

NPDES Permit No. IL0059005

Notice No. JCH:13101502.bah

Public Notice Beginning Date: **January 9, 2014**

Public Notice Ending Date: **February 10, 2014**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

PUBLIC NOTICE/FACT SHEET
of
Draft Reissued 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:

City of Villa Grove
P.O. Box 108
Villa Grove, Illinois 61956

Name and Address of Facility:

Villa Grove STP
700 North West Street
Villa Grove, Illinois
(Douglas 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 Jeff Hutton 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 City of Villa Grove.

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, Embarras River is 0 cfs.

The design average flow (DAF) for the facility is 0.6 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 1.2 MGD. Treatment consists of flow equalization, dual parallel activated sludge (extended aeration/aerobic digestion) package plants, rapid sand filtration, excess flow treatment and chlorination.

This Reissued Permit does not increase the facility's DAF, DMF, concentration limits, and/or load limits.

Pursuant to the waiver provisions authorized by 40 CFR § 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.

This Permit recognizes and continues the year-round disinfection exemption approved by the IEPA on February 25, 1991 and included in past NPDES permit actions since that date. It is the IEPA's tentative decision that under Illinois Pollution Control Board regulations, the following reach of waterbody is not classified for primary contact use activities and is not subject to the fecal coliform water quality standard of 35 Ill. Adm. Code 302.209.

This draft permit does not contain requirements for disinfection of the discharge from discharge numbers(s) 001. Embarras River from the point of discharge in Section 3, T16N, R9E, to a point 100 feet downstream has been determined to be unsuited to support primary contact activities (swimming) due to physical, hydrologic or geographic configuration. Anyone knowing of primary contact activities occurring within this water segment is invited to submit comments to the IEPA. Comments should give the nature of the activities (i.e swimming, fishing, canoeing, etc.), the location and months of the year when these activities have been observed. The IEPA is also interested in obtaining information on the proximity of residential dwellings and the accessibility of the public to this water segment. Anyone with such information is asked to submit comments to the IEPA on this draft permit action. Instructions for submitting comments are contained earlier in this document.

Application is made for the existing discharge(s) which are located in Douglas 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 | Embarras River | 39° 52' 18" North | 88° 10' 19" West | General Use | B |
| 003 | Embarras River | 39° 52' 18" North | 88° 10' 19" West | General Use | B |

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

The stream segment(s), BE-25, receiving the discharge from outfall(s) 001, 003 are on the 303(d) list of impaired waters.

The following parameters have been identified as the pollutants causing impairment:

| <u>Potential Causes</u> | <u>Uses Impaired</u> |
|--|----------------------|
| Stream-side or littoral vegetative cover (non-pollutant) | Aquatic Life |

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): 001-STP Outfall

Load limits computed based on a design average flow (DAF) of 0.6 MGD (design maximum flow (DMF) of 1.2 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 | 50 (100) | | 100 (200) | 10 | | 20 | 35 IAC 304.120 40 CFR 133.102 |
| Suspended Solids | 60 (120) | | 120 (240) | 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 | Monitor only | | | | | | 35 IAC 309.146 |
| Chlorine Residual | | | | | | 0.05 | 35 IAC 302.208 |
| Ammonia Nitrogen: April-May/Sept.-Oct. | 7(14) | 22 (43) | 24 (47) | 1.4 | 4.3 | 4.7 | 35 IAC 355 and 35 IAC 302 |
| June-August | 7 (14) | 19 (38) | 24(47) | 1.4 | 3.8 | 4.7 | |
| Nov.-Feb. | 20(40) | | 36 (71) | 4.0 | | 7.1 | |
| March | 8.5 (17) | 22 (43) | 36 (71) | 1.7 | 4.3 | 7.1 | |
| Phosphorus | 5(10) | | 10 (20) | 1.0 | | 2.0 | 35 IAC 304.123 |
| Total Nitrogen | Monitor only | | | | | | 35 IAC 309.146 |
| | | | | Monthly Avg. not less than | Weekly Avg. not less than | Daily Minimum | |
| Dissolved Oxygen March-July | | | | N/A | 6.0 | 5.0 | 35 IAC 302.206 |
| August-February | | | | 5.5 | 4.0 | 3.5 | |

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

This Permit contains an approval to treat and discharge excess flow as follows:

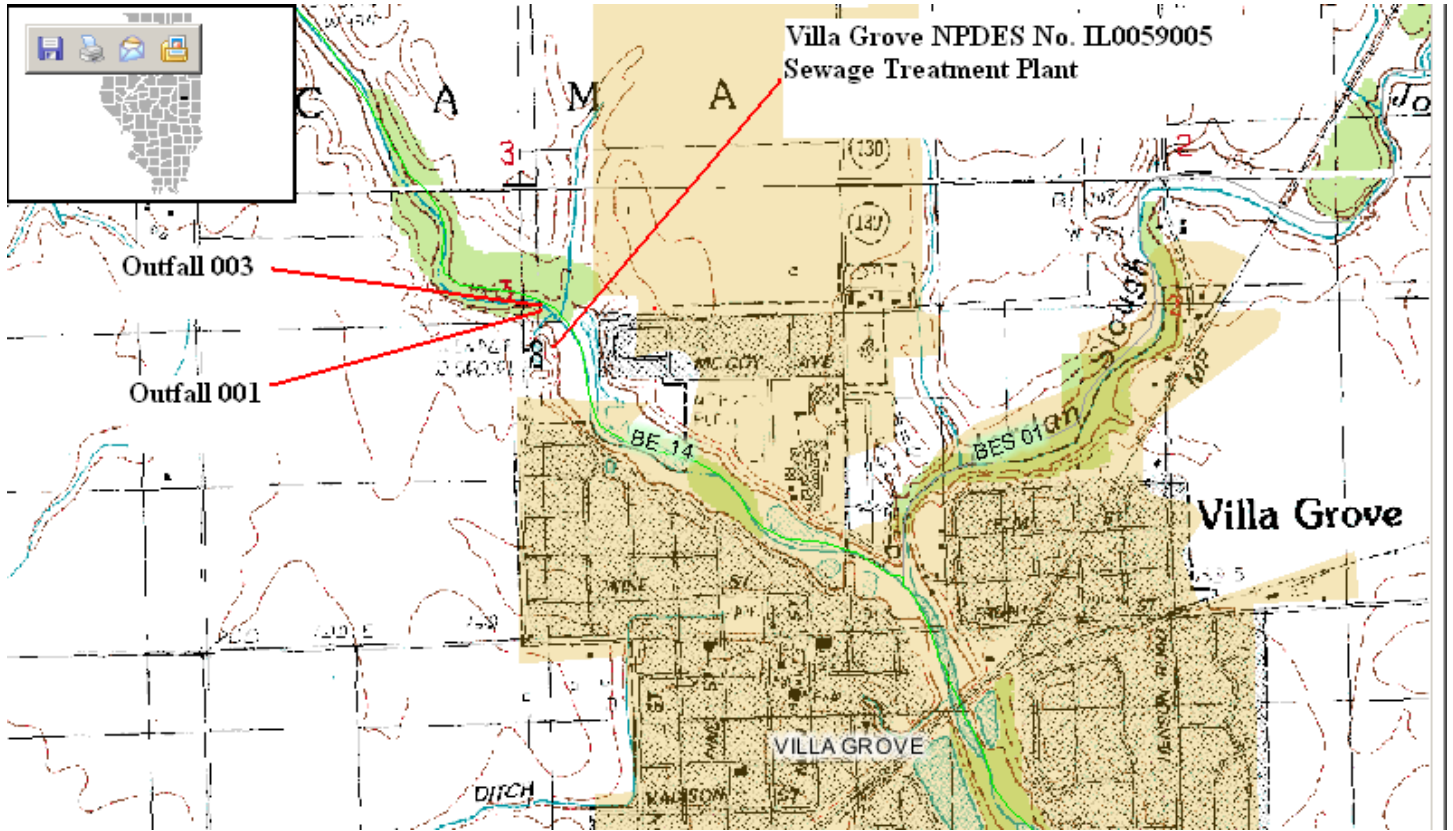
Discharge Number(s) and Name(s): 003 Excess Flow

| <u>Parameter</u> | <u>CONCENTRATION LIMITS (mg/L)</u> | | <u>Regulation</u> |
|--------------------|--|-----------------------|-------------------|
| | <u>Monthly Average</u> | <u>Weekly Average</u> | |
| BOD ₅ * | 30 | 45 | 40 CFR 133.102 |
| Suspended Solids* | 30 | 45 | 40 CFR 133.102 |
| Fecal Coliform | Daily Maximum Shall Not Exceed 400 per 100 mL | | 35 IAC 304.121 |
| pH | Shall be in the range of 6 to 9 Standard Units | | 35 IAC 304.125 |
| Chlorine Residual | 0.75 | | 35 IAC 304.208 |

*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. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.
8. Effluent sampling point location.
9. A requirement to monitor and a limit of 0.05 mg/L for residual chlorine when it is used.
10. Submission of annual fiscal data.
11. Submission of semi-annual reports indicating the quantities of sludge generated and disposed.
12. CMOM.
13. 85% removal requirement.



NPDES Permit No. IL0059005

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

Reissued (NPDES) Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Permittee:

City of Villa Grove
P.O. Box 108
Villa Grove, Illinois 61956

Facility Name and Address:

Villa Grove STP
700 North West Street
Villa Grove, Illinois
(Douglas County)

Receiving Waters: Embarras River

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

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Effluent Limitations, Monitoring, and Reporting

FINAL

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

Load limits computed based on a design average flow (DAF) of 0.6 MGD (design maximum flow (DMF) of 1.2 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 ** | 50 (100) | | 100 (200) | 10 | | 20 | 2 Days/Week | Composite |
| Suspended Solids | 60 (120) | | 120 (240) | 12 | | 24 | 2 Days/Week | Composite |
| pH | Shall be in the range of 6 to 9 Standard Units | | | | | | 2 Days/Week | Grab |
| Fecal Coliform | Monitor only | | | | | | 2 Days/Week | Grab |
| Chlorine Residual | | | | | | 0.05 | *** | Grab |
| Ammonia Nitrogen: As (N) | | | | | | | | |
| April-May/Sept.-Oct. | 7(14) | 22 (43) | 24 (47) | 1.4 | 4.3 | 4.7 | 2 Days/Week | Composite |
| June-August | 7 (14) | 19 (38) | 24(47) | 1.4 | 3.8 | 4.7 | 2 Days/Week | Composite |
| Nov.-Feb. | 20(40) | | 36 (71) | 2.7 | | 7.1 | 2 Days/Week | Composite |
| March | 8.5 (17) | 22 (43) | 36 (71) | 1.7 | 4.3 | 7.1 | 2 Days/Week | Composite |
| Phosphorus | 5(10) | | 10 (20) | 1.0 | | 2.0 | 2 Days/Week | Composite |
| | | | | Monthly Average not less than | Weekly Average not less than | Daily Minimum | | |
| Dissolved Oxygen March-July | | | | N/A | 6.0 | 5.0 | 2 Days/Week | Grab |
| August-February | | | | 5.5 | 4.0 | 3.5 | 2 Days/Week | 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 9.

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

Fecal Coliform shall be monitored May through October and 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. IL0059005

Effluent, Limitations, Monitoring, and Reporting

Discharge Number(s) and Name(s): 003 Excess Flow

These facilities shall not be utilized until the main treatment facility is receiving its maximum practical flow* (flow in excess of 1.2 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:

| <u>Parameter</u> | <u>CONCENTRATION LIMITS (mg/L)</u> | | <u>Sample Frequency</u> | <u>Sample Type</u> |
|---------------------|--|----|-------------------------|--------------------|
| | <u>Monthly Average</u> | | | |
| Total Flow (MG) | | | Daily When Discharging | Continuous |
| BOD ₅ ** | 30 | 45 | Daily When Discharging | Grab |
| Suspended Solids** | 30 | 45 | Daily When Discharging | Grab |
| Fecal Coliform | Daily Maximum Shall not Exceed 400 per 100 mL | | Daily When Discharging | Grab |
| pH | Shall be in the range of 6 to 9 Standard Units | | Daily When Discharging | Grab |
| Chlorine Residual | 0.75 | | Daily When Discharging | Grab |

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.

Report the number of days of discharge in the comments section of the DMR.

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

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

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

Chlorine Residual shall be reported on the DMR as monthly average.

*An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving Design Maximum Flow (DMF). The explanation shall identify the reasons the main facility is at diminished capacity. Additionally, the Permittee shall comply with the provisions of Special Condition 7.

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

NPDES Permit No. IL0059005

Special Conditions

NPDES Permit No. IL0059005

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 | 2 Days/Week | Composite |
| Suspended Solids | 2 Days/Week | 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 2 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 § 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 (eDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the eDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/edmr/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 eDMRs 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. The provisions of 40 CFR Section 122.41(m) & (n) are applicable and are hereby incorporated by reference.

SPECIAL CONDITION 8. 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 9. For Discharge No. 001, any use of chlorine to control slime growths, odors or as an operational control, etc. shall not exceed the limit of 0.05 mg/L (daily maximum) total residual chlorine in the effluent. Sampling is required on a daily grab basis during the chlorination process. Reporting shall be submitted on the DMR's on a monthly basis.

SPECIAL CONDITION 10. 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 11. 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

Special Conditions

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.

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

SPECIAL CONDITION 12. The Permittee shall work towards the goals of achieving no discharges from sanitary sewer overflows or basement backups and ensuring that overflows or backups, when they do occur do not cause or contribute to violations of applicable standards or cause impairment in any adjacent receiving water. In order to accomplish these goals, the Permittee shall develop, implement and submit to the IEPA a Capacity, Management, Operations, and Maintenance (CMOM) plan within twelve (12) months of the effective date of this Permit. The Permittee may be required to construct additional sewage transport and/or treatment facilities in future permits or other enforceable documents.

The CMOM plan shall include the following elements:

A. Measures and Activities:

1. A complete map of the collection system;
2. Schedules, checklists, and mechanisms to ensure that preventative maintenance is performed on equipment;
3. An assessment of the capacity of the collection and treatment system at critical junctions and immediately upstream of locations where overflows and backups occur or are likely to occur; and
4. Identification and prioritization of structural deficiencies in the system.

B. Design and Performance Provisions:

1. Monitor the effectiveness of CMOM;
2. Upgrade the elements of the CMOM plan as necessary; and,
3. Maintain a summary of CMOM activities.

C. Overflow Response Plan:

1. Know where overflows and backups occur; and,
2. Respond to each overflow or backup to determine additional actions such as clean up.

D. System Evaluation Plan.

E. Reporting and Monitoring Requirements.

SPECIAL CONDITION 13. Final conditions - For Discharge Nos. 001 and 003: BOD₅ and suspended solids (85% removal required): The arithmetic mean of the values for effluent samples collected in a period of once calendar month shall not exceed 15 percent of arithmetic mean of the values for influent samples collected at approximately the same time during the same period, except during those periods when the influent is diluted because of high flows if the tributary sewer system is combined. 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, 5mg/L shall be added to the effluent CBOD₅ concentration to determine the effluent BOD₅ concentration.