

NPDES Permit No. IL0080076

Notice No. IL0080076-15.TTL

Public Notice Beginning Date: **May 14, 2015**

Public Notice Ending Date: **June 15, 2015**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

PUBLIC NOTICE/FACT SHEET
of
Draft New NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois EPA
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 Permittee:

Village of Omaha
184 Harrell Avenue
Omaha, Illinois 62871

Name and Address of Facility:

Village of Omaha-STP
West end of Davis Avenue
Omaha, Illinois 62871
(Gallatin 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 Permittee. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. All comments on the draft Permit and requests for hearing must be received by the IEPA by U.S. Mail, carrier mail or hand delivered by the Public Notice Ending Date. 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 numbers 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 Todd Lamm at 217/782-0610.

The following water quality and effluent standards and limitations were applied to the discharge:

Title 35: Environmental Protection, Subtitle C: Water Pollution, Chapter I: Pollution Control Board and the Clean Water Act were applied in determining the applicable standards, limitations and conditions contained in the draft Permit.

The applicant is engaged in treating domestic wastewater for the Village of Omaha.

The length of the Permit is approximately 5 years.

The main discharge number is 001. The seven day once in ten year low flow (7Q10) of the receiving stream, unnamed tributary to Cane Creek is 0 cfs.

The design average flow (DAF) for the facility is 0.016 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 0.032 MGD. Treatment consists of septic tanks, recirculating sand filter, disinfection (chlorine), dechlorination, and discharge to surface water.

Pursuant to the waiver provisions authorized by 40 CFR Section 123.24, this draft permit is within the class, type, and size for which the Regional Administrator, Region V, has waived his right to review, object, or comment on this draft permit action.

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

<u>Discharge Number</u>	<u>Receiving Stream</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Stream Classification</u>	<u>Integrity Rating</u>
001	Unnamed Tributary to Cane Creek	37° 53' 30" North	88° 18' 30" West	General Use	Not Rated

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

The stream segment, which has no designation, receiving the discharge from outfall 001 is not on the Draft 2014 303(d) list of impaired waters.

The discharge(s) from the facility is (are) proposed to be monitored and limited at all times as follows:

Discharge Number(s) and Name(s): STP Outfall 001

Load limits computed based on a design average flow (DAF) of 0.016 MGD (design maximum flow (DMF) of 0.032 MGD).

The effluent of the above discharge(s) shall be monitored and limited at all times as follows:

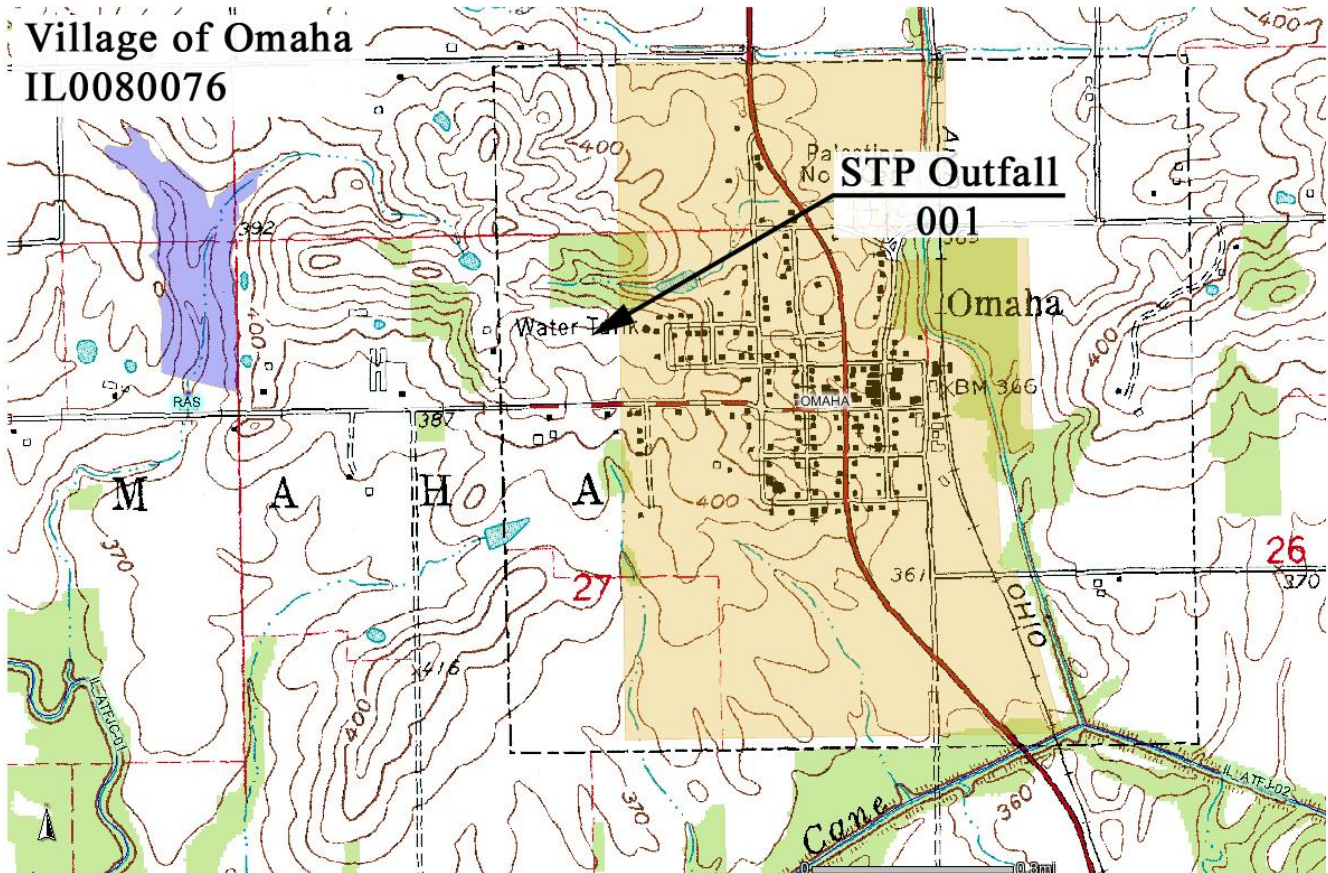
Parameter	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS mg/L			Regulation
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	
CBOD ₅ **	1.3 (2.7)		2.7 (5.3)	10		20	35 IAC 304.120 40 CFR 133.102
Suspended Solids**	1.6 (3.2)		3.2 (6.4)	12		24	35 IAC 304.120 40 CFR 133.102
pH	Shall be in the range of 6 to 9 Standard Units						35 IAC 304.125
Fecal Coliform	Daily Maximum shall not exceed 400 per 100 mL (May through October)						35 IAC 304.121
Chlorine Residual						0.05	35 IAC 302.208
Ammonia Nitrogen: Mar-May, Sept.-Oct.	0.28 (0.56)	0.71 (1.4)	1.6 (3.2)	2.1	5.3	12.1	35 IAC 355 and
June-August	0.20 (0.40)	0.51 (1.0)	1.3 (2.6)	1.5	3.8	9.6	35 IAC 302
November-February	0.53 (1.1)		0.96 (1.9)	4	NA	7.2	
				Monthly Avg. not less than	Weekly Avg. not less than	Daily Minimum	
Dissolved Oxygen March-July				NA	6.0	5.0	35 IAC 302.206
August-February				5.5	4.0	3.5	

*Load Limits are calculated by using the formula: $8.34 \times (\text{Design Average and/or Maximum Flow in MGD}) \times (\text{Applicable Concentration in mg/L})$.

**The 30-day average percent removal shall not be less than 85 percent.

This draft Permit also contains the following requirements as special conditions:

1. Reopening of this Permit to include different final effluent limitations.
2. Operation of the facility by or under the supervision of a certified operator.
3. Submission of the operational data in a specified form and at a required frequency at any time during the effective term of this Permit.
4. More frequent monitoring requirement without Public Notice in the event of operational, maintenance or other problems resulting in possible effluent deterioration.
5. Prohibition against causing or contributing to violations of water quality standards.
6. Recording the monitoring results on Discharge Monitoring Report Forms using one such form for each outfall each month and submitting the forms to IEPA each month.
7. Effluent sampling point location.
8. Provisions of 40 CFR Section 122.41 (m) & (n).
9. Controlling the sources of infiltration and inflow into the sewer system.
10. Seasonal fecal coliform limits.
11. Submission of annual fiscal data.
12. At minimum of 85% removal of CBOD₅ and suspended solids.
13. Submission of semi annual reports indicating the quantities of sludge generated and disposed.



Antidegradation Assessment for Omaha STP
NPDES Permit No. IL0080076 Gallatin County

The Village of Omaha has applied for an NPDES permit for a new sewage treatment plant with a DAF of 0.016 MGD. The Village currently does not have a collection or treatment system. The Egyptian Public and Mental Health Department informed the Village that the local storm drainage system is contaminated by domestic sewage. The Village proposes to build a collection and treatment system consisting of individual septic tanks with the effluent collected in small diameter force mains and sent to a recirculating sand filter treatment plant. An unnamed tributary of Cane Creek will receive the effluent.

Identification and Characterization of the Affected Water Body.

The unnamed tributary of Cane Creek (no segment ID) has a 7Q10 flow of zero and is a General Use water. The stream is not listed on the draft 2014 Illinois 303(d) List. The stream is not rated under the Agency's Biological Stream Characterization (BSC) system. This segment is not an enhanced water body pursuant to the dissolved oxygen water quality standard. The unnamed tributary of Cane Creek at this location is not listed as a Biologically Significant Stream nor is it given an Integrity Rating in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*. The USGS StreamStats program gives the watershed area above the discharge location as 0.04 square miles. The receiving stream is therefore a 7Q1.1 = zero flow stream. Streams of this nature frequently go dry during periods of low rainfall. Illinois EPA is aware of the types of aquatic life organisms that inhabit these streams and the water quality of these streams and therefore no biological or chemical characterization was required.

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

The treated wastewater that characterizes this proposed effluent would be similar to other treated effluents of purely domestic origin. Ammonia limits in the permit will be set at water quality standards; however, ammonia loading to the receiving stream may increase over existing background levels. Biochemical oxygen demand (BOD) permit limits will be set at the appropriate effluent standards present in 35 IAC 304.120. The stream may nonetheless experience an increase in loading due to the new effluent discharge. Since untreated or poorly treated sewage is currently being discharged to local waterways due to the lack of a centralized sewage treatment system, loadings of BOD and ammonia making their way into streams may actually be reduced once the treatment plant and collection system is operational.

Likewise, phosphorus loading may or may not increase given the aforementioned existing condition. Any phosphorus load increase that possibly will occur will be extremely small. No phosphorus effluent standard applies to the planned facility.

Fate and Effect of Parameters Proposed for Increased Loading.

The BOD and ammonia discharged by this facility will decay into simpler and harmless byproducts by naturally occurring organisms in the receiving stream. Some of the nitrogen originating in the ammonia will remain in the stream in the form of nitrates or organic nitrogen. Ammonia and dissolved oxygen standards within the receiving stream will not be exceeded by this discharge. Nutrients discharged by the new plant will either be absorbed by aquatic or riparian plants or remain in the water or sediment as each moves downstream. No adverse effects to aquatic life or other impacts to uses are anticipated.

Purpose and Anticipated Benefits of the Proposed Activity.

The project will provide a sewage collection and treatment system for the community which currently has a population of about 260. Significant public health benefits will be realized as untreated sewage will be removed from area waterways.

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

The plans for construction of a nitrifying treatment plant are consistent with appropriate technology for this size and type of project. Treatment plant specifications have been selected to avoid or minimize environmental impacts. They also represent an economically reasonable design taking into consideration both initial capital costs and ongoing maintenance expenses. Viable alternatives to the selected treatment process do not exist for this project.

The Village considered regionalization with neighboring communities but this alternative was rejected due to the cost of transmitting sewage over long distances.

Land application is more expensive than conventional treatment plants and therefore was not considered by the Village.

The engineer for the Village conducted an analysis of the cost of building a treatment plant capable of removing nutrients. A biological nutrient removal filter was considered. The cost for this system was determined to be unaffordable for the community using USEPA's Interim Economic Guidance for Water Quality Standards.

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

The Illinois Department of Natural Resources was consulted via EcoCat for endangered species issues on April 29, 2015. It was immediately determined that there are no endangered species issues for this project and consultation was terminated.

Agency Conclusion.

This assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard). We find that the proposed activity will result in the attainment of water quality standards. All existing uses will be fully protected. 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. This activity will benefit the community at large by providing adequate sewage treatment for the community for the immediate future. The proposed activity is therefore compliant with the Antidegradation standard.

NPDES Permit No. IL0080076

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:

Village of Omaha
184 Harrell Avenue
Omaha, Illinois 62871

Facility Name and Address:

Village of Omaha-STP
West end of Davis Avenue
Omaha, Illinois 62871
(Gallatin County)

Receiving Waters: Unnamed Tributary to Cane Creek

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of the Ill. Adm. Code, Subtitle C, Chapter I, 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:TTL:IL0080076-15.TTL

NPDES Permit No. IL0080076

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): STP Outfall 001

Load limits computed based on a design average flow (DAF) of 0.016 MGD (design maximum flow (DMF) of 0.032 MGD).

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) 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
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum		
Flow (MGD)							Continuous	
CBOD ₅ ** ,****	1.3 (2.7)		2.7 (5.3)	10		20	1 Day/Month	Composite
Suspended Solids****	1.6 (3.2)		3.2 (6.4)	12		24	1 Day/Month	Composite
pH	Shall be in the range of 6 to 9 Standard Units						1 Day/Month	Grab
Fecal Coliform***	Daily Maximum shall not exceed 400 per 100 mL (May through October)						1 Day/Month	Grab
Chlorine Residual***						0.05	1 Day/Month	Grab
Ammonia Nitrogen: (as N)								
Mar-May, Sept.-Oct.	0.28 (0.56)	0.71 (1.4)	1.6 (3.2)	2.1	5.3	12.1	1 Day/Month	Composite
June-August	0.20 (0.40)	0.51 (1.0)	1.3 (2.6)	1.5	3.8	9.6	1 Day/Month	Composite
November-February	0.53 (1.1)		0.96 (1.9)	4	NA	7.2	1 Day/Month	Composite
				Monthly Average not less than	Weekly Average not less than	Daily Minimum		
Dissolved Oxygen March-July				NA	6.0	5.0	1 Day/Month	Grab
August-February				5.5	4.0	3.5	1 Day/Month	Grab

*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.

**Carbonaceous BOD₅ (CBOD₅) testing shall be in accordance with 40 CFR 136.

***See Special Condition 10.

****The 30-day average percent removal shall not be less than 85 percent. See Special Condition 12.

Flow shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

Fecal Coliform shall be reported on the DMR as a daily maximum value.

pH shall be reported on the DMR as minimum and maximum value.

Chlorine Residual shall be reported on DMR as daily maximum value.

Dissolved oxygen shall be reported on the DMR as a minimum value.

NPDES Permit No. IL0080076

Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

<u>Parameter</u>	<u>Sample Frequency</u>	<u>Sample Type</u>
Flow (MGD)	Continuous	
BOD ₅	1 Day/Month	Composite
Suspended Solids	1 Day/Month	Composite

Influent samples shall be taken at a point representative of the influent.

Flow (MGD) shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

BOD₅ and Suspended Solids shall be reported on the DMR as a monthly average concentration.

Special Conditions

SPECIAL CONDITION 1: This Permit may be modified to include different final effluent limitations or requirements which are consistent with applicable laws, regulations, or judicial orders. The IEPA will public notice the permit modification.

SPECIAL CONDITION 2: The use or operation of this facility shall be by or under the supervision of a Certified Class 3 operator.

SPECIAL CONDITION 3: The IEPA may request in writing submittal of operational information in a specified form and at a required frequency at any time during the effective period of this Permit.

SPECIAL CONDITION 4: The IEPA may request more frequent monitoring by permit modification pursuant to 40 CFR Section 122.63 and Without Public Notice in the event of operational, maintenance or other problems resulting in possible effluent deterioration.

SPECIAL CONDITION 5: 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.

SPECIAL CONDITION 6: 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 25th 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
Attention: Compliance Assurance Section, Mail Code # 19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

SPECIAL CONDITION 7: 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 8: The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.

SPECIAL CONDITION 9: This Permit may be modified to include requirements for the Permittee on a continuing basis to evaluate and detail its efforts to effectively control sources of infiltration and inflow into the sewer system and to submit reports to the IEPA if necessary.

SPECIAL CONDITION 10: Fecal Coliform limits for Discharge Number 001 are effective May thru October. Sampling of Fecal Coliform is only required during this time period.

The total residual chlorine limit is applicable at all times. If the Permittee is chlorinating for any purpose during the months of November through April, sampling is required on a daily grab basis. Sampling frequency for the months of May through October shall be as indicated on effluent limitations, monitoring and reporting page of this Permit.

SPECIAL CONDITION 11: During January of each year the Permittee shall submit annual fiscal data regarding sewerage system operations to the Illinois Environmental Protection Agency/Division of Water Pollution Control/Compliance Assurance Section. The Permittee may use any fiscal year period provided the period ends within twelve (12) months of the submission date.

Submission shall be on forms provided by IEPA titled "Fiscal Report Form For NPDES Permittees".

SPECIAL CONDITION 12: BOD₅ and Suspended Solids (85% removal required) For Discharge No. 001: In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent except as provided in Sections 133.103 and 133.105. The percent removal need not be reported to the IEPA on DMRs but influent and effluent data must be available, as required elsewhere in this Permit, for IEPA inspection and review. For measuring compliance with this requirement, 5 mg/L shall be added to the effluent CBOD₅ concentration to determine the effluent BOD₅ concentration.

Percent removal is a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

Special Conditions

SPECIAL CONDITION 14. For the duration of this Permit, the Permittee shall determine the quantity of sludge produced by the treatment facility in dry tons or gallons with average percent total solids analysis. The Permittee shall maintain adequate records of the quantities of sludge produced and have said records available for IEPA inspection. The Permittee shall submit to the IEPA, at a minimum, a semi-annual summary report of the quantities of sludge generated and disposed of, in units of dry tons or gallons (average total percent solids) by different disposal methods including but not limited to application on farmland, application on reclamation land, landfilling, public distribution, dedicated land disposal, sod farms, storage lagoons or any other specified disposal method. Said reports shall be submitted to the IEPA by January 31 and July 31 of each year reporting the preceding January thru June and July thru December interval of sludge disposal operations.

Duty to Mitigate. The Permittee shall take all reasonable steps to minimize any sludge use or disposal in violation of this Permit.

Sludge monitoring must be conducted according to test procedures approved under 40 CFR 136 unless otherwise specified in 40 CFR 503, unless other test procedures have been specified in this Permit.

Planned Changes. The Permittee shall give notice to the IEPA on the semi-annual report of any changes in sludge use and disposal.

The Permittee shall retain records of all sludge monitoring, and reports required by the Sludge Permit as referenced in Standard Condition 25 for a period of at least five (5) years from the date of this Permit.

If the Permittee monitors any pollutant more frequently than required by the Sludge Permit, the results of this monitoring shall be included in the reporting of data submitted to the IEPA.

The Permittee shall comply with existing federal regulations governing sewage sludge use or disposal and shall comply with all existing applicable regulations in any jurisdiction in which the sewage sludge is actually used or disposed.

The permit may be modified to incorporate any applicable standards for sewage sludge use or disposal promulgated under Section 45(d) of the CWA.

The Permittee shall comply with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish the standards for sewage sludge use or disposal even if the permit has not been modified to incorporate the requirement.

The Permittee shall ensure that the applicable requirements in 40 CFR Part 503 are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator.

Monitoring reports for sludge shall be reported on the form titled "Sludge Management Reports" to the following address:

Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section
Mail Code #19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276