

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
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June 4, 2018

David Beattie
Senior Environmental Technologist
Superior Refining Company LLC
2407 Stinson Avenue
Superior, WI 54880

SUBJECT: No-objection to temporary treatment system for water containing firefighting materials - WI-0003085-08-0

Dear Permittee:

The Department of Natural Resources (hereafter department) has reviewed the plans and specifications for the proposed temporary treatment system to treat the water contaminated by firefighting materials at the Superior Refining Company LLC in Superior, Wisconsin. The plan was submitted by David Beattie, Senior Environmental Technologist at Superior Refining Company LLC and certified by Thomas L. Holstrom, PE from Barr Engineering, Duluth, MN, on May 25, 2018. Since construction had already begun on the treatment system the department is not able to approve the plans and specifications as stated in NR 108.04(5). However, the department does not object to the following temporary treatment system that has been constructed.


Superior Refining Company has put in a granular activated carbon (GAC) treatment system at the end of their wastewater treatment plant to remove the contaminants from water containing firefighting materials. The primary removal mechanism is two, 10,000 lb GAC pressure vessels (360 cubic feet each) in series followed by two, parallel 5,000 lb GAC pressure vessels (180 cubic feet each; for use during lead vessel changeout). Prior to this is an equalization tank and pre-treatment bag filters. Two polishing ion exchange/resin units (70 cubic feet each) in parallel for additional treatment as needed are installed after the GAC treatment. The effluent goes through another set of bag filters before being discharged to the constructed wetland.

Based on this review, please be advised that the department does not object to the proposed temporary treatment system plan, subject to the following condition(s):

1. That the department is notified when discharge commences and again when the discharge ceases in accordance with the WPDES General Permit (WI-0046531-06-0) Conditional Approval Letter.
2. That the proposed treatment system is operated effectively and efficiently when the system is placed into operation.
3. The concentrations of PFOS and PFOA will be monitored and used to determine when the GAC will be replaced. A 50% breakthrough of the influent concentration of PFOS or PFOA in the lead vessel will indicate that the GAC needs to be changed.

If you should have any questions regarding this determination, please feel free to contact Jason Knutson at Jason.Knutson@wisconsin.gov or (608) 267-7894.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason R. Knutson". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Jason Knutson
Wastewater Section Chief
Water Quality Bureau

cc: Permit File
Eric Devenecia