

Notice: Pursuant to chs. NR 200 and 205, Wis. Adm. Code, this notice of intent (NOI) is required to request coverage under the Wisconsin Pollutant Discharge Elimination System (WPDES) Permit No. WI-0046566-07-0 for discharges of contaminated groundwater to waters of the state of Wisconsin. Failure to complete this form in its entirety may result in a returned NOI or a denied NOI. Personal information collected will be used for administrative purposes and may be provided to requestors to the extent required by Wisconsin Open Records law [ss. 19.31-19.39, Wis. Stats.].

SECTION I: FACILITY/PROJECT LOCATION INFORMATION			
Facility/Project Name Former Navistar/RMG Foundry		Facility Mailing Address (i.e. PO Box, Street, or Route) 1401 Perkins Ave.	
Facility/Project Physical Address (i.e. Street or Route) 1401 Perkins Ave.		City, State, Zip Code Waukesha, WI, 53186	
County Waukesha	Facility Phone No. (262) 548-1600	Facility Fax No. (262) 548-1672	Facility Email Address
SECTION II: FACILITY CONTACT INFORMATION			
Facility Operator/Plant Manager Mike Flath		Title Facilities Project Engineer	
Company RMG Foundry		Contact Mailing Address (i.e. PO Box, Street, or Route) 1401 Perkins Ave.	
City, State, Zip Code Waukesha, WI, 53186		Contact Phone No. (262) 548-1602	Alternative Phone No.
Contact Fax No. (262) 548-1672		Contact Email Address Michael.Flath@ren-mfg.com	
Discharge Monitoring Contact Name Richard Gnat		Title Principal	
Company KPRG and Associates, Inc.		Contact Mailing Address (i.e. PO Box, Street, or Route) 14665 W. Lisbon Rd., Suite 1A	
City, State, Zip Code Brookfield, WI, 53005		Contact Phone No. (262) 781-0475	Alternative Phone No.
Contact Fax No. (262) 781-0478		Contact Email Address richardg@kprginc.com	
Authorized Representative Name Anthony Aiello		Title Assistant Treasurer	
Company Navistar, Inc.		AR Mailing Address (i.e. PO Box, Street, or Route) 2701 Navistar Dr.	
City, State, Zip Code Lisle, IL, 60532		AR Phone No. (331) 332-6049	Alternative Phone No.
AR Fax No.		AR Email Address Anthony.Aiello@navistar.com	

SECTION III: FACILITY OWNER MAILING ADDRESS (if different from Authorized Representative)		
Facility Owner Name	Title	
Parent Company	Owner Mailing Address (i.e. PO Box, Street, or Route)	
City, State, Zip Code	Owner Phone No.	Alternative Phone No.
Contact Fax No.	Contact Email Address	

SECTION IV: DISCHARGE CHARACTERIZATION					
Type of Wastewater (check all that apply):	Discharge Frequency (e.g. Annual, Monthly, Daily)	Average Daily Flow (gallons of water discharged per day)	Type of Wastewater (check all that apply):	Discharge Frequency (e.g. Annual, Monthly, Daily)	Average Daily Flow (gallons of water discharged per day)
<input type="checkbox"/> Treated wastewater from groundwater remediation project			<input type="checkbox"/> Cleaning or decontamination wastewaters from the cleaning of treatment equipment for a remediation project		
<input checked="" type="checkbox"/> Infiltration or injection of a substance or remedial material for remediation of soil or groundwater	Daily	10,000 gal	<input type="checkbox"/> Other (describe type)		
<input type="checkbox"/> Treated wastewater from dewatering of construction trenches or pits			<input type="checkbox"/> Other (describe type)		
<input type="checkbox"/> Landspreading or spray irrigation of agricultural chemical contaminated wastewater			<input type="checkbox"/> Other (describe type)		

SECTION V: ELIGIBILITY CHECKLIST
<p>1. Is the wastewater discharged from and/or to properties within tribal lands (i.e. land owned by or held in trust for the tribes and land within recognized reservation boundaries)?</p> <p><input type="checkbox"/> Yes. Your discharge is not eligible for this General Permit. <i>If all discharges from your facility go to or come from properties in tribal lands, you do not require regulation under a WPDES discharge permit. Therefore, skip the rest of the NOI and sign the last page. We will remove you from our tracking system. The Tribe or United States</i></p>

Environmental Protection Agency (EPA) regulates discharges within tribal lands.

No. Proceed to question 2.

2. Is the wastewater discharged to a Publicly Owned Treatment Works (i.e. sanitary sewer)? A septic system is not considered a sanitary sewer.

Yes. Your discharge is not eligible for this General Permit. *If all discharges from your facility go to a sanitary sewer, you do not require regulation under a WPDES discharge permit. Therefore, skip the rest of the NOI and sign the last page. We will remove you from our tracking system. If at some point in the future operations at your facility result in a discharge, you will need to inform the Department. If only some or no discharges from your facility go to the sanitary sewer, please proceed to question 3.*

No. Proceed to question 3.

3. Are any of the following wastewaters discharged or mixed with the above wastewaters to surface water or groundwater: Contact or noncontact cooling water, water from boiler cleaning operations, air compressor condensate contaminated with oil and grease, softener regeneration backwash, municipal wastewater, domestic wastewater, or process wastewaters from the production of any material or product, or other wastewater not otherwise cover by this general permit?

Yes. Your discharge is not eligible for this General Permit. *Skip the rest of the NOI and complete the certification on last page. Contact the Department to obtain application for an individual WPDES discharge permit.*

No. Proceed to question 4.

4. What is the receiving water for your discharge? If your facility has more than one outfall, indicate in the space provided which outfalls go to groundwater and which go to surface waters. (*check all that apply*)

Groundwater Discharge (*any wastewater that is allowed to infiltrate or seep into the soil from a permeable surface including but not limited to any drain field, agricultural field, ditch, swale, depression, trench or pit, adsorption pond, infiltration pond, rain garden, prairie, or vegetative area that may impact groundwater quality*). **If you will only be discharging to groundwater, please proceed to question 5.**

Outfall #(s):

Wetland Discharge (*any discernible, confined and discrete conveyance system including but not limited to any pipe, ditch, channel, tunnel, conduit, swale, or storm sewer that will carry wastewater to a wetland. Wetlands mean an area where water is at, near or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which has soils indicative of wet conditions*). **If you will only be discharging to wetlands, please proceed to question 5.**

Outfall #(s):

Note: *The Department will need to determine if your discharge would cause significant adverse impacts to wetlands*

Surface Water Discharge (*any discernible, confined and discrete conveyance system including but not limited to any pipe, ditch, channel, tunnel, conduit, swale, or storm sewer that will carry wastewater to a creek, stream, pond, marsh, bay, reservoir, river, lake, or other surface water within the state of Wisconsin*). **Proceed to question 4A.**

Outfall #(s):

A. What is the name(s) of the surface water your discharge enters?

Proceed to question 4B.

B. What is the Water Body Identification Code (WBIC) of the surface water your discharge enters?

Proceed to question 4C.

Note: The WBIC for a specific surface water can be found at: <http://dnr.wi.gov/water/waterSearch.aspx>.

C. Is the discharge directly to a surface water classified as an outstanding or exceptional resource waters as defined in ch. NR 102, Wis. Adm. Code.?

Yes. Your discharge is not eligible for this General Permit. *Skip the rest of the NOI and complete the certification on last page. Contact the Department to obtain application for an individual WPDES discharge permit.*

No. Proceed to question 4D.

D. Is the discharge directly to a surface water classified as a public water supply (i.e. Lake Superior, Lake Michigan and Lake Winnebago) in ch. NR 104, Wis. Adm. Code?

Yes. Your discharge is not eligible for this General Permit. *Skip the rest of the NOI and complete the certification on last page. Contact the Department to obtain application for an individual WPDES discharge permit.*

No. Proceed to question 5.

5. Does the discharge contain water treatment additives (i.e. biocides such as microbicides, fungicides, molluscicides, chlorine, etc.) or water quality conditioners (i.e. scale and corrosion inhibitors, pH adjustment chemicals, oxygen scavengers, conditioning agents, water softening compounds, etc.) that may enter surface water or groundwater without receiving wastewater treatment or that are used in a treatment process but are not expected to be removed by wastewater treatment?

Yes. For each additive used, please fill out and attach an Additive Review Worksheet. *Additive Review Worksheets must be completed to receive coverage under this general permit. The Additive Review Worksheet is not required for additives with active ingredients consisting of chlorine, hypochlorite, sulfuric acid, hydrochloric acid or sodium hydroxide. Also, chemicals used in an industrial process generating wastewater that eventually receives treatment or chemicals added as part of wastewater treatment process (such as ferric chloride, alum or pickle liquor) are not considered water treatment additives and need not require an additive review. Proceed to question 6.*

No. Proceed to question 6.

6. Will chlorine-based compounds be used to control the growth of micro-organisms in the treatment system or used to decontaminate the treatment system after completion of the remediation project?

Yes. Proceed to question 6A.

No. Proceed to question 7.

A. Will chemicals be used to dechlorinate the wastewater prior to discharge to surface water?

Yes. The wastewater will be dechlorinated with chemicals. Proceed to question 7.

No. The wastewater will not be dechlorinated with chemicals. Proceed to question 7.

7. Is a discharge management plan attached to this NOI that includes all the information necessary from Section 3 of the permit?

- Yes. Proceed to question 8.**
 No. This form will be considered incomplete and returned to you.

8. Has the groundwater at the site been analyzed for contaminants and are the results attach to the discharge management plan?

- Yes. Proceed to question 9.**
 No. This form will be considered incomplete and returned to you.

9. If a treatment facility is required for the treatment of contaminated groundwater, have the plans and specifications been submitted to or approved by the department under s. 281.41, Wis. Stats., and ch. NR 108, Wis. Adm. Code?

- Yes. Proceed to Section VI.**
 No. Please contact wastewater plan review staff to find out how to get the plans approved. Proceed to Section VI.

Note: Department wastewater plan review staff can be found here:

<http://dnr.wi.gov/topic/wastewater/planreviewers.html>.


Additionally, department plan submittal requirements can be found here:

<http://dnr.wi.gov/topic/wastewater/AdequateSubmittal.html>.

SECTION VI: CERTIFICATION

This form must be signed by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2., Wis. Adm. Code. To delegate signatory authority to a duly authorized representative, please submit a Delegation of Signature Authority (DSA) form (Form 3400-220).

I certify under penalty of law that these documents and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Representative Name Anthony Aiello	Title Assistant Treasurer
Authorized Representative Signature 	Date Signed 1/29/20
Submitter Name (If different from Authorized Representative)	Title
Submitter Signature	Date Signed

State of Wisconsin
Department of Natural Resources
Bureau of Water Quality
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Notice of Intent (NOI)
Contaminated Groundwater from Remedial
Action Operations
WPDES Permit No. WI-0046566-07-0
Rev. 06/2018

Please print and sign this certification page. Scan and email the completed form, certification page and any other supporting information to the department regional general permit reviewer at least thirty (30) business days before the expected start date of discharge. A listing of the general permit reviewers for each region with mailing addresses and phone numbers can be found at <http://dnr.wi.gov/topic/wastewater/GeneralPermits.html>. Please scroll to the "How to Apply" section and click the department region that the discharge is located in.

WPDES DISCHARGE MANAGEMENT PLAN FOR REMEDIATION

On behalf of Navistar, Inc. (Navistar), KPRG and Associates, Inc. (KPRG) is submitting a Discharge Management Plan as part of a Notice of Intent (NOI) under Wisconsin Pollution Discharge Elimination System (WPDES) Wastewater Discharge Permit (WI-0046566-07) for Contaminated Groundwater from Remedial Action Operations towards development of a Remedial Action Plan. This Discharge Management Plan is being included as an attachment to the WPDES NOI that is being submitted as part of a NR 140.28(5) remedial action temporary exemption request. The WPDES permit is required because a chemical oxidant will be injected below groundwater into the saturated bedrock as part of the remedial action of groundwater outlined in the remedial action temporary exemption request. The following outlines the Discharge Management Plan details.

The various phases of site investigation have identified the primary constituent of concern to be trichloroethene (TCE) and its breakdown products. The residual impacts are primarily within pockets of soil in the southwest parking lot, the parking lot south of the facility (between Raymond Rd. and The Strand), in and near the core room, and also within groundwater. This plan addresses areas in and near the core room.

The chemical oxidant injections are being performed as outlined in the NR140.28(5) remedial action temporary exemption request. The chemical oxidant injection will consist of the following activities described below.

General Description of Operations

Pilot Test

The pilot test will include the injection of an 18% sodium persulfate at one (1) injection point for a total of approximately 900 gallons of injectate. The injection point will be one drilled well (IW-1) in the location shown on Figure 1. The injection will be performed from the bottom-up with the interval being from approximately 60 feet to 20 feet bgs providing for treatment through the impacted saturated zone. The selected treatment chemistry will be injected into the drilled well and then into the surrounding formation. The packer system will be raised through the vertical treatment zone in five-foot intervals while simultaneously injecting the treatment chemistry into the formation. The total volume, pressure and rate of treatment chemistry injection will be monitored and amended according to field conditions to maximize effectiveness. The anticipated operating pressure for the injection is 20-60 pounds per square inch (psi) and the maximum operating pressure is 100 psi, which should not create secondary permeability within the subsurface.

Water levels, pH and specific conductance, DO and ORP will be monitored during the injection and on a daily basis for one week after injection in monitoring wells MW-23, MW-23D, MW-24, and MW-24D. In addition, one day, one week, two weeks and four weeks after injection, groundwater samples will be collected for laboratory analysis of CVOCs, total/dissolved iron and sulfate to assist in evaluating the effectiveness of the injection. The resulting pilot test data will be used to adjust the proposed saturated zone injection, if necessary.

Saturated Zone

The proposed remedial action to be implemented as part of this request to achieve the applicable response objectives required by s. NR 140.26 is the in-situ injection of a chemical oxidant. The remediation will be accomplished using sodium persulfate. The above injectate material is identified as the preferred treatment chemistry for TCE and has been shown to successfully breakdown TCE and its associated breakdown products in saturated soils.

The remediation will be accomplished using sodium persulfate. Sodium persulfate is a stable, highly soluble material, which generates the sulfate radical when activated, which is a very strong oxidant that is capable of oxidizing volatile organic compounds. Sodium persulfate is activated using ferrous iron, sodium hydroxide, lime or hydrogen peroxide. The byproduct of the persulfate reaction is sodium monosulfate that subsequently breaks down into sulfate ions, which is the end of the reaction.

The appropriate chemistry and associated dosing requirements are based upon the target remediation goal for groundwater that is set by the promulgated Enforcement Standards (ESs) for each specific compound. Based upon preliminary estimates, an average of up to 1,600 gallons of 18% catalyzed sodium persulfate will be injected into each injection location. The total volume of material to be injected is anticipated to be 48,000 gallons. The previously mentioned injection parameters may be altered based upon field conditions; however only the minimum amount of activated sodium persulfate will be used that is necessary to achieve the response objectives as required by s. NR 140.26(2) and subsequently s. NR 140.24(2).

A total of up to thirty (30) injection wells will be spaced based on the results of the pilot test and the post-pilot test groundwater monitoring as shown on Figure 1. This area is where the predominant amount of TCE mass is located and focusing on this area will remove the greatest amount of TCE.

The full-scale injection wells will be constructed in a similar fashion to the pilot test injection well. The depth of each well will be further determined based on the results of the pilot test, but they may be extended up to 60 feet bgs. The vertical treatment zone will extend from 20 feet bgs to 60 feet bgs, providing for treatment through the residually impacted saturated zone. The selected treatment chemistry will be injected through the wells into the surrounding formation. The packer system will be raised through the vertical treatment zone in five-foot intervals while simultaneously injecting the treatment chemistry into the formation. The total volume, pressure and rate of

treatment chemistry injection will be monitored and amended according to field conditions to maximize effectiveness. The anticipated operating pressure for the injection is 20-60 pounds per square inch (psi) and the maximum operating pressure is 100 psi, which should not create secondary permeability within the subsurface. The injection wells will remain in place in the event that a polishing injection is needed based on the results of the post-injection groundwater monitoring.

Post-Remedial Action Monitoring


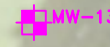

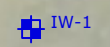

To monitor groundwater quality conditions after the proposed injections, quarterly groundwater monitoring will continue for the duration of the interim period preceding RAP approval, and in accordance with the approved RAP thereafter. The groundwater sampling will be performed on the existing monitoring well network, which consists of 46 monitoring wells. The samples will be sent to Pace Analytical for analysis under a completed chain-of-custody.

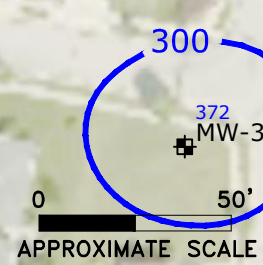
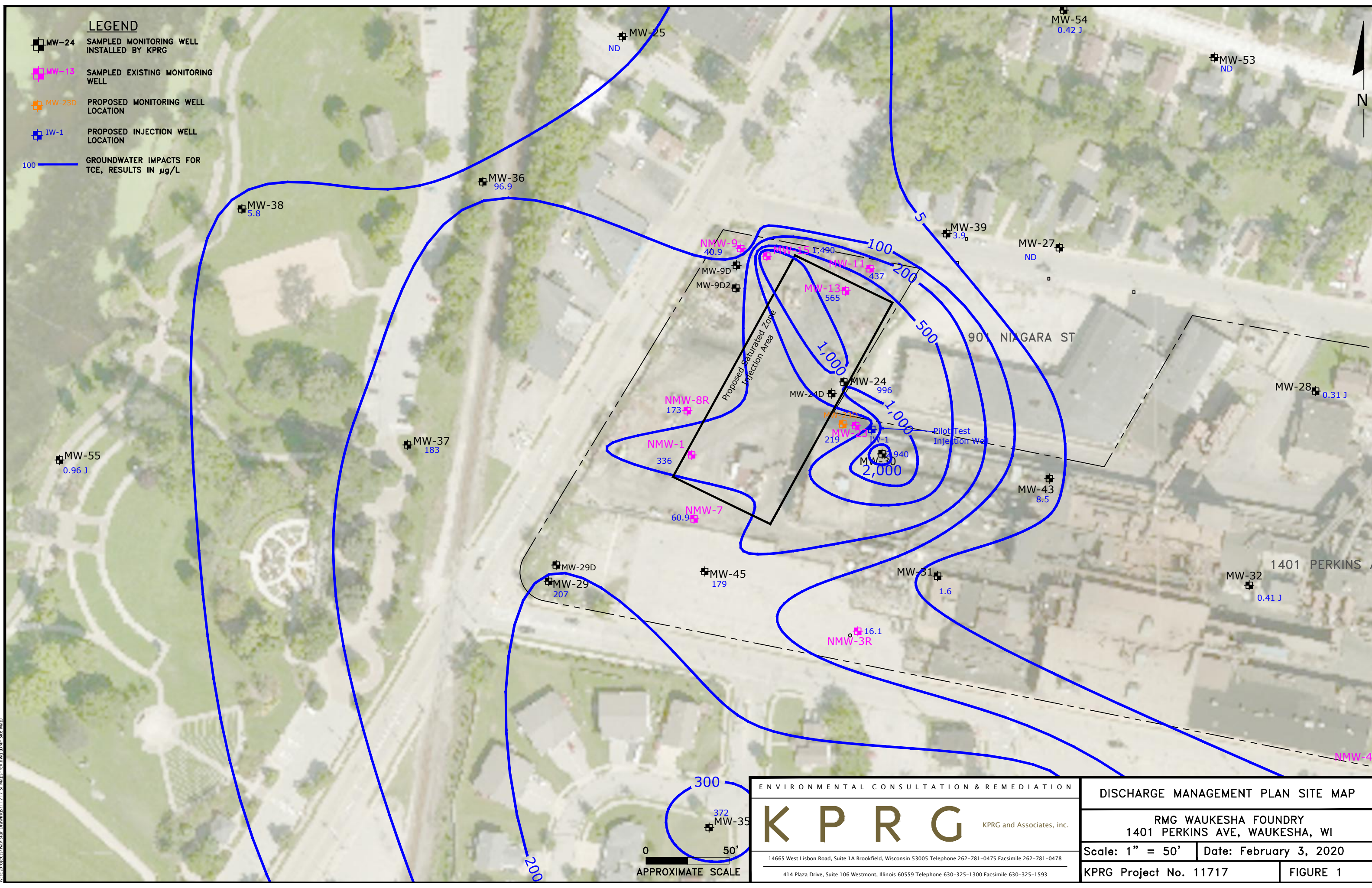
The injection for treatment of TCE is not expected to create a vapor concern since the injections will take place below surface areas capped by asphalt, where the asphalt acts as a vapor barrier.

Field activities will be logged and documented during the injections.

FIGURE

LEGEND

-  MW-24 SAMPLED MONITORING WELL INSTALLED BY KPRG
-  MW-13 SAMPLED EXISTING MONITORING WELL
-  MW-23D PROPOSED MONITORING WELL LOCATION
-  IW-1 PROPOSED INJECTION WELL LOCATION
-  100 GROUNDWATER IMPACTS FOR TCE, RESULTS IN µg/L



ENVIRONMENTAL CONSULTATION & REMEDIATION

K P R G KPRG and Associates, inc.

14665 West Lisbon Road, Suite 1A Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478
414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

DISCHARGE MANAGEMENT PLAN SITE MAP

RMG WAUKESHA FOUNDRY
1401 PERKINS AVE, WAUKESHA, WI

Scale: 1" = 50' Date: February 3, 2020

KPRG Project No. 11717 FIGURE 1

T:\Projects\Nuclear Drawings\11717\SI Maps\rev.dwg (DMS Site Map)

TABLE

Table 1. VOCs Analytical Data

Well No. Parameter	Date	WDNR NR 140 Standards		NMW-1	NMW-7	NMW-8R	NMW-9	MW-9D	MW-9D2	MW-11	MW-13	MW-15	MW-23	MW-24	MW-24D	MW-30
		PAL	ES	6/26/2019	6/26/2019	6/26/2019	7/1/2019	7/1/2019	7/1/2019	6/25/2019	6/25/2019	7/1/2019	6/25/2019	6/25/2019	6/25/2019	6/26/2019
1,1,1-Trichloroethane		40	200	<u>52.6</u>	21.4	32.2	<0.24	8.4	<0.24	9.5	17.7	12.1	171	221	0.29 J	274
1,1,2,2-Tetrachloroethane		0.02	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane		0.5	5	<1.1	<0.55	<1.1	<0.55	<1.1	<0.55	<1.4	<0.55	<2.8	<27.6	<27.6	<0.55	<27.6
1,1-Dichloroethane		85	850	16.1	6.2	9.7	0.46 J	4.6	0.40 J	5.1	10.5	7.2	78.9	<u>86.2</u>	<0.27	<u>91.4</u>
1,1-Dichloroethene		0.7	7	<u>6.8</u>	<u>3.6</u>	<u>4.7</u>	0.41 J	<u>2.2</u>	0.34 J	<u>2.0 J</u>	<u>5.0</u>	<u>2.3 J</u>	48.6 J	60.9	<0.24	69.1
1,2,4-Trichlorobenzene		14	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene		60	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane		0.5	5	<0.56	<0.28	<0.56	<0.28	<0.56	<0.28	<0.70	<0.28	<1.4	<14.0	<14.0	<0.28	<14.0
1,2-Dichloropropane		0.5	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene		120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene		15	75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane		0.06	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride		0.5	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene		NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane		80	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform		0.6	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane		3	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene		7	70	<u>8.0</u>	3.0	2.9	4.3	<u>11.4</u>	5.7	<u>16.5</u>	<u>49.5</u>	<u>19.3</u>	<u>43.1 J</u>	<u>46.9 J</u>	6.8	<u>42.7 J</u>
cis-1,3-Dichloropropene		0.04	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane		6	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane		200	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-butadiene		NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride		0.5	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene		0.5	5	<0.65	<0.33	<0.65	<0.33	<0.65	<0.33	<0.82	<0.33	<1.6	<16.3	<16.3	<0.33	<16.3
trans-1,2-Dichloroethene		20	100	<2.2	<1.1	<2.2	<1.1	<2.2	<1.1	<2.7	2.0 J	<5.5	<54.5	<54.5	<1.1	<54.5
trans-1,3-Dichloropropene		0.04	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene		0.5	5	342	172	237	29.6	215	46.7	258	367	294	2,940	3,710	1.9	3,550
Trichlorofluoromethane		NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride		0.02	0.2	<0.35	<u>0.22 J</u>	<0.35	<0.17	<0.35	<0.17	<0.44	<0.17	<0.87	<8.7	<8.7	<0.17	<8.7

Notes: Results are in ug/L.

PAL - Preventative Action Limit

ES - Enforcement Standard

NS - No Standard

* - Sample collected by others

B - Analyte detected in Method or Trip Blank

J or Q - Estimated concentration between the Limits of Detection and Quantification

NA - Not Analyzed

ND - Not Detected

Underlined - Exceeds PAL**Bold** - Exceeds ES