contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or which may pose a substantial present or potential hazard to human health or the environment because of its quality, concentration, physical, chemical or infectious characteristics. This term includes, but is not limited to, substances that are toxic, corrosive, flammable, irritants, strong sensitizers or explosives as determined by the department.

Further, s.292.11(3)Wis. Stats., "Discharge" means, but is not limited to spilling, leaking, pumping, pouring, emitting, emptying, or dumping.

This letter describes the legal responsibilities of a person who is responsible under Section 292.11 Wisconsin Statutes, the spill law, and explains what you need to do clean up the spilled material and "minimize the harmful effects" of any remaining contamination. A description of general spill response procedures and lists of treatment and disposal facilities are attached. You have 45 days from the time the spill was reported to complete this task and send us documentation and proof of what you did to comply.

See NR 708 Wisconsin Admin. Code: <http://www.legis.state.wi.us/rsb/code/nr/nr708.pdf> for detailed response requirements. More information on the Spill Program and Spill Response is available at the Department internet site: <http://www.dnr.wi.gov/org/aw/rr/spills/index.htm>.

The Department recommends you obtain the services of an environmental contractor and/or consultant who can properly manage this clean-up and knows how to help you to comply with the law. A list of environmental consultants and spill contractors that respond to spills is attached to this letter. A more complete list is available at <http://dnr.wi.gov/org/aw/rr/archives/pubs/RR024.pdf>. Environmental consultants and contractors can also be located through the internet and local phone directory.

Based on the information available about the spill and the actions taken by you to clean up the spill, the Department will determine if further investigation or cleanup is necessary. Do not wait for Department approval to take appropriate action, but do contact us if you have questions or need other assistance.

If you want a formal written response from us for a specific submittal, please be aware that a review fee is required in accordance with ch. NR 749, Wis. Adm. Code.

It is important that you keep the Department informed of your actions to clean up this spill. We prefer to work cooperatively with people to work through these events and get these projects done. Please know that failure to provide documentation of your actions is a violation of Wisconsin Administrative Code requirements and may result in enforcement actions against you. Please send all correspondence to me at the address on the above letter head.

The Department appreciates your quick action to initial actions to address this situation. If you have any questions regarding this notification or Wisconsin's requirements for spill cleanup, please contact me at (920) 303-5410 or e-mail at Beth.Erdman@Wisconsin.gov.

Sincerely,



Beth A. Erdman

Wisconsin Department of Natural Resources