WISCONSIN
DEPT. OF NATURAL RESOURCES

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

GENERAL PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Chapter 283, Wis. Statutes, a facility or operation that meets the applicability criteria listed in Part 1 of this General Permit and generates

Contaminated Groundwater from Remedial Action Operations

is permitted to discharge remedial action wastewater to surface or ground water resources of Wisconsin in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit.

State of Wisconsin Department of Natural Resources
For the Secretary

By Thomas J Mugan
for Susan Sylvester, Director
Bureau of Water Quality
Division of Water

July 31, 2012
Date Permit Signed/Issued

PERMIT EFFECTIVE DATE - August 1, 2012 **EXPIRATION DATE - June 30, 2017**

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1. APPLICABILITY CRITERIA

1.1. Activities Covered

This permit applies to discharges of treated wastewater from contaminant removal and remediation projects to surface water resources or groundwater of Wisconsin where the Department determines that the discharge complies with the provisions of ch. 283, Wisconsin Statutes. Discharges that lower the water quality of exceptional resource waters as defined in s. NR 102.11, Wisconsin Administrative Code are allowed only in cases where the discharge meets the antidegradation requirements of ch. NR 207, Wis. Adm. Code, such as preventing or correcting public health problem or a groundwater contamination situation.

1.2. Activities Not Covered

This permit does not authorize discharges that meet any of the following conditions:

- discharges directly to an outstanding resource water as defined in s. NR 102.10, Wis. Adm. Code, or discharges that would lower the water quality of downstream outstanding resource waters;
- discharges to waters classified as a public water supply in ch. NR 104, Wis. Adm. Code;
- discharges to a wetland and the Department has determined that the discharge of pollutants will not meet the requirements of ch. NR 103, Wis. Adm. Code;
- discharges containing pollutants (acrylonitrile is an example) that are not limited by this permit and the discharge of these pollutants have a reasonable potential to exceed surface water quality standards and limitations calculated in accordance with chs. NR 102, NR 105, NR 106, and NR 207, Wis. Adm. Code, or violate groundwater standards contained in ch. NR 140, Wis. Adm. Code;

2. REQUIREMENTS FOR ALL DISCHARGES

2.1. Determination of Coverage

All facilities covered under this permit must have received a letter of determination from the Department authorizing the remedial action operation to discharge treated wastewater under this general permit (or its previous versions).

2.2. Treatment of Contaminated Wastewater

All discharges of contaminated groundwater, including pump test wastewaters, shall be treated for pollutant removal prior to discharge. The level of treatment shall be equivalent to Best Available Treatment Economically Achievable as defined in section 301(b)(2) of the Clean Water Act and s. 283.03(2)(b), Wis. Stats. The treatment units shall be adequately sized, designed, and operated to remove contaminants identified through sampling and characterization of the contaminated groundwater. Section 281.41, Wis. Stats, requires Department approval of plans and specifications for wastewater treatment systems. When treatment units for contaminated groundwater are supplier furnished package units, a minimum plan submittal is a diagram, a summary of the design basis, and unit sizing calculations.

2.3. Discharge Management Plan

All discharges under this permit shall be consistent with a discharge management plan that has been approved by the Department. The Department may exempt a facility from monitoring contaminants regulated by this permit, if the permittee can demonstrate that the contaminants will not be present in the effluent discharge. The discharge management plan shall also include monitoring that confirms: (1) compliance with Best Available Treatment as specified in part 2.2, above, (2) that there is no reasonable potential to exceed surface water

quality standards listed in Ch. NR 105, Wis. Adm. Code, tables 1 through 9, for pollutants not directly limited by this permit, or (3) that there is no reasonable potential to exceed groundwater quality standards listed in Ch. NR 140, Wis. Adm. Code, tables 1 through 3, for pollutants not directly limited by this permit. The Department may also approve a management plan that specifies alternate monthly average effluent limitations (up to a level equivalent to a NR 140, Wis. Adm. Code, Enforcement Standard) for discharges to groundwater.

2.4. Analysis Test Methods

The wastewater sampling and testing methods shall be conducted as specified in Part 8.9 of this permit, unless the permittee requests and the Department approves (in writing) the use of an alternate, equivalent test method due to factors specific to the discharge site.

2.5. Monitoring Frequency

The permittee shall record the total daily volume of wastewater discharged under this permit on each day there is a discharge. Unless otherwise specified in this permit (as in parts 6 and 7), the monitoring parameters shall be tested at a weekly frequency during the initial six weeks of discharge and thereafter at a monthly frequency, except as follows: after the discharge has been monitored for at least one year, at least 16 sample results have been generated, no analysis results have exceeded 60% of any permit discharge limitation, and there is little chance that a high pollutant level may abruptly pass through the treatment unit, the Department may approve, in the discharge management plan, a quarterly monitoring frequency.

2.6. Exceedance Reporting

The permittee shall report exceedance of any limit for each parameter regardless of monitoring frequency (refer to standard requirement 8.4 of this permit for noncompliance reporting requirements). For example, monthly, weekly, and daily limits shall be met even when only one sample is collected per month. The permittee may monitor more frequently than required for any parameter.

2.7. Reporting Monitoring Results

Monitoring results obtained during the specified reporting period shall be summarized and reported on a Department Wastewater Discharge Monitoring Report (DMR) or other equivalent form or reporting system approved by the Department (including the electronic Discharge Monitoring Report (eDMR) system when available). Monitoring results shall be reported on a monthly basis unless the Department approves a quarterly or annual reporting period in the discharge management plan. The monitoring report is to be returned to the Department no later than the 15th day of the month following the end of the reporting period or by the submittal date indicated on the form, whichever is later. When submitting a Department paper DMR form, the original (and one copy if specified on the form) shall be submitted to the return address printed on the form.

2.8. Chlorine for Bacterial Control

Chlorine may be used to control the growth of micro-organisms in the treatment system. The Department recommends a chlorination system that cleans and chlorinates the treatment unit when it is out of service, and then captures the cleaning wastewater for acceptable offsite disposal, such as a sanitary sewer. Alternatively, the cleaning wastewater may be treated for removal of suspended solids and other pollutants, and then discharged under this permit. In all cases, the discharge of chlorinated water to surface waters under this permit shall not contain detectable amounts of Total Residual Chlorine as determined by using Standard Methods #408B, D or E (DPD titration or colorimetric), EPA method 330.3, or by using an ion specific electrode approved in Ch. NR 219, Wis. Adm. Code. Biocides, other than chlorine, may not be discharged under this permit.

2.9. Visible Foam and Floating Solids

There shall be no discharge of floating solids or visible foam to surface waters in other than trace amounts.

2.10. pH Limits and Monitoring for Discharges to Surface Waters

The pH of all surface water discharges authorized by this permit shall be maintained within the range of 6.0 to 9.0 standard units. A grab sample shall be analyzed whenever treatment unit cleaning solutions are discharged or when other activities could significantly change the pH of the water.

2.11. Water Treatment Additives

The discharge of water treatment additives is prohibited under this permit unless the water treatment additive use is approved, in writing, by the Department. Water treatment additive discharge concentrations shall be below the level of concern for impacts to aquatic life and human health as specified in s. NR 106.10, Wis. Adm. Code, for surface water discharges, or for impacts to human health as specified in ch. NR 140, Wis. Adm. Code, for discharges to groundwater. The permittee shall maintain records of the monthly water treatment additive use including the additive name, manufacturer, and daily maximum amount used.

The permittee shall provide the following information regarding water treatment additives to receive Department approval:

- the commercial name of the additive and Material Safety Data Sheet (MSDS);
- the amount or concentration to be used;
- the proposed frequency of use;
- the anticipated discharge concentration; and
- Aquatic toxicity information, consisting of at least one 48-hour LC_{50} or EC_{50} value for Daphnia magna or Ceriodaphnia dubia, and at least one 96-hour LC_{50} or EC_{50} value for either fathead minnow, rainbow trout, or bluegill. The Department will only consider toxicity information on the whole product, not just the active ingredient or component of a product

2.12. Inspection and Maintenance

Separated contaminants, and solids if present, shall be removed on a periodic basis to maintain the treatment capacity and efficiency of the system. The water discharge side of the treatment unit shall be maintained clean and there shall be no contaminant sheen or scum on the effluent side of the equipment.

2.13. Prevent Overflow

Dikes or berms constructed as part of a treatment facility shall be designed to have no above ground leakage through or over the outer surface of such dikes or berms.

2.14. Impaired Waters & TMDL Requirements for Surface Water Discharges

2.14.1 Report Discharge to an Impaired Surface Water. The permittee shall report, on the annual discharge monitoring report, that the facility has a detectable pollutant of concern discharge to an impaired surface water or a surface water with a State and EPA approved Total Daily Maximum Load (TMDL) allocation.

Note: The section 303(d) list of Wisconsin impaired surface water bodies may be obtained by contacting the Department or by searching for the section 303(d) list on the Department's Internet site. The Department updates the section 303(d) list approximately every two years. The updated list is effective upon approval by EPA. The current link to the section 303(d) list is: http://dnr.wi.gov/org/water/wm/wqs/303d/.

2.14.3 TMDL Compliance. Facilities discharging a pollutant of concern under this permit shall meet the requirements of a State and Federally Approved Total Daily Maximum Load (TMDL) allocation for their

discharge location that is in effect on the start date of this permit. Existing remedial action discharges covered under this permit are expected to be consistent with the baseline allocation granted to Wisconsin General Permit discharges in all State and EPA approved TMDLs in effect on the start date of this permit.

Note: A "Pollutant(s) of concern" means a pollutant that is contributing to the impairment of a water body. State and Federal Approved TMDLs can be identified by contacting the Department, or by searching for the State and Federal Approved TMDL list on the Department Internet site. The current link to identify the list of State and Federal Approved Final TMDLs is:
http://dnr.wi.gov/org/water/wm/wqs/303d/TMDL.html

2.14.4 New or Increased pollutant discharge to a 303(d) listed impaired surface water. A permittee may not establish a new wastewater discharge of a pollutant concern to an impaired water body or significantly increase an existing discharge of a pollutant of concern to an impaired water body unless the new or increased discharge does not contribute to the receiving water impairment, or the discharge is consistent with a State and Federal approved total maximum daily load (TMDL) allocation for the impaired water body. Any new or significantly increased pollutant of concern discharge to an impaired surface water authorized under this general permit shall be consistent with the baseline load allocation for general permittees within the basin.

Note: Wisconsin TMDL allocations are primarily being developed for sediment and phosphorus which are normally very low or non-detectable in remedial action wastewater discharges.

3. ADDITIONAL REQUIREMENTS FOR DISCHARGE TO SURFACE WATERS FROM REMEDIATION OF PETROLEUM PRODUCT CONTAMINATION

Discharge to surface waters of remedial action wastewater shall meet the requirements in this section including the effluent limitations and monitoring requirements specified in Table 3.1. Monitoring during a specified sampling period is required when remedial action wastewater is discharged to surface water resources anytime during that period. Samples representative of the wastewater effluent shall be taken at each outfall following treatment and prior to discharge. Discharge to surface waters includes discharge to storm sewers or drainage channels that convey wastewater to creeks, wetlands, streams, rivers and lakes.

3.1. Effluent Limits and Monitoring Requirements

Parameter	Effluent Limitations	Sample Frequency	Sample Type	Notes
Flow	gallons per day	Daily	Total daily	
Benzene	50 ug/L Monthly Average	See Part 2.5	Grab	
Total BETX	750 ug/L Daily Maximum	See Part 2.5	Grab	See Part 3.4
Methyl Tert Butyl Ether	—	See Part 2.5	Grab	
Polynuclear Aromatic Hydrocarbons	0.1 ug/L Monthly Avg.	See Part 2.5	Grab	See Part 3.5
Benzo(a)pyrene	0.1 ug/L Monthly Avg.	See Part 2.5	Grab	See Part 3.6
Naphthalene	70 ug/L Monthly Avg.	See Part 2.5	Grab	
Total Recoverable Lead	50 ug/L Daily Maximum	See Part 2.5	Composite	
Total Recoverable Lead	ug/L Weekly Average Limit per Part 3.9 calculation	See Part 2.5	Composite	See Part 3.9
Total Recoverable Lead	Lbs/day Weekly Ave Limit per Part 3.9 calculation	See Part 2.5	Composite	See Part 3.9
Oil and Grease	10 mg/L Daily Maximum	See Part 2.5	Grab	
Suspended Solids, Total	40 mg/L Daily Maximum	See Part 2.5	Grab	

3.2. Wastewater Testing/Discharge Management Plan

The permittee shall monitor the discharge for all of the compounds listed in the table 3.1 unless the Department approves a discharge management plan (see part 2.3) with a reduced list contaminants for monitoring.

3.3. Sample

A grab sample means a single sample taken at one moment of time or a combination of several smaller samples of equal volume taken in less than a two minute period.

3.4. Total BETX

Total BETX shall include the summation of the following compounds: benzene, ethylbenzene, toluene and total xylenes.

3.5. Polynuclear Aromatic Hydrocarbons Group

The polynuclear aromatic hydrocarbons (PAH) group regulated by this permit shall include a summation of the following individual compounds: benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene. Compliance with the monthly average PAH group limit can be demonstrated by using EPA method 610 or 8310 HPLC and reporting no detect of any of these PAH compounds, or by reporting the sum of the PAH group detected amounts equal to or less than 0.1 ug/L.

3.6. Benzo(a)pyrene

Compliance with the monthly average Benzo(a)pyrene limit can be demonstrated by using EPA method 610 or 8310 HPLC and reporting no detect, or by reporting a detected amount equal to or less than 0.1 ug/L.

3.7. Composite Lead Sample

A composite lead sample means a combination of individual samples of equal volume taken at approximately equal intervals (not exceeding one hour) over a three hour time period of normal operation of the facility.

3.8. Total Recoverable Lead

Compliance with lead limits listed in this permit may be demonstrated by testing for total recoverable lead or total lead.

3.9. Weekly Average Lead Limitations

The weekly average (chronic) lead concentration and mass limits are a function of the receiving water hardness as specified in s. NR 105.06, table 6, Wis. Adm. Code, the effluent average day design flow (Qe), the receiving water background lead concentration (Cs), and the receiving water design flow (Qs) as specified in s. NR 106.06(3), Wis. Adm. Code. To calculate the weekly average lead limits for this permit, the WQC variable in the s. NR 106.06(3), Wis. Adm. Code formula needs to be adjusted to reflect 1/3 of the remaining assimilative capacity to prevent significant lowering of water quality as specified in s. NR 207.04(2)(c)2, Wis. Adm. Code. The weekly average lead permit limits for discharges to surface waters are calculated by using the following formulas:

Weekly Average Lead Limit (ug/L) = $[(C_s + 1/3\{\underline{CTC} - C_s\}) * (Q_s + Q_e) - (Q_sC_s)] \div Q_e$

Where: $\underline{CTC}$ = *e* to the exponent (0.9662 * *ln*(receiving water hardness mg/L) - 1.1171), and
Q_s = ¼Stream $Q_{7,10}$ or alternate stream flow as specified in NR 106.06(3),

Weekly Average Lead Limit (lbs/day) = Weekly average mg/L concentration limit * Q_e million gallons per day* 8.34 lbs/gallon unit conversion factor.

3.10. Total Suspended Solids

Monitoring for Total Suspended Solids is only required at sites where there is a discharge of equipment cleaning wastewaters, or when groundwater is pumped from open pits or trenches.

4. ADDITIONAL REQUIREMENTS FOR DISCHARGES TO SURFACE WATERS FROM REMEDIATION OF VOLATILE ORGANIC CONTAMINANTS

Discharge of remedial action wastewater to surface water resources shall meet the requirements in this section including the effluent limitations and monitoring requirements specified in Table 4.1. Monitoring during a specified sampling period is required when remedial action wastewater is discharged to surface water resources anytime during that period. Samples representative of the wastewater effluent discharge shall be taken at each outfall following treatment and prior to discharge. Discharge to surface water resources includes discharge to storm sewers and drainage channels that convey wastewater to creeks, wetlands, streams, rivers and lakes.

4.1. Effluent Limits and Monitoring Requirements

Parameter	Effluent Limitations	Sample Frequency	Sample Type	Notes
Flow	gallons per day	Daily	Total daily	
Bromoform	120 ug/L Monthly Average	See Part 2.5	Grab	
Carbon Tetrachloride	150 ug/L Monthly Average	See Part 2.5	Grab	
Chloroform	120 ug/L Monthly Average	See Part 2.5	Grab	
Dichlorobromomethane	120 ug/L Monthly Average	See Part 2.5	Grab	
1,2-Dichloroethane	180 ug/L Monthly Average	See Part 2.5	Grab	
1,1-Dichloroethylene	50 ug/L Monthly Average	See Part 2.5	Grab	
Methyl Bromide	120 ug/L Monthly Average	See Part 2.5	Grab	
Methyl Chloride	120 ug/L Monthly Average	See Part 2.5	Grab	
1,1,2,2-Tetrachloroethane	50 ug/L Monthly Average	See Part 2.5	Grab	
Tetrachloroethylene	50 ug/L Monthly Average	See Part 2.5	Grab	
1,1,2-Trichloroethane	50 ug/L Monthly Average	See Part 2.5	Grab	
1,1,1-Trichloroethane	50 ug/L Monthly Average	See Part 2.5	Grab	
Trichloroethylene	50 ug/L Monthly Average	See Part 2.5	Grab	
Vinyl Chloride	10 ug/L Monthly Average	See Part 2.5	Grab	
Suspended Solids, Total	40 mg/L Daily Maximum	See Part 2.5	Grab	

4.2. Wastewater Testing/Discharge Management Plan

The permittee shall monitor the discharge for all of the compounds listed in the table 4.1 unless the Department approves a discharge management plan (see part 2.3) with a reduced list of contaminants for monitoring.

4.3. Grab Sample - A grab sample means a single sample taken at one moment of time.

4.4. Total Suspended Solids - Monitoring for Total Suspended Solids is only required when equipment cleaning wastewater is discharged or when groundwater is pumped from open pits or trenches.

5. ADDITIONAL REQUIREMENTS FOR WASTEWATER INFILTRATION DISCHARGES TO GROUNDWATER NOT IMPACTED BY REMEDIATION PROJECT CONTAMINANTS

Discharge of remedial action wastewater through an infiltration system to groundwater shall meet the requirements in this section including the effluent limitations and monitoring requirements specified below. Monitoring during a specified sampling period is required when remedial action wastewater is discharged to an infiltration system anytime during the sampling period. Unfiltered samples representative of the wastewater effluent shall be taken at each outfall following treatment and prior to discharge to the infiltration system. A discharge to groundwater in Wisconsin includes wastewater infiltration systems, such as irrigation, drain fields, ditches, seepage ponds, etc. that may impact water beneath the ground surface.

5.1. Effluent Limitation for Discharges to Groundwater

Best available wastewater treatment technology (see part 2.2) is required to minimize the level of substances in the groundwater and to prevent exceedance of the groundwater preventive action limits (PAL) contained in tables 1 through 3 of Chapter NR 140, Wisconsin Administrative Code, to the extent that it is technically and economically feasible. Therefore, this permit establishes monthly average effluent limitations, that are equivalent to NR 140, Wis. Adm. Code, Preventive Action Limits. As specified in part 5.3, there may be cases when the permittee can demonstrate, and the Department approves, that alternate effluent limitations be established up to a level equivalent to the ch. NR 140 Enforcement Standard.

5.2. Where to Sample

Compliance with the limitations established by this permit shall be demonstrated by sampling wastewater treatment system effluent prior to infiltration. However, in cases where alternate effluent limitations are established consistent with part 5.3, the Department may also approve, in a discharge management plan, monitoring of groundwater wells downgradient of the infiltration system to demonstrate compliance with NR 140 groundwater quality standards.

5.3. Wastewater Testing/Discharge Management Plan

The permittee shall monitor the discharge for all of the compounds listed in part 5.5 and 5.6, unless the Department approves a discharge management plan (see part 2.3) with a reduced list of contaminants for monitoring. The Department may also approve, in the management plan, alternate monthly average effluent limits for discharges to groundwater. Alternate effluent limits shall be justified by demonstrating: (1) that the limitation listed in part 5.5 or 5.6 is not technically or economically feasible to meet, or (2) that other factors, such as dispersion or degradation, result in contaminant levels that do not attain or exceed the preventive action limit or enforcement standard beyond the groundwater design management zone. Alternate monthly average effluent limits approved by the Department shall not exceed the NR 140 groundwater enforcement standard, and the approved alternate limits supersede the limits listed in parts 5.5 and 5.6 of this permit.

5.4. Monitoring and Analysis Methods

The total daily discharge volume shall be measured as specified in NR 218.05, Wis. Adm. Code and shall have a daily sample frequency. See part 2.5 of this permit for the required sampling frequency and part 2.4 of this permit for the required analysis methods.

5.5. Effluent Discharge Limitations for Petroleum Contaminants

The monthly average effluent limitations for frequently detected petroleum contaminants are as follows:

Acetone	200 ug/L	Methyl isobutyl ketone	50 ug/L
Benzene	0.5 ug/L	Methyl tert-butyl ether	12 ug/L
Benzo(a)pyrene	0.02 ug/L	Naphthalene	10 ug/L
Benzo(b)fluoranthene	0.02 ug/L	Pyrene	50 ug/L
Chrysene	0.02 ug/L	Pyridine	2 ug/L
Ethylbenzene	140 ug/L	Styrene	10 ug/L
Ethylene Dibromide	0.005 ug/L	Tetrahydrofuran	10 ug/L
Fluoranthene	80 ug/L	Toluene	160 ug/L
Fluorene	80 ug/L	Trimethylbenzenes (combined 1,2,4 & 1,3,5)	96 ug/L
Lead	1.5 ug/L		
Methyl ethyl ketone	90 ug/L	Total BETX	750 ug/L

5.6. Effluent Limitations for Chlorinated Volatile Organic Contaminants

The monthly average effluent limitations for frequently detected chlorinated volatile organic compounds are as follows:

1,1-Dichloroethane	85 ug/L	Chloromethane	0.3 ug/L
1,2-Dichloroethane	0.5 ug/L	Methylene Chloride	0.5 ug/L
1,1-Dichloroethylene	0.7 ug/L	Pentachlorophenol	0.1 ug/L
1,2-Dichloroethylene (cis)	7 ug/L	1,1,1,2-Tetrachloroethane	7 ug/L
1,2-Dichloroethylene (trans)	20 ug/L	1,1,2,2-Tetrachloroethane	0.02ug/L
1,2-Dichlorobenzene	60 ug/L	Tetrachloroethylene	0.5 ug/L
1,3-Dichlorobenzene	125 ug/L	1,1,1-Trichloroethane	40 ug/L
1,4-Dichlorobenzene	15 ug/L	1,1,2-Trichloroethane	0.5 ug/L
Carbon tetrachloride	0.5 ug/L	Trichloroethylene	0.5 ug/L
Chloroethane	80 ug/L	1,2,4-Trichlorobenzene	14 ug/L
Chloroform	0.6 ug/L	Vinyl Chloride	0.02 ug/L

6. ADDITIONAL REQUIREMENTS FOR DISCHARGES DESIGNED TO ENHANCE THE REMEDIATION OF IN-SITU CONTAMINANTS

Discharge of remedial action additives and wastewater through an infiltration system designed to enhance the remediation of in-situ contaminants in soil or groundwater shall meet the requirements in this section, including the effluent limitations and monitoring requirements specified below. Monitoring during a specified sampling period is required when remedial action wastewater is discharged to an infiltration system anytime during the sampling period. Samples representative of the discharge shall be collected at each outfall following treatment and prior to discharge to the infiltration system.

6.1. Wastewater Treatment

Best Available Wastewater Treatment (see part 2.2) is required to minimize the level of contaminants discharged to the groundwater to the extent that it is technically and economically feasible and necessary to prevent exceedance of: (a) applicable groundwater standards contained in ch. NR 140, Wis. Adm. Code, tables 1 through 3, or (b) any temporary exemption granted under s. NR 140.28 (5), Wis. Adm. Code.

6.2. Wastewater Testing/Discharge Management Plan

The permittee shall submit a discharge management plan (see part 2.3) that specifies the contaminants proposed to be monitored under this permit. Any discharge under this permit shall be consistent with a discharge management plan that has been approved by the Department. The discharge management plan shall specify monitoring of the water to be infiltrated or injected, and may also include monitoring of groundwater in wells that confirms that the groundwater protection requirements of ch. NR 140, Wis. Adm. Code (including any s. NR 140.28(5) temporary exemption requirements) are being met. At a minimum, the monitoring parameters shall include the contaminants, the contaminant breakdown products, field pH and oxidation/reduction potential.

6.3. Limitations for Projects with No NR 140.28(5) Temporary Exemption

When a s. NR 140.28(5), temporary exemption has not been granted for an in-situ remediation project, the monthly average discharge limits for water to be infiltrated or injected are the equivalent to those listed in parts 5.5 and 5.6 of this permit. Also, when a s. NR 140.28(5), temporary exemption has not been issued, the concentration of nitrogen compounds in the injected or infiltrated water shall not exceed the following concentrations on a monthly average basis: 2 mg/L nitrate+nitrite-nitrogen, 3 mg/L organic-nitrogen, and 3 mg/L ammonia-nitrogen.

6.4. Requirements for Projects Granted a NR 140.28(5) Temporary Exemption

When a remedial action project has been granted a s. NR 140.28(5) exemption, the in-situ remediation process shall be conducted in compliance with the terms and conditions of the Department of Natural Resources approval under s. 292.31, Wisconsin Statutes, and the temporary exemption granted under s. NR 140.28(5).

6.5. Flow Monitoring and Contaminant Sampling Frequency

Total daily discharge flow shall be recorded daily. The contaminant sampling frequency shall be quarterly, except that the Department may approve, in a discharge management plan, a semi-annual monitoring frequency if the permittee demonstrates that the in-situ treatment process is effectively reducing contaminant levels at the site and the contaminated area is not significantly expanded as a result of the in-situ remedial activities.

6.6. Degradation By-Products

All by-products formed as a result of the remediation process shall be further degraded or removed if those by-products are found at concentrations which constitute a risk to either human health or the environment.

7. ADDITIONAL REQUIREMENTS FOR DISCHARGES OF AGRI-CHEMICAL REMEDIATION WATER TO FARM FIELDS

Land application of pesticide and fertilizer remedial action wastewater under this permit on agricultural fields shall meet the requirements of this permit section including the effluent limitations and monitoring requirements specified below. Monitoring during a specified sampling period is required when remedial action wastewater is discharged to a land application site during the sampling period. Samples representative of the discharge to the land application system shall be taken following treatment and prior to land application.

7.1. Wastewater Treatment

Best Available Wastewater Treatment (see part 2.2) is required to minimize the level of contaminants in the groundwater and to prevent exceedance of groundwater standards contained in ch. NR 140, Wis. Adm. Code, to the extent that it is technically and economically feasible.

7.2. Land Application Restrictions

Pesticide and fertilizer agri-chemical remediation wastewater applied to farm fields shall be for the beneficial use of the crop and any pesticide contribution shall be in accordance with the appropriate pesticide product label restrictions.

7.3. Ponding and Runoff Prohibited

The sprayed wastewater shall seep in as it is sprayed; wastewater ponding and runoff are prohibited. Should poor conditions, such as rain moistened soil create a tendency for ponding, the rate of spray shall be reduced until there is no ponding or runoff. No spraying is allowed on frozen soil. The wastewater must be kept out of all surface waterways.

7.4. Chloride Loading

The total pounds of chloride applied shall be limited to 340 pounds per acre per consecutive 2 year period.

7.5. Nitrogen Loading

The total pounds of nitrogen (Nitrate+Ammonia+Organic - Nitrogen) applied shall be limited to nutrient needs of the cover crop minus any supplemental nitrogen fertilizer or manure applied.

7.6. Discharge Monitoring

The total daily discharge volume shall be recorded daily. The permittee shall monitor the discharge for all of the pesticides, nitrogen forms and phosphorus detected in the wastewater unless the Department approves a discharge management plan (see part 2.3) with a reduced list of contaminants for monitoring.

7.7. Sample Frequency

The contaminant monitoring frequency shall be weekly, except the Department may approve a sampling frequency reduction to monthly in the approved Discharge Management Plan when the wastewater has relatively consistent contaminant levels.

7.8. No Detrimental Impact

The discharge of substances in the remedial water shall not permanently impair future use of the affected soil, groundwater or aquifer.

8. ADDITIONAL STANDARD REQUIREMENTS

8.1. NR 205, Wisconsin Administrative Code: The permittee shall comply with the conditions in ss. NR 205.07(1) and NR 205.07(3), Wis. Adm. Code, which are included by reference in this permit, except for s. NR 205.07(1)(n), which does not apply to facilities covered under general permits. The paragraphs below that contain a reference to parts of s. NR 205.07 are included for the permittee's convenience.

8.2. Spill Reporting for Hazardous Substances: The permittee shall immediately notify the Department of an accidental release or spill of any hazardous substance to the environment as specified in ch. NR 706 and s. NR 205.07(3)(b), Wis. Adm. Code. The Department shall be notified via the 24-hour toll free spills hotline (1-800-943-0003).

8.3. Duty to Halt or Reduce Activity: Upon failure or impairment of treatment facility operation, the permittee shall as required in s. NR 205.07(3)(e) and to the extent necessary to maintain compliance with its permit, curtail production or wastewater discharges or both until the treatment facility operations are restored or an alternative method of treatment is provided.

8.4. Permit Noncompliance Reporting: As specified in s. NR 205.07(1)(s), Department notification is required within 24 hours of becoming aware of permit noncompliance.

8.5. Bypassing: As specified in s. NR 205.07(1)(u) & (v) bypass or overflow of wastewater at the treatment works or collection system is prohibited unless there were no feasible alternatives to the bypass, the bypass is necessary to prevent severe injury or property damage, and the permittee notified the Department as required in s NR 205.07(1)(u)3.

8.6. Planned Changes: The permittee shall report to the Department any facility expansion, production increase or process modifications which will result in new, different or increased discharges of pollutants as set forth in s. NR 205.07(3)(c).

8.7. Inspection and Entry: The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to enter the permittee's premises, have access to records, and inspect and monitor the discharge as described in s. NR 205.07(1)(d).

8.8. Authorized Signature: Reports, records, and monitoring results required by this permit shall be signed by the permittee's authorized representative or, in his or her absence, as specified in s. NR 205.07(1)(g).

8.9. Water Quality Sampling and Testing Procedures: Sampling and laboratory analysis procedures shall be performed as specified in s. NR 205.07(1)(p) and as set forth below. Sampling and analysis of effluent samples shall be performed as specified in chs. NR 218 and NR 219, Wis. Adm. Code, respectively. The sampling and analysis shall be performed by a laboratory certified or registered in accordance with the requirements of ch. NR 149. Total daily discharge volume shall be measured as specified in s. NR 218.05, Wis. Adm. Code. EPA method 200.8 or 239.2 shall be used on unmodified effluent samples for the determination of total recoverable lead. EPA method 1664A (or Standard Method 5520 B) shall be used for determination of oil and grease. EPA Method 160.2 (or Standard Method 2540 D) shall be used for determination of total suspended solids.

8.10. Retention and Submittal of Reports, Records, and Monitoring Results: The permittee shall retain records of all monitoring required by this permit and reported monitoring results as set forth in s. NR 205.07(1)(f) and (r) and as follows: reports, records, and monitoring results required by this permit shall be retained by the permittee for the duration of this permit or three years after this information is generated, whichever is longer.

8.11. Recording of Results: For each effluent measurement or sample taken, the permittee shall record the following information as required in s. NR 205.07(1)(e):

- The date, exact place, method and time of sampling or measurements,
- The individual who performed the sampling or measurements,
- The date of the analysis and the individual who performed the analysis,
- The analytical techniques or methods used, and the results of the analysis.

8.12. More Frequent Monitoring: As specified in NR 205.07(1)(r), if the permittee monitors any parameter more frequently than required by the permit, using test procedures specified in ch. NR 219, Wis. Adm. Code or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report.

8.13. Conventions for the Reporting and Use of Low Level Results: The permittee shall use the following conventions when reporting effluent monitoring results: (a) non-detected pollutant results shall be reported as < (less than) the value of the analytical method's limit of detection; (b) pollutant concentrations equal to or greater than the limit of detection, but less than the limit of quantitation, shall be reported and the limit of quantitation shall be specified; and (c) a zero value may be substituted for any non-detected pollutant result for the purposes of calculating an average or a mass discharge.

8.14. Continuation of an Expired General Permit: As provided in s. NR 205.08(9), the terms and conditions of this general permit shall continue to apply until this general permit is reissued or revoked or until an individual permit is issued for the discharge to which the general permit applied. The status of a general permit and forms for updating facility information can be accessed on the Department website by searching for WPDES Wastewater General Permits.

8.15. Enforcement: Any violation of this permit is enforceable under ss. 283.89 and 283.91, Wisconsin Statures.

8.16. Severability: The provisions of this permit are severable, and if any provisions of this permit or the application of any provision of this permit to any circumstance is held invalid the remainder of this permit shall not be affected thereby.

8.17. Work near Surface Waters and Wetlands: Any work performed in wetland areas or within areas subject to local floodplain and shoreland regulations must conform to all applicable county or local ordinances. All applicable state permits and/or contracts required by chs. 30, 31 and 87, Wis. Stats. (or Wisconsin Administrative Code adopted under these laws), and applicable federal permits must be obtained as necessary.

DISCHARGE MONITORING REPORT FORM - Contaminated Groundwater

WPDES PERMIT NO. WI-0046566-06 **YEAR:** _____

PERMITTEE NAME: Moore Oil
FIN: 14591
ADDRESS: 4033 West Custer Avenue, Milwaukee, WI 53209

Outfall Number	001	001	001	001	001	001	001	001	001	001
Parameter	Sample Date	Flow	Total BTEX	Methyl Tert Butyl Ether	Total PAHs	Benzo(a)pyrene	Naphthalene	Total Recoverable Lead	Oil and Grease	Suspended Solids, Total
Parameter Units	-	Gal/Day	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L
Monthly Average Limit	-	-	-	-	0.1	0.1	70	-	-	-
Daily Maximum Limit	-	-	750	-	-	-	-	50	10	40

Outfall Number	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001
Parameter	Sample Date	Bromoform	Carbon Tetrachloride	Chloroform	Dichlorobromomethane	1,2-Dichloroethane	1,1-Dichloroethylene	Methyl Bromide	Methyl Chloride	1,1,2,2-Tetrachloroethane	Tetrachloroethylene	1,1,2-Trichloroethane	1,1,1-Trichloroethane	Trichloroethylene	Vinyl Chloride
Parameter Units	-	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
Monthly Average Limit	-	120	150	120	120	180	50	120	120	50	50	50	50	50	10

DISCHARGE MONITORING REPORT FORM - Contaminated Groundwater

WPDES PERMIT NO. WI-0046566-06 **YEAR:** _____

PERMITTEE NAME: Moore Oil
FIN: 14591
ADDRESS: 4033 West Custer Avenue, Milwaukee, WI 53209

COMMENTS:_____

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Unless noted under parameter name, each daily value entered must be the highest value of all sample types analyzed for that day. **Authorized per WISCONSIN STATUTE 283.55**	**RETURN REPORT NO LATER THAN**: The 15th of each month
I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS DOCUMENT AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINES AND IMPRISONMENT, (40 CFR 122.5). I ALSO CERTIFY THAT THE VALUES BEING SUBMITTED ARE THE ACTUAL VALUES FOUND IN THE SAMPLES; NO VALUES HAVE BEEN MODIFIED OR CHANGED IN ANY MANNER. WHEREVER I BELIEVE A VALUE BEING REPORTED IS INACCURATE, I HAVE ADDED AN EXPLANATION INDICATING THE REASONS WHY THE VALUE IS INACCURATE.	**MAIL TO:** **Department of Natural Resources** **ATTN: James Brodzeller** **3911 Fish Hatchery Rd.** **Fitchburg, WI 53711** Signature of Person Completing Form — Date Signature of Principal Exec. Officer or Authorized Agent Title — Date

DISCHARGE MONITORING REPORT FORM - Contaminated Groundwater

WPDES PERMIT NO. WI-0046566-06 **YEAR:** _____

PERMITTEE NAME: Moore Oil
FIN: 14591
ADDRESS: 4033 West Custer Avenue, Milwaukee, WI 53209

Outfall Number	002	002	002	002	002
Parameter	Sample Date	Flow	Suspended Solids, Total	Oil and Grease	pH
Parameter Units	Day	Gal/Day	mg/L	mg/L	s.u.
Daily Maximum Limit	-	-	40	10	9.0
Daily Minimum Limit	-	-	-	-	6.0

COMMENTS: _____

Unless noted under parameter name, each daily value entered must be the highest value of all sample types analyzed for that day.
Authorized per WISCONSIN STATUTE 283.55

RETURN REPORT NO LATER THAN: The 15th of each month

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS DOCUMENT AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINES AND IMPRISONMENT, (40 CFR 122.5). I ALSO CERTIFY THAT THE VALUES BEING SUBMITTED ARE THE ACTUAL VALUES FOUND IN THE SAMPLES; NO VALUES HAVE BEEN MODIFIED OR CHANGED IN ANY MANNER. WHEREVER I BELIEVE A VALUE BEING REPORTED IS INACCURATE, I HAVE ADDED AN EXPLANATION INDICATING THE REASONS WHY THE VALUE IS INACCURATE.

MAIL TO: **Department of Natural Resources**
ATTN: James Brodzeller
3911 Fish Hatchery Rd.
Fitchburg, WI 53711

Signature of Person Completing Form — Date

Signature of Principal Exec. Officer or Authorized Agent Title — Date