

NPDES Permit No. IL0080069  
Notice No. LRL:14103001.docx

Public Notice Beginning Date: **December 5, 2014**

Public Notice Ending Date: **January 5, 2015**

National Pollutant Discharge Elimination System (NPDES)  
Permit Program

Draft New NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency  
Bureau of Water  
Division of Water Pollution Control  
Permit Section  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276  
217/782-0610

Name and Address of Discharger:

Mac's Convenience Stores LLC  
P.O. Box 347  
Columbus, Indiana 47202

Name and Address of Facility:

Mac's Convenience Stores LLC  
Circle K #1212  
1827 18<sup>th</sup> Ave.  
Rock Island, Illinois 61244  
(Rock Island County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES permit to discharge into the waters of the state and has prepared a draft permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. The last day comments will be received will be on the Public Notice period ending date unless a commentor demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the draft permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the permit applicant. The NPDES permit and notice number(s) must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final permit is issued. For further information, please call Leslie Lowry at 217/782-0610.

The applicant is engaged in operating a groundwater remediation system (SIC 5541). Plant operation results in an average discharge of 0.011 MGD of treated groundwater from outfall 001.

Application is made for a new discharge which is located in Rock Island County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

<u>Outfall</u>	<u>Receiving Stream</u>	<u>Latitude</u>		<u>Longitude</u>		<u>Stream Classification</u>	<u>Integrity Rating</u>
001	Unnamed Tributary to Sugar Creek	41° 31' 0"	North	90° 25' 30"	West	General Use	Not Rated

To assist you further in identifying the location of the discharge please see the attached map.

The stream segment receiving the discharge from outfall 001 is not on the 2012 303(d) list of impaired waters and is not a biologically significant stream on the 2008 Illinois Department of Natural Resources Publication – *Integrating Multiple Taxa in a Biological Stream Rating System*.

The discharge from the facility shall be monitored and limited at all times as follows:

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)			CONCENTRATION LIMITS mg/l		
	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION
<u>Outfall 001:</u>						
Flow (MGD)						
pH				6 – 9 s.u.		35 IAC 304.125
Total Suspended Solids				15	30	35 IAC 304.124
Oil & Grease				15	30	35 IAC 304.124
Benzene					0.05	40 CFR 125.3
Ethylbenzene				0.014	0.15	35 IAC 302.208
Toluene				0.6	2	35 IAC 302.208
Xylenes				0.36	0.92	35 IAC 302.208
BETX (Total)					0.75	40 CFR 125.3

The following explain the conditions of the proposed permit:

The special conditions clarify flow, pH, monitoring locations, additives, and discharge monitoring report submission.



Antidegradation Assessment for Mac's Convenience Store LLC – Circle K #1212  
NPDES Permit No. IL0080069 Rock Island County

---

The facility is constructing a groundwater treatment system to remediate unleaded gasoline leaked from tanks at the site. The system will produce an average of 10,800 gallons per day (gpd) of treated water. The facility will utilize a multi-phase extraction system that will separate the gasoline from the groundwater for recovery and then treat the remaining groundwater using air stripping and if necessary, carbon filtration.

#### **Identification and Characterization of the Affected Water Body.**

The receiving water is an unnamed tributary of Sugar Creek (no segment code). The USGS Streamstats website gives the upstream watershed area at 1.66 square miles. The unnamed tributary of Sugar Creek is not listed as an impaired water in the draft 2014 Illinois Integrated Water Quality Report and Section 303(d) List. The Illinois EPA has not assessed this stream. The unnamed tributary of Sugar Creek is not listed as a Biologically Significant Stream nor is it given an integrity rating at this location in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*. The unnamed tributary of Sugar Creek is not an enhanced water body pursuant to the dissolved oxygen water quality standard.

#### **Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.**

Pollutants to be removed from the groundwater are the BETX substances. Trace amounts of these substances will remain after treatment. Acute and chronic water quality standards will be applied as permit limits. No adverse impact on aquatic life is anticipated.

The proposed facility wishes to use Foulproof-HS2 for scale inhibition in their groundwater treatment system. The product is composed of potassium hydroxide (5-10%) which would potentially result in a low pH effluent if over-applied. However, pH limits for this permit would regulate the usage of the product and assure that no adverse impacts to the receiving water occur. Use of the product is approved providing pH limits would be attained.

#### **Fate and Effect of Parameters Proposed for Increased Loading.**

Any remaining traces of BETX substances will volatilize after the effluent is discharged. There will be no adverse effect on the receiving stream.

#### **Purpose and Anticipated Benefits of the Proposed Activity.**

Contaminated groundwater under a gas station will be remediated by this project. The local community will benefit from a cleaner environment.

#### **Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.**

The most efficient option for disposal of the treated groundwater would be discharge to the municipal sewer system where any traces of BETX would be removed in the sewage treatment plant. However, a local ordinance in East Moline prevents the discharge of groundwater to the sewer system. The treatment proposed is the standard for gasoline remediation sites, i.e., LUST sites. Pollutants are reduced to trace levels. Other alternatives would involve transporting pollutants off-site for disposal elsewhere.

#### **Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities**

An Eco-CAT endangered species consultation submitted on October 16, 2014 to the Illinois Department of Natural Resources resulted in the identification of several endangered or threatened mussel species in the area. Further investigation by IDNR resulted in the finding that adverse impacts are unlikely and that consultation was terminated, as indicated in an October 20, 2014 letter.

#### **Agency Conclusion.**

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time the draft permit was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all existing uses of the receiving stream will be maintained; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community by providing clean-up of contaminated groundwater. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.

NPDES Permit No. IL0080069

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

New (NPDES) Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Permittee:

Mac's Convenience Stores LLC  
P.O. Box 347  
Columbus, Indiana 47202

Facility Name and Address:

Mac's Convenience Stores LLC  
Circle K #1212  
1827 18<sup>th</sup> Ave.  
Rock Island, Illinois 61244  
(Rock Island County)

Discharge Number and Name:

001 Treated Groundwater

Receiving Waters:

Unnamed Tributary to Sugar Creek

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Alan Keller, P.E.  
Manager, Permit Section  
Division of Water Pollution Control

SAK:LRL:14103001.docx

NPDES Permit No. IL0080069

Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharge shall be monitored and limited at all times as follows:

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall 001</u> – Treated Groundwater (DAF = 0.011 MGD)						
Flow (MGD)	See Special Condition 1.				1/Month	Measure
pH	See Special Condition 2.				1/Month	Grab
Total Suspended Solids			15	30	1/Month	Grab
Oil & Grease			15	30	1/Month	Grab
Benzene				0.05	1/Month	Grab
Ethylbenzene			0.014	0.15	1/Month	Grab
Toluene			0.6	2	1/Month	Grab
Xylenes			0.36	0.92	1/Month	Grab
BETX (Total)				0.75	1/Month	Calculation

Special Conditions

SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day (MGD) and reported as a monthly average and a daily maximum value on the Discharge Monitoring Report.

SPECIAL CONDITION 2. The pH shall be in the range 6.0 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 3. The use or operation of this facility shall be by or under the supervision of a Certified Class K operator.

SPECIAL CONDITION 4. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 5. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/net-dmr/index.html>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 15th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using NetDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency  
Division of Water Pollution Control  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 6. If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

SPECIAL CONDITION 7. This permit authorizes the use of water treatment additives that were requested as part of this application. The use of any new additives, or change in those previously approved by the Agency, or if the permittee increases the feed rate or quantity of the additives used beyond what has been approved by the Agency, the permittee shall request a modification of this permit in accordance with the Standard Conditions – Attachment H.

SPECIAL CONDITION 8. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302.