National Pollutant Discharge Elimination System
GENERAL PERMIT FACT SHEET for
Ground Water Petroleum Remediation Systems
NPDES Permit No. ING080000
Final: October 19, 2020

Indiana Department of Environmental Management
Office of Water Quality
100 North Senate Avenue, IGCN Room 1255
Indianapolis, Indiana 46204
www.idem.IN.gov

Existing Permit Information:	Permit Number: ING080000; Existing facilities permitted under ING080000 will retain their existing general permit tracking numbers, and new permitted facilities will have tracking numbers using same numbering protocol (ING080xxx). Expiration Date: All facilities permitted under ING080000 will have the same expiration date, which will be five (5) years after the date that the permit becomes effective.
Source Location:	State-wide
Receiving Water(s):	All waters of the state of Indiana, except for Outstanding State Resource Waters and Outstanding National Resource Waters
Proposed Action:	New administrative NPDES general permit to replace existing NPDES general permit ING080000, which was issued in 2015
Source Category:	NPDES Minor – Industrial
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The Federal Water Pollution Control Act (also referred to as The Clean Water Act (CWA) (33 U.S.C. 1251 et seq.), which was enacted in 1972, provides that the discharge of pollutants to the waters of the United States from any point source is unlawful, unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The primary condition determining eligibility is ensuring that the discharge consists of only wastewater from Ground Water Petroleum Remediation systems. Dischargers who meet the eligibility requirements may apply for coverage by this NPDES general permit, instead of seeking coverage under an individual NPDES permit.

The development of a Fact Sheet for NPDES permits is required by Title 40 of the Code of Federal Regulations, Section 124.8 and 124.56. This document fulfills the requirements established in those regulations by providing the information necessary to inform the public of actions proposed by the Indiana Department of Environmental Management (IDEM) as outlined in 40 CFR 122.28 and 327 IAC 5-3-8.

A. Description of Category:

The purpose of this general permit is to regulate the point source discharge of wastewater from Ground Water Petroleum Remediation systems into surface waters of the state so that the public health, existing uses, and aquatic biota are protected.

"Ground water petroleum remediation wastewater" is defined as the discharge from any conveyance used for collecting and conveying wastewater which is directly related to ground water petroleum remediation systems or activities. This includes groundwater which has been contaminated by gasoline, diesel fuel, kerosene, and other petroleum products that are typically associated with gas stations and truck stops.

NPDES general permits are developed and issued to cover multiple facilities engaged in the same process category instead of an individual facility within the State of Indiana. IDEM first developed a general NPDES permit-by-rule (327 IAC 15-10) for discharges of ground water petroleum wastewater in 1994, which was repealed in 2015 and replaced with an administrative general NPDES permit, ING080000 IDEM is now administering general NPDES permits via a "master" general permit which will be renewed and reevaluated on a five-year interval. Persons who seek coverage under the master general permit will continue to be assigned permit tracking numbers beginning with "ING08" but coverage under the general permit will be limited to the permit term established in the general permit.

As such, all of the permitted discharges from facilities like this generally require the same effluent limitations and monitoring requirements. As of July 2020, there are approximately 27 facilities which are currently regulated under ING080000. Since the permit requirements for all of these discharges are similar and because of the number of such dischargers, it is the opinion of IDEM that this category of sources is controlled more appropriately under a NPDES general permit rather than under individual permits. These discharges are similar in several ways:

1) They are comprised solely of ground water petroleum remediation wastewater; and
2) The ground water at the facilities addressed in this general permit has contained petroleum or petroleum-derived liquids.

B. Geographic Area Covered

This general permit is intended to cover any discharge of ground water petroleum remediation wastewater within the boundaries of the state of Indiana, except as denoted herein, provided that they meet all applicability requirements.

C. Receiving Waters

This general permit will authorize discharges to all waters of the State of Indiana, except for Outstanding State Resource Waters and Outstanding National Resource Waters. Dischargers to these receiving waters are required to obtain an individual NPDES permit.

D. Eligibility

Discharges covered under this general permit will be from primarily industrial facilities with discharges solely comprised of wastewater from ground water petroleum remediation systems. This general permit contains eligibility criteria including certain specific exclusions from coverage under the general permit which are denoted in Section 1.3 of the permit. In such instances, operators will be required to apply for an individual NPDES permit.

The following discharges of wastewater from ground water petroleum remediation systems are **not** authorized by this permit:

1) remediation sites that contain contaminants other than gasoline, diesel fuel, kerosene, or similar constituents.
2) direct discharges into waters that are designated as an Outstanding National Resource Water (ONRW) defined at IC 13-11-2-149.5 or an Outstanding State Resource Water (OSRW) defined at IC 13-11-2-149.6 and listed at 327 IAC 2-1.3-3(d);
3) discharges to a receiving water when the discharge results in an increase in the ambient concentration of a pollutant which contributes to the impairment of the receiving water for that pollutant as identified on the current 303(d) list of impaired waters;
4) discharges containing water treatment additives (WTAs) which have not received prior written approval from IDEM for the specific additive, use, and dosage at the particular facility for which the Notice of Intent (NOI) is submitted.
5) discharges to combined or sanitary sewer systems;
6) discharges that are commingled with hazardous wastes or hazardous materials;
7) bypasses or upsets of any kind from a treatment works or collection system;
8) discharges that contain pollutants classified as bioaccumulative chemicals of concern (BCCs); and
9) discharges for which the Commissioner requests an individual permit application.

E. Application for Coverage:

This general permit proposes to provide coverage for any facility with discharges composed entirely of ground water petroleum remediation wastewater which meet the eligibility criteria listed in Section 1.3 of the permit and whose operators agree to be regulated under the terms of the general permit.

Each facility seeking coverage under this general permit must submit a Notice of Intent (NOI) to comply with the general permit requirements. Federal regulations found in 40 CFR 122.21(a) exclude persons covered by general permits from requirements to apply for an individual permit. NOI requirements are intended to establish a mechanism that can be used to establish a clear accounting of the number of permittees covered by the general permit, the identities, locations, mailing addresses, and nature of discharge.

F. When to Apply

State NPDES rules require individual permit applications to be filed at least one hundred eighty (180) days prior to the commencement of activity. The current NPDES general permit ING080000 requires an NOI to be filed at least thirty (30) days prior to the commencement of the proposed activity. For renewals of coverage, the 2015 general NPDES permit requires an NOI to be filed at least ninety (90) days prior to the expiration date of the general permit. Under the terms and conditions of this general permit, any existing permittee will also need to file an NOI within ninety (90) days following the date that the Commissioner makes the 2020 NOI form available to the permittee.

If a facility with existing general permit coverage determines that it cannot comply with the renewed general permit, then an individual NPDES application must be submitted within 120 days of the effective date of the general permit. Their existing general permit coverage will continue until the effective date of the individual NPDES permit.

If a facility with an existing individual NPDES permit opts to convert to being regulated under the general permit, and it meets the eligibility requirements in Section 1.3, the permittee may request new coverage under this general permit at any time after the effective date of this permit by submitting an NOI.

G. Antidegradation Evaluation

327 IAC 2-1.3 outlines the state's Antidegradation Standards and Implementation Procedures. The Tier 1 antidegradation standard found in 327 IAC 2-1.3-3(a) applies to all surface waters of the state regardless of their existing water quality. Based on this standard, for all surface waters of the state, existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. IDEM implements the Tier 1 antidegradation standard by requiring NPDES permits to contain effluent limits and best management practices for regulated pollutants that ensure that the narrative and numeric water quality criteria applicable to the designated use are achieved in the water and that any designated use of the downstream water is maintained and protected. Effluent limits for the following regulated pollutants are being included in this NPDES permit to satisfy the Tier 1 antidegradation standard: Total BTEX.

The Tier 2 antidegradation standard found in 327 IAC 2-1.3-3(b) applies to surface waters of the state where the existing quality for a parameter is better than the water quality criterion for that parameter established in 327 IAC 2-1-6 and 327 IAC 2-1.5. These surface waters are considered high quality for the parameter and this high quality shall be maintained and protected unless the Commissioner finds that allowing a significant lowering of water quality is necessary and accommodates important social or economic development in the area in which the waters are located. IDEM implements the Tier 2 antidegradation standard for regulated pollutants with numeric water quality criteria adopted in or developed pursuant to 327 IAC 2-1 and 327 IAC 2-1.5 and utilizes the antidegradation implementation procedures in 327 IAC 2-1.3-5 and 2-1.3-6.

The effluent limits for benzene and naphthalene are unchanged from the 2015 general NPDES permit. Since there is no new or increased loading of these regulated pollutants proposed in this 2020 renewal, the Antidegradation Implementation Procedures in 327 IAC 2-1.3-5 and 2-1.3-6 do not apply to the permitted discharges.

However for facilities seeking new general permit coverage in the future, these limits are subject to Tier 2 antidegradation requirements. The effluent limitations for benzene and naphthalene contained in the general permit are also based on best professional judgment of the best available treatment in accordance with 327 IAC 5-5-2 and are more stringent than the water quality-based effluent limits for these same parameters.

The following table shows a comparison of the water quality-based effluent limits (WQBELs) for benzene and naphthalene, calculated without the benefit of a mixing zone to demonstrate the most protective limit, to the technology based limits using best professional judgment (BPJ) and best available technology (BAT):

Daily Maximum Effluent Limitations (µg/l)

	WQBEL	TBEL
Benzene	161.0	5.0
Naphthalene	18.0	10.0

The most stringent of the limits for each pollutant, based on either the water quality criteria or the treatment technology, is selected to ensure that both proper treatment of the wastewater is occurring and that the discharge is not harmful to aquatic life or human health. In these cases, the TBELs are more stringent than the limits based on water quality criteria.

It has been demonstrated historically that petroleum products in ground water can be effectively treated with the use of a combination of the following treatment processes including initial filtration, oil water separators, air stripping, and activated carbon filtration. These are mature treatment technologies which have been used as demonstrations of the most cost-effective treatment methods for these compounds. The effluent limitations in this permit are based upon the BPJ/BAT technology for petroleum-contaminated ground water. Additionally, IDEM concludes that the remediation activities authorized under this general permit are necessary and important for social and economic development in Indiana.

The following antidegradation determination is based on 327 IAC 2-1.3. The effluent limitations for Total BTEX contained in the general permit for discharges of wastewater associated with ground water petroleum remediation systems are based on best professional judgment of the best available treatment in accordance with 327 IAC 5-5-2 and the Indiana Tier 1 antidegradation standard. The effluent limits for benzene and naphthalene are also based on best professional judgment of the best available treatment in accordance with 327 IAC 5-5-2. With the inclusion of these limits along with the additional socio-economic benefit of treating contaminated ground water, IDEM concludes that the Tier 2 antidegradation standard has also been met.

H. Permit Conditions

1) Effluent Limitations & Monitoring Requirements

Under State and Federal law and regulations 40 CFR 122.44 and 327 IAC 5, a discharge permit must establish effluent limitations equivalent to best available technology economically achievable (BAT). For some industry categories, such effluent limitations have already been established by the EPA. This is not the case with discharges of ground water petroleum remediation wastewater; thus, IDEM has used Best Professional Judgment (BPJ) to choose effluent limitations that meet technology-based levels equivalent to BAT.

a) **Flow** is a standard parameter to be monitored for all NPDES permits.

Reporting both the monthly average and daily maximum flows is required. Flow measurement may be estimated. This measurement is required for all NPDES permits and is included in this permit in accordance with 327 IAC 5-2-13(a)(2).

b) **pH** is included in the general permit to ensure that the discharge will not violate Indiana water quality standards. The proposed limit of 6.0 to 9.0 standard units (s.u.) is in accordance with the Indiana Water Quality Standards (327 IAC 2-1-6 and 327 IAC 2-1.5-8). This limit is unchanged from the 2015 general permit.

c) **Benzene:** Benzene is being used as an indicator of the volatile organic compounds present in the gasoline. The benzene limitation of 5 micrograms per liter (5.0 µg/l) has been established based upon Best Available Technology (BAT) in accordance with 327 IAC 5-5-2. This limit is unchanged from the 2015 general permit.

d) **Total BTEX**: BTEX is the sum of the four alkyl benzenes: benzene, toluene, ethylbenzene, and total xylenes (i.e., the sum of the ortho, para, and meta isomers of xylene). Under aerobic conditions, when mixtures of BTEX are present, toluene usually degrades first, followed by xylene, and lastly benzene and ethylbenzene, if they are degraded at all. BTEX compounds are present at relatively high concentrations in light distillates (e.g., approximately 2% ethylbenzene, 5% benzene, and 11-12% toluene and xylenes). However, the composition of petroleum products that contain BTEX is highly variable, and for some petroleum products, any one of the four BTEX compounds could be the dominant chemical of concern.

Therefore, effluent limitations and monitoring requirements for BTEX are proposed to be included in this permit renewal and the limits are applicable to any type of remediation activity at the site. The Total BTEX limitation of 100 micrograms per liter (100 µg/l) is established based upon Best Professional Judgment of the Best Available Technology (BPJ/BAT) in accordance with 327 IAC 5-5-2.

e) **Naphthalene**: Effluent limitations and monitoring requirements for naphthalene are included to the general permit in the event that diesel fuel or kerosene is present in the ground water. The Naphthalene limitation of ten micrograms per liter (10 µg/l) is established based upon Best Professional Judgment of the Best Available Technology (BPJ/BAT) in accordance with 327 IAC 5-5-2. The monitoring requirements for this pollutant may be waived or reduced (via an official IDEM approval letter) if the wastewater characterization data supports the waiver or reduction. This limit is unchanged from the 2015 general permit.

f) **PAHs:** Monitoring requirements for polynuclear aromatic hydrocarbons (PAHs) are included in the general permit in the event that the wastewater characterization data shows the presence of PAHs, which can be due to the presence of diesel fuel, kerosene or other petroleum products typically associated with gas stations and truck stops. The requirement for sampling for these pollutants shall be determined based upon information provided in the NOI or IDEM records. The monitoring requirements for PAHs may be waived or reduced, via an official IDEM approval letter, if the wastewater characterization and/or the effluent data supports the waiver or reduction. This limit is unchanged from the 2015 general permit.

2) Narrative Water Quality Based Limits

The narrative water quality standards contained in 327 IAC 2-1-6(a) and 327 IAC 2-1.5-8(b) have been included in this general permit to ensure that the narrative water quality criteria are met. The 2015 permit inadvertently omitted the requirement that the discharge shall not cause the receiving water(s) outside the mixing zone, to contain substances in concentrations which on the basis of available scientific data are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants. This provision has been included in the 2020 general permit renewal.

3) Monitoring and Reporting Requirements

Monitoring requirements for flow and pH are set at 1 x daily. The total monthly flow volume must be calculated once monthly. The monitoring frequency for all other effluent parameters is set at once monthly.

The permittee is required to complete and submit federal Discharge Monitoring Reports (DMRs) and state Monthly Monitoring Reports (MMRs) to IDEM containing the results obtained during the previous monitoring period by the 28th day of the month following the monitoring period.

All persons covered by this general permit are required to enroll in the NetDMR program for the electronic submittal of the federal DMRs and the state MMR forms in lieu of submitting them via U.S. Mail. For more information about NetDMR, see https://www.IN.gov/IDEM/cleanwater/2422.htm.

I. Reporting Spills and Noncompliance

All persons covered by this general permit must monitor for, identify, and report adverse incidents. If a person covered by this general permit observes or is otherwise made aware of an adverse incident that may have resulted from a discharge, the person must notify IDEM by telephone at **(888) 233-7745:**

- immediately for incidents which pose a significant danger to human health or the environment,
- as soon as possible but within two (2) hours of discovery for any adverse incidents resulting in death or acute injury or illness to animals or humans (see 327 IAC 2-6.1), and
- within 24 hours of the person becoming aware of the adverse incident for any other adverse incidents not listed above.

The permittee shall also submit a written report to IDEM within five (5) days of the permittee becoming aware of the incident and may be submitted by U.S. Mail or by email in which case the reports must be sent to: wwreports@idem.IN.gov.

Spills from the permitted facility meeting the definition of a spill under 327 IAC 2-6.1-4(15), the applicability requirements of 327 IAC 2-6.1-1, and the Reportable Spills requirements of 327 IAC 2-6.1-5 (other than those meeting an exclusion under 327 IAC 2-6.1-3 or the criteria outlined below) are subject to the Reporting Responsibilities of 327 IAC 2-6.1-7.

It should be noted that the reporting requirements of 327 IAC 2-6.1 do not apply to those discharges or exceedances that are under the jurisdiction of an applicable permit when the substance in question is covered by the permit and death or acute injury or illness to animals or humans does not occur. In order for a discharge or exceedance to be under the jurisdiction of this NPDES permit, the substance in question (a) must have been discharged in the normal course of operation from an outfall listed in this permit, and (b) must have been discharged from an outfall for which the permittee has authorization to discharge that substance.

J. Fees

In accordance with IC 13-18-20-12, any application for a new permit, renewal of a permit, modification of a permit, or variance from a permit requirement must be accompanied by an application fee, which is currently $50.00. These fees are also applicable to NOIs for general permits. Once approved for coverage under a general permit, the permittee is also subject to annual operating fees. These annual fees are set by statute (IC 13-18-20). For more information, please see https://www.IN.gov/IDEM/cleanwater/2367.htm. Both the application fees and annual fees may be remitted by check via U.S. mail or may be remitted via IDEM's online payment portal at https://www.in.gov/idem/6973.htm, which can accept e-checks and some credit cards.

K. Reopening Clauses

This general permit may be modified, or alternately, revoked and reissued, after public notice and opportunity for hearing

1. to comply with any applicable effluent limitation or standard issued or approved under 301(b)(2)(C),(D) and (E), 304 (b)(2), and 307(a)(2) of the Clean Water Act, if the effluent limitation or standard so issued or approved:

   a. contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

   b. controls any pollutant not limited in the permit.

2. to incorporate any of the reopening clause provisions cited at 327 IAC 5-2-16.

L. Permit Term

This general permit is proposed to be in effect for a five (5) year term.

M. Forms, References, and Guidance Documents

The IDEM website will contain information about each of the NPDES general permits, including the issued permit(s), Notice of Intent forms, Notice of Termination forms, and helpful reference documents to assist the regulated community and the general public. This web page is still in development as of the date of this fact sheet.

N. Proposed Changes to the General Permit

The following is a summary of the substantive changes which IDEM is proposing in this general permit compared to the 2015 final general permit:

1) The eligibility requirements in Section 1.3 were expanded to further restrict the types of discharge activities which can be authorized under this general permit.

2) A new parameter and effluent limitation for BTEX has been added to Section 2.1 of the permit. The footnotes below the tables in Section 2.1 were updated which explain some of the various monitoring requirements. Footnote [1], which pertains to the flow monitoring requirements, was enhanced to include the permittee's obligation to provide info and obtain IDEM approval for flow measurement practices involving estimates as opposed to use of a flow meter.

3) A new paragraph was added to Section 2.2 of the permit to specify that the discharge shall not cause toxicity outside of the mixing zone of the receiving water.

4) Section 3.0 of the permit has been updated to reflect the requirement for all NPDES permittees to enroll in NetDMR for electronic submittal of the monthly reports.

5) Section 4.0 of the permit and the NOI form have been updated to require a flow schematic diagram of the permitted site.

6) The NOI has been updated to request email addresses if available for the listed Potentially Affected Persons who require notifications under IC 4-21.5.

7) The certification statement on the NOI form has been updated to include language from Title 13-30 of the Indiana Code.

8) Additional standard permit conditions were added to the permit as Sections 6.10 thru 6.14. A new section of definitions was also added as Section 6.15.

POST PUBLIC NOTICE ADDENDUM: October 16, 2020

The draft NPDES general permit renewal for ING080000 was made available for public comment from September 14, 2020 through October 14, 2020 as part of Public Notice No. 20200914-ING080000-RD. A legal ad notice was published in the Indianapolis Star on September 14, 2020 and a notice was also posted on IDEM's web page at https://www.IN.gov/idem/5474.htm, under the heading for statewide public notices, https://www.in.gov/idem/6777.htm for the duration of the comment period. The version posted on our website contained the entire draft permit renewal document along with the NPDES fact sheet and the draft revised Notice of Intent form. Copies of the draft permit and related documents were also sent out to the existing general permittees via e-mail.

During this official public comment period, IDEM did not receive any comments. However, IDEM noted several corrections which needed to be made to the draft permit after the close of the public comment period. These changes are relatively minor in nature and therefore do not warrant the reopening of the official public notice comment period. These changes to the permit and/or Fact Sheet are discussed below.

1. IDEM OWQ Compliance staff has recommended a slight adjustment to the sampling type for Total Flow in Section 2.1 of the general permit. The U.S. EPA ICIS database does not have a matching sampling parameter entitled "Cumulative Recorded Total". This was the terminology which we had used in the 2015 general permit, however it was determined that the best and closest descriptive parameter available in the ICIS database to represent this parameter is "Recorder Total". Therefore, we have changed the sample type accordingly, although the directions in the associated footnote will remain the same. This term has also been updated in Section 6.15 of the general permit which contains terminology definitions. We also added a definition for the term "Commissioner" to Section 6.15.

2. IDEM replaced all references to "receiving stream(s)" with "receiving water(s)" in the general permit, fact sheet and the NOI to ensure consistency and to avoid any potential misinterpretation of the applicability of these permit requirements, especially for those dischargers which may not discharge into a "stream".