STEVEN L. BESHEAR
GOVERNOR

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
200 FAIR OAKS LANE
FRANKFORT, KENTUCKY 40601-1190
www.kentucky.gov

LEONARD K. PETERS
SECRETARY

FACT SHEET

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE TREATED WASTEWATER INTO WATERS OF THE COMMONWEALTH

KPDES No.: KY0026115 **Permit Writer:** Dan Juett **Date:** February 27, 2009
AI No.: 1733

1. **SYNOPSIS OF APPLICATION**

a. Name and Address of Applicant

City of Loyall
P. O. Box 1060
Loyall, Kentucky 40854

b. Facility Location

Loyall Wastewater Treatment Plant
Good Neighbor Road
Loyall, Harlan County, Kentucky

c. Description of Applicant's Operation

City

d. Design Capacity

0.185 MGD

e. Description of Existing Pollution Abatement Facilities

Treatment process consists of grinding, primary settling, activated sludge (extended aeration), secondary settling, chlorine disinfection, and dechlorination. Solids are processed by: anaerobic digestion, sludge holding tanks, and hauled to an approved facility for disposal.

f. Permitting Action

This is a reissuance of a minor KPDES permit for a municipally owned wastewater treatment plant serving a municipality.

DRAFT

2. **RECEIVING WATER**

a. Name/Mile Point

Facility discharges to Cumberland River at mile point, MP, 690.7.

b. Stream Segment Use Classification

Pursuant to 401 KAR 10:026, Section 5, Cumberland River carries the following classifications: warm water aquatic habitat, primary contact recreation, secondary contact recreation, and domestic water supply.

c. Stream Segment Categorization

Pursuant to 401 KAR 10:030, Section 1 Cumberland River is categorized as "Impaired Waters". Facility discharges to Cumberland River at River Mile Index, RMI, of 690.7. The Cumberland River from 683.6 to 694.2 is listed on Kentucky's 2008 Integrated Report to Congress on the Condition of Water Resources in Kentucky Volume II 303(d) List of Surface Waters. Impaired Use is nonsupport of swimming. Pollutants of concern are pathogens. Suspected Sources include: unknown sources, septic systems and similar decentralized systems, and storm water runoff, agriculture, and combined sewer overflows. A Total Maximum Daily Load, TMDL, was approved by the U. S. Environmental Permit Agency in July 1998. The TMDL is titled "Removing Fecal Pollution From The Upper Cumberland River Drainage". The permit issuance does not present a water quality problem and does not contribute to the impairment conditions. A properly operated wastewater treatment plant will not contribute to the impairment.

d. Stream Low Flow Condition

The 7-day, 10-year low flow and harmonic mean conditions of Cumberland River are 14 and 138 cfs, respectively.

DRAFT

3. REPORTED DISCHARGE AND PROPOSED LIMITS

Serial Number 001 – Sanitary Wastewater (Design Flow = 0.185 MGD)

Effluent Characteristics	**Reported Discharge**		**Proposed Limits**		**Applicable Water Quality Criteria and/or Effluent Guidelines**
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	
Effluent Flow (MGD)	0.052	0.336	Report	Report	401 KAR 5:065, Section 2(8)
Influent Flow (MGD)	N/A	N/A	Report	Report	401 KAR 5:065, Section 2(8)
Effluent BOD_5 (mg/l)	8.9	30	30	45	401 KAR 10:031, Section 4 401 KAR 5:045, Sections 3 and 5
Influent BOD_5 (mg/l)	163	557	Report	Report	401 KAR 5:065, Section 2(8)
Percent Removal BOD_5 (%)	92.6	99	85 or greater		40 CFR 133.102(a)(3)
Effluent TSS (mg/l)	21.1	53	30	45	401 KAR 10:031, Section 4 401 KAR 5:045, Sections 2 and 3
Influent TSS (mg/l)	83	436	Report	Report	401 KAR 10:031, Section 4
Percent Removal TSS (%)	65.3	96	85 or greater		40 CFR 133.102(b)(3)
Fecal Coliform (N/100 ml)	77	731	Removing from permit		401 KAR 5:080, Section 1(2)(c)2
Escherichia Coli (N/100 ml)	NR	NR	130	240	401 KAR 10:031, Section 7 401 KAR 5:045, Section 4 401 KAR 5:080, Section 1(2)(c)2
Ammonia Nitrogen (as mg/l N)	3.2	15.2	20.0	30.0	401 KAR 10:031, Section 4 401 KAR 5:045, Sections 3 and 5
Dissolved Oxygen (mg/l) (minimum)	2.7	7.7	Not less than 2.0		401 KAR 10:031, Section 4 401 KAR 5:045, Sections 3 and 5
pH (standard units)	6.06	7.17	6.0 (min)	9.0 (max)	401 KAR 10:031, Section 4 401 KAR 5:045, Section 4

DRAFT

3. REPORTED DISCHARGE AND PROPOSED LIMITS – SANITARY FACILTY

Serial Number 001 – Sanitary Wastewater (Design Flow = 0.185 MGD)

Effluent Characteristics	**Reported Discharge**		**Proposed Limits**		**Applicable Water Quality Criteria and/or Effluent Guidelines**
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	
Total Residual Chlorine (mg/l)	N/A	2.09	0.019	0.019	401 KAR 10:031, Section 4(k)
Total Phosphorus (mg/l)	N/A	N/A	Report	Report	401 KAR 5:065, Section 2(8)
Total Nitrogen (mg/l)	N/A	N/A	Report	Report	401 KAR 5:065, Section 2(8)

The data contained under the reported discharge columns is not from the renewal application, but rather from the analysis of the DMR data that has been reported during the term of the previous permit.

The abbreviation BOD_5 means Biochemical Oxygen Demand (5-day).
The abbreviation TSS means Total Suspended Solids.
The abbreviation NR means not reported on the Discharge Monitoring Report (DMR).
The effluent limitations for BOD_5 and TSS are Monthly (30 day) and Weekly (7 day) Averages.
The effluent limitations for *Escherichia Coli* are thirty (30) day and seven (7) day Geometric Means.
Total Nitrogen is to be reported as the summation of the analytical results for Total Nitrates, Total Nitrites, and Total Kjeldahl Nitrogen.

DRAFT

4. **METHODOLOGY USED IN DETERMINING LIMITATIONS**

a. Serial Number

Outfall 001 Sanitary Wastewater (Design Flow = 0.185 MGD)

b. Effluent Characteristics

Flow (Influent/Effluent) , BOD_5 (Influent/Effluent), TSS (Influent/Effluent), Fecal Coliform Bacteria, *Escherichia Coli*, pH, Ammonia Nitrogen, Dissolved Oxygen, Total Residual Chlorine (TRC), Total Phosphorus, and Total Nitrogen.

c. Pertinent Factors

Wastewater treatment plant is a public owned treatment works (POTW) facility. The POTW treats sanitary wastewater from residential and commercial (non-industry) users.

d. Monitoring Requirements

Influent sampling shall be conducted at the nearest accessible point in the collection system but prior to commencement of treatment.

Effluent sampling shall be conducted at the nearest point after final treatment but prior to discharge to or mixing with the receiving waters.

Effluent Flow monitoring shall be conducted continuously by recorder.

Influent Flow monitoring shall be conducted instantaneously once per week.

BOD_5 (Influent/Effluent) and TSS (Influent/Effluent) monitoring shall be conducted once per week by 24 hour composite sampling.

Percent Removal shall be determined monthly by calculation.

Ammonia Nitrogen, Total Phosphorus and Total Nitrogen shall be monitored once per week by 24 hour composite sampling.

Escherichia Coli, pH, Dissolved Oxygen and Total Residual Chlorine shall be monitored once per week by grab sample.

e. Justification of Conditions

The Kentucky regulations cited below have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes.

Escherichia Coli and Fecal Coliform Bacteria
The limits for *Escherichia Coli* are consistent with the requirements of 401 KAR 5:031, Section 7, 401 KAR 5:045 Section 4 and 401 KAR 5:080, Section 1(2)(c) 2. The removal of Fecal Coliform Bacteria is consistent with the requirements of 401 KAR 5:080k Section 1 (2) (c)2. Although Fecal Coliform Bacteria has been used as an indicator of fecal contamination, it does contain other species that are not necessarily fecal in origin. EPA recommends *Escherichia Coli*, which is specific to fecal material from warm-blooded animals, as the best indicator of health risk from contact with recreational waters. Therefore, it is the “Best Professional Judgment “BPJ” of the Division of Water that *Escherichia Coli* replace Fecal Coliform Bacteria on this permit.

Flow (Influent/Effluent)
The monitoring requirements for this parameter are consistent with the requirements of 401 KAR 5:065, Section 2(8).

4. **METHODOLOGY USED IN DETERMINING LIMITATIONS – (continued)**

Influent BOD_5, Influent TSS, and Percent Removal
The monitoring requirements for influent BOD_5 and influent TSS are consistent with the requirements of 401 KAR 5:065, Section 2(8). The raw influent values of these two parameters are necessary to determine compliance with the 85 percent removal requirement specified by 40 CFR 133.102 (a)(3) and (b)(3).

Ammonia Nitrogen, and Dissolved Oxygen
The limits for these parameters are consistent with the requirements of 401 KAR 5:031, Section 4, and 401 KAR 5:045, Sections 3 and 5. Section 4 of 5:031 establishes water quality criteria for the protection of Kentucky's waters. Section 5 of 5:045 requires biochemically degradable wastewaters to receive treatment in excess of secondary treatment if the Cabinet determines that the receiving water would not satisfy applicable water quality standards as a result of a facility discharge or discharges from multiple facilities

BOD_5 and Total Suspended Solids
The limits for these parameters are consistent with the requirements of 401 KAR 10:031, Section 4 and 5:045, Sections 2 and 3. Section 4 of 10:031 establishes water quality criteria for the protection of Kentucky's waters. Sections 2 and 3 of 5:045 require biochemically degradable wastewaters to receive secondary treatment.

pH
The limits for these parameters are consistent with the requirements of 401 KAR 5:031, Section 4 and 5:045, Section 4. Section 4 of 5:031 establishes water quality criteria for the protection of Kentucky's waters. Section 4 of 5:045 establishes the acceptable levels of these parameters for biochemically degradable wastewaters.

Total Residual Chlorine
The limits for these parameters are consistent with the requirements of 401 KAR 5:031, Section 4.

Total Phosphorus and Total Nitrogen
The monitoring requirements for these parameters are consistent with the requirements of 401 KAR 5:065, Section 2(8)(a). Total Nitrogen is TKN (as N) and nitrate/nitrite (as N).

5. **ANTIDEGRADATION**

The conditions of 401 KAR 10:029, Section 1 have been satisfied by this permit action. Since this permit action involves reissuance of an existing permit, and does not propose an expanded discharge, a review under 401 KAR 5:030 Section 1 is not applicable.

6. **PROPOSED COMPLIANCE SCHEDULE FOR ATTAINING EFFLUENT LIMITATIONS**

The permittee will comply with all effluent limitations by the effective date of the permit.

DRAFT

7. PROPOSED SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE

SLUDGE DISPOSAL

The disposal or final use of sewage sludge generated during the treatment of domestic sewage in a treatment works is subject to federal requirements specified in 40 CFR Part 503 and state requirements specified in Division of Waste Management regulations 401 KAR Chapter 45.

GENERAL PRETREATMENT REQUIREMENTS

All Publicly Owned Treatment Works (POTWs) are subject to the requirements of 401 KAR 5:057.

Publicly Owned Treatment Works (POTWs) means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a State or municipality. This definition includes any sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

Municipality means a city, village, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial waste, other wastes, or Indian tribe or authorized Indian tribal organization, or a designated and approved management agency under Section 208 of CWA.

Prohibited Discharges

Pursuant to 401 KAR 5:057, Section 3(2) the permittee is to prevent discharges by any user to the POTW which would cause pass-through or interference. Specific prohibitions include: (1) flammable or explosive pollutants; (2) corrosive pollutants; (3) amounts of solid or viscous pollutants which could cause an obstruction; (4) pollutants including oxygen demanding pollutants discharged at a flow rate or concentration which would interfere with the POTW; (5) heat in amounts which would inhibit biological activity, but no heat in quantities such that the temperature at the POTW treatment plant exceeds 104 ^{o}F (40 ^{o}C); (6) amounts of petroleum oil, non-biodegradable cutting oil or products of mineral oil origin that would cause pass through or interference; (7) pollutants which cause toxic gases, vapors, or fumes; and (8) trucked or hauled pollutants except at discharge points designated by the POTW.

Necessity to Develop and Implement a Pretreatment Program

Pursuant to Section 6(1) POTWs which meet one or more of the following criteria are required to develop, submit for approval, and implement specific Pretreatment Program Requirements.

1. A POTW or combination of POTWs operated by the same authority, with a total design flow greater than five (5) million gallons per day (MGD) and receiving from industrial users which pass through interfere with the operation of the POTW, or are otherwise subject to pretreatment standards.

2. A POTW with a design flow of five (5) MGD or less shall develop a pretreatment program if the cabinet determines that the nature or volume of the industrial wastewater, treatment process upsets, violation of the POTW effluent limitations, contamination of municipal sludge or other circumstances warrant to prevent interference with the POTW or pass through.

Consistent with the requirements of 401 KAR 5:057, Section 6(1) and 401 KAR 5:080, Section 1(2)(c)2 the permittee shall conduct annual sewer user surveys to determine if conditions warrant the development and implementation of a pretreatment program. This condition is representative of the Division of Water's "Best Professional Judgment" that such surveys are necessary to demonstrate compliance with 401 KAR 5:057, Section 6(1).

7. PROPOSED SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE

Best Management Practices (BMP) Plan

Pursuant to 401 KAR 5:065, Section 2(10), a BMP requirement shall be included: to control or abate the discharge of pollutants from ancillary areas containing toxic or hazardous substances or those substances which could result in an environmental emergency; where numeric effluent limitations are infeasible; or to carry out the purposes and intent of KRS 224. The facility has several areas where support activities occur which have a potential of the discharge of such substances through storm water runoff or spillage. Some of these areas will drain to present wastewater treatment plants, others will not.

Certified Operators

Pursuant to 401 KAR 5:010, Section 2(1) wastewater systems shall be operated under the supervision of a certified operator who holds a Kentucky Certificate equivalent to the class of system being supervised. All other operators employed by the system shall hold a Kentucky Certificate or shall be in the process of obtaining a Kentucky Certificate.

Pursuant to 401 KAR 5:010, Section 8 wastewater systems shall be classified as follows:

- Class I: Systems with a design capacity of less than or equal to 50,000 gpd
- Class II: Systems with a design capacity of more than 50,000 gpd but less than or equal to 2.0 MGD
- Class III: Systems with a design capacity of more than 2.0 MGD but less than or equal to 7.5 MGD
- Class IV: Systems with a design capacity of more than 7.5 MGD

Section 2(2) of 401 KAR 5:010 require the certified operator to be reasonably available if not physically present while the system is operating.

Section 2(3) of 401 KAR 5:010 require the Kentucky Certificate shall be displayed on the wall of wastewater system office.

Monthly Operating Reports (MOR)

Pursuant 401 KAR 5:065, Section 2(8)3 the permit shall incorporate monitoring requirements as appropriate to assure compliance with the permit limitations. In addition to the monitoring of effluent as specified by the permit the permittee shall conduct process control monitoring on a daily basis and record the data on a Monthly Operating Report (MOR) which shall be submitted with the Discharge Monitoring Reports. Process control monitoring is that monitoring performed by the operators of the wastewater treatment plant to determine if the wastewater system is operating at its optimum efficiency. This monitoring includes but is not limited to influent and effluent quality and quantity monitoring, chemical usage, sludge monitoring including volume produced, wasted, and disposed, and monitoring of internal units such as aeration basins and oxidation ditches.

Outfall Signage

As a member of ORSANCO (Ohio River Valley Sanitation Commission) the Commonwealth of Kentucky through the Division of Water implements a requirement that the permittee post a permanent marker at each discharge point to the Ohio River. It is the Best Professional Judgment of the Division of Water, 401 KAR 5:080, Section 1(2)(c)2, that all permittees post a marker at all discharge locations and/or monitoring points. The ORSANCO requirements for the marker specify it to be at least 2 feet by 2 feet in size and a minimum of 3 feet above ground level with the Permittee Name and KPDES permit and outfall numbers in 2 inch letters. For internal monitoring points the marker shall be of sufficient size to include the outfall number in 2 inch letters and is to be posted as near as possible to the actual sampling location.

DRAFT

7. PROPOSED SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE

CSO/SSO Requirements

In conjunction with Civil Action No. 07-CI-1254 the CSO/SSO Consent Judgment, the City of Loyall shall submit an annual report, in lieu of the previously submitted Combined Sewer Operational Plan (CSOP). This report will document the permittee's efforts to control and eventually eliminate combined sewer overflows (CSOs) initially permitted at Outfalls 002 through 07, as shown on map on Fact Sheet Page 11; and, Fact Sheet Page 12 listing discharge location and CSO location information.

8. PERMIT DURATION

Five (5) years. This facility is in the Tennessee/Mississippi/Cumberland Basin Management Unit as per the Kentucky Watershed Management Framework.

9. PERMIT INFORMATION

The application, draft permit, fact sheet, public notice, comments received, and additional information is available from the Division of Water at 200 Fair Oaks Lane, Frankfort, Kentucky 40601.

10. REFERENCES AND CITED DOCUMENTS

All material and documents referenced or cited in this fact sheet are a part of the permit information as described above and are readily available at the Division of Water Central Office. Information regarding these materials may be obtained from the person listed below.

11. CONTACT

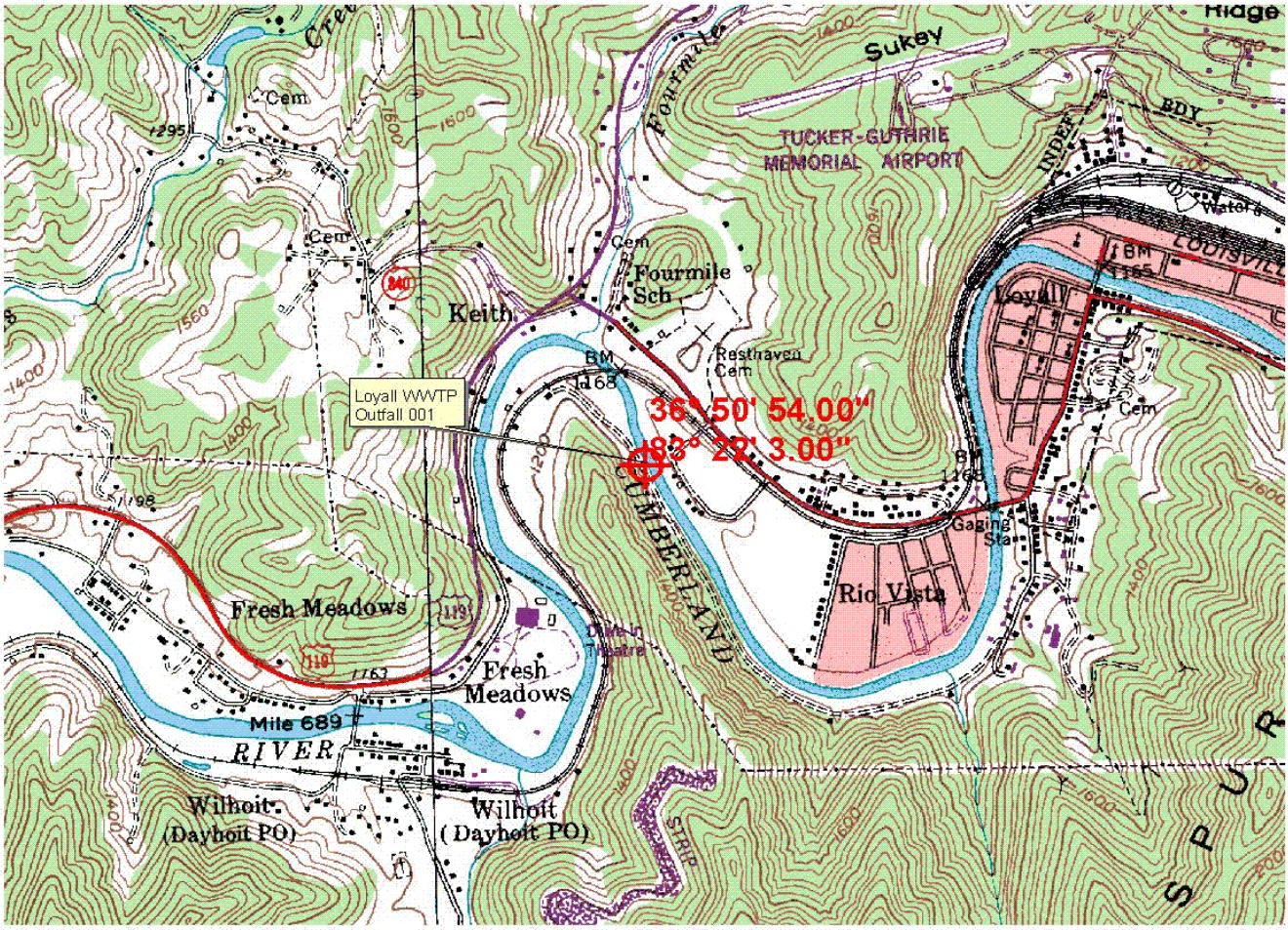
For further information on the draft permit or comment process, contact the individual identified on the Public Notice or the Permit Writer – Dan Juett at (502) 564-8158, extension 4894, or email Dan.Juett@ky.gov.

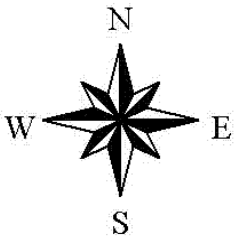
12. PUBLIC NOTICE INFORMATION

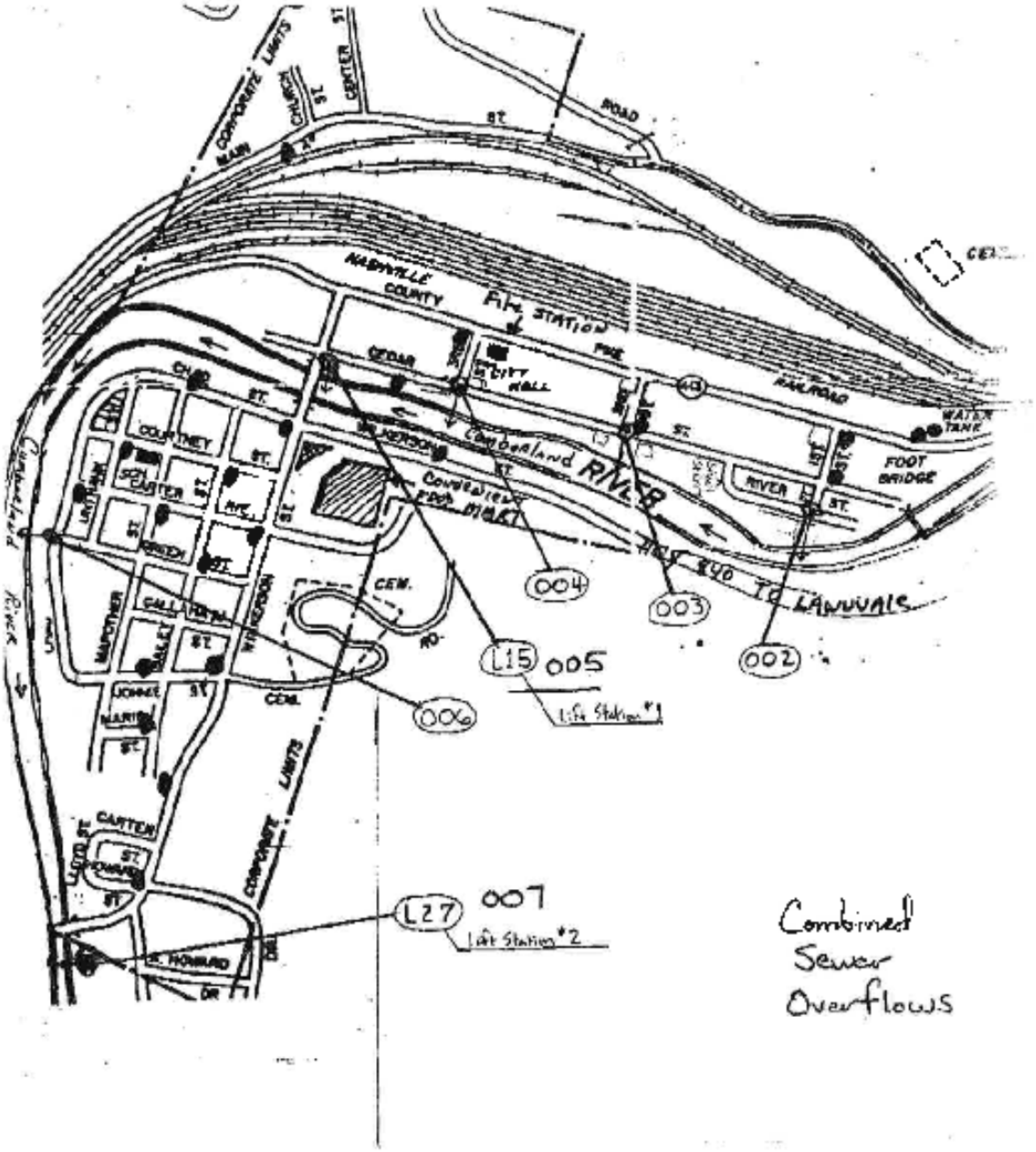
Please refer to the attached Public Notice for details regarding the procedures for a final decision, deadline for comments and other information required by 401 KAR 5:075, Section 4(2)(e).

DRAFT

City of Loyall
Loyall WWTP







RECEIVED
MAR 20 '95
KPDES BRANCH

City of Loyall

Loyall Wastewater Treatment Plant

KPDES# - KY0026115

Sewer System Overflows

Discharge Number	Location	Lat. /Long.	Receiving Water
002	River Street	36° 51′ 05″ 83° 20′ 45″	Cumberland River (RMI 692.95)
003	Cedar Street	36° 51′ 10″ 83° 20′ 50″	Cumberland River (RMI 692.8)
004	Cedar Street	36° 51′ 12″ 83° 21′ 00″	Cumberland River (RMI 692.65)
005	Wilkerson Street	36° 51′ 13″ 83° 21′ 08″	Cumberland River (RMI 692.55)
006	Chad Street	36° 51′ 06″ 83° 21′ 25″	Cumberland River (RMI 692.2)
007	Wilkerson Street	36° 50′ 45″ 83° 21′ 22″	Cumberland River (RMI 691.8)

DRAFT

KPDES

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT

PERMIT NO.: KY0026115
AI NO.: 1733

AUTHORIZATION TO DISCHARGE UNDER THE KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to Authority in KRS 224,

City of Loyall
P. O. Box 1060
Loyall, Kentucky 40854

is authorized to discharge from a facility located at

Loyall Wastewater Treatment Plant
Good Neighbor Road
Loyall, Harlan County, Kentucky

to receiving waters named

Cumberland River at mile point 690.7

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, III, and IV hereof. The permit consists of this cover sheet, and Part I 2 pages, Part II 6 pages, Part III 2 pages, and Part IV 3 pages.

This permit shall become effective on

This permit and the authorization to discharge shall expire at midnight,

Date Signed

Sandra L. Gruzesky, Director
Division of Water

DRAFT

A1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to discharge from Outfall serial number: 001 – Sanitary Wastewater (Design Flow = 0.185 MGD)

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS (lbs/day)		Other Units (Specify)		MONITORING REQUIREMENTS	
	Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.	Measurement Frequency	Sample Type
Effluent Flow (MGD)	Report	Report	N/A	N/A	Continuous	Recorder
Influent Flow (MGD)	Report	Report	N/A	N/A	1/Week	Instantaneous
Effluent BOD_5 (mg/l)	46.3	69.4	30	45	1/Week	24 Hr Composite
Influent BOD_5 (mg/l)	Report	Report	Report	Report	1/Week	24 Hr Composite
Percent Removal BOD_5 (%)	N/A	N/A	85 or greater		1/Month	Calculated
Effluent TSS (mg/l)	46.3	69.4	30	45	1/Week	24 Hr Composite
Influent TSS (mg/l)	Report	Report	Report	Report	1/Week	24 Hr Composite
Percent Removal TSS (%)	N/A	N/A	85 or greater		1/Month	Calculated
Ammonia Nitrogen (as mg/l N)	30.9	46.3	20.0	30.0	1/Week	24 Hr Composite
Escherichia Coli (N/100 ml)	N/A	N/A	130	240	1/Week	Grab
Dissolved Oxygen (mg/l) (minimum)	N/A	N/A	Not less than 2.0		1/Week	Grab
pH (standard units)	N/A	N/A	6.0 (min)	9.0 (max)	1/Week	Grab
Total Residual Chlorine (mg/l)	N/A	N/A	0.019	0.019	1/Week	Grab
Total Phosphorus (mg/l)	N/A	N/A	Report	Report	1/Week	24 Hr Composite
Total Nitrogen (mg/l)	N/A	N/A	Report	Report	1/Week	24 Hr Composite

The abbreviation BOD_5 means Biochemical Oxygen Demand (5-day).
The abbreviation TSS means Total Suspended Solids.
The abbreviation N/A means Not Applicable.
The effluent limitations for BOD_5 and TSS are Monthly (30 day) and Weekly (7 day) Averages.
The effluent limitations for *Escherichia Coli* are thirty (30) day and seven (7) day Geometric Means.
Total Nitrogen is to be reported as the summation of the analytical results for Total Nitrates, Total Nitrites, and Total Kjeldahl Nitrogen.
There shall be no discharge of floating solids or visible foam or sheen in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: nearest accessible point prior to discharge to or mixing with the receiving waters or wastestreams from other outfalls.

DRAFT

B. SCHEDULE OF COMPLIANCE

The permittee shall achieve compliance with all requirements on the effective date of this permit.

DRAFT

STANDARD CONDITIONS FOR KPDES PERMIT

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.

It is the responsibility of the permittee to demonstrate compliance with permit parameter limitations by utilization of sufficiently sensitive analytical methods.

The following KPDES permit conditions apply to all discharges authorized by this permit pursuant to 401 KAR 5:065, Section 1.

(1) Duty to comply.

(a) General requirement.

The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of KRS Chapter 224, among which shall be the following remedies: enforcement action, permit revocation, revocation and reissuance, or modification; or denial of a permit renewal application.

(b) Specific duties.

1. The permittee shall comply with effluent standards or prohibitions established under 40 CFR Part 129 as of July 1, 2001, as adopted without change, within the time provided in the federal regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

2. Any person who violates a permit condition as set forth in the KPDES administrative regulations shall be subject to penalties under KRS 224.99-010(1) and (4).

(2) Duty to reapply.

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit as required in 401 KAR 5:060, Section 1.

(3) Need to halt or reduce activity not a defense.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(4) Duty to mitigate.

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(5) Proper operation and maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control and related appurtenances which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also shall include adequate laboratory controls, and appropriate quality assurance procedures. This provision shall require the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only if the operation is necessary to achieve compliance with the conditions of the permit.

DRAFT

(6) Permit actions.

The permit may be modified, revoked and reissued, or revoked for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or a notification of planned changes or anticipated noncompliance, shall not stay any permit condition.

(7) Property rights.

This permit shall not convey any property rights of any kind, or any exclusive privilege.

(8) Duty to provide information.

The permittee shall furnish to the cabinet, within a reasonable time, any information which the cabinet may request to determine whether cause exists for modifying, revoking and reissuing, or revoking this permit, or to determine compliance with this permit. The permittee shall also furnish to the cabinet, upon request, copies of records required to be kept by this permit.

(9) Inspection and entry.

The permittee shall allow the cabinet, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records pertinent to the KPDES program are or may be kept;

(b) Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of this permit;

(c) Inspect at reasonable times any facilities, equipment, including monitoring and control equipment, practices, or operations regulated or required under this permit; and

(d) Sample or monitor at reasonable times, for the purposes of assuring KPDES program compliance or as otherwise authorized by KRS Chapter 224, any substances or parameters at any location.

(10) Monitoring and records.

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report, or application. This period may be extended by request of the cabinet at any time.

(c) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The individuals who performed the sampling or measurements;
3. The dates analyses were performed;
4. The individuals who performed the analyses;
5. The analytical techniques or methods used; and
6. The results of the analyses.

(d) Monitoring shall be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.

DRAFT

(e) Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be subject to penalties under KRS 224.99-010(4).

(11) Signatory requirement.

All applications, reports, or information submitted to the cabinet shall be signed and certified as indicated in 401 KAR 5:060, Section 9. Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties under KRS 224.99-010(4).

(12) Reporting requirements.

(a) Planned changes.

The permittee shall give notice to the cabinet as soon as possible of any planned physical alteration or additions to the permitted facility. Notice shall be required only if:

1. The alteration or addition to a permitted facility may meet one (1) of the criteria for determining whether a facility is a new source in 401 KAR 5:080, Section 5; or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification only applies to pollutants which are subject either to effluent limitations in the permit, or to notification requirements under 401 KAR 5:080, Section 5.

(b) Anticipated noncompliance.

The permittee shall give advance notice to the cabinet of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Transfers.

The permit shall not be transferable to any person except after notice to the cabinet. The cabinet may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate other requirements as may be necessary under KRS Chapter 224.

(d) Monitoring reports.

Monitoring results shall be reported at the intervals specified in the permit. Monitoring results shall be reported as follows:

1. Monitoring results shall be reported on a Discharge Monitoring Report (DMR).

2. If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136 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 DMR.

3. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the cabinet in the permit.

(e) Compliance schedules.

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.

DRAFT

(f) Twenty-four (24) hour reporting.

The permittee shall follow the provisions of 401 KAR 5:015 and shall orally report any noncompliance which may endanger health or the environment, within twenty-four (24) hours from the time the permittee becomes aware of the circumstances. This report shall be in addition to and not in lieu of any other reporting requirement applicable to the noncompliance. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The cabinet may waive the written report on a case-by-case basis if the oral report has been received within twenty-four (24) hours. The following shall be included as events which shall be reported within twenty-four (24) hours:

1. Any unanticipated bypass which exceeds any effluent limitation in the permit, as indicated in subsection (13) of this section.
2. Any upset which exceeds any effluent limitation in the permit.
3. Violation of a maximum daily discharge limitation for any of the pollutants listed by the cabinet in the permit to be reported within twenty-four (24) hours, as indicated in Section 2(7) of this administrative regulation.

(g) Other noncompliance.

The permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this subsection, when monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this subsection.

(h) Other information.

Where the permittee becomes aware that it failed to submit any relevant fact in a permit application, or submitted incorrect information in a permit application or in any report to the cabinet, it shall promptly submit these facts or information.

(13) Occurrence of a bypass.

(a) Bypass not exceeding limitations.

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. This type of bypass shall not be subject to the provisions of paragraphs (b) and (c) of this subsection.

(b) Notice.

1. Anticipated bypass.

If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass. Compliance with this requirement constitutes compliance with 401 KAR 5:015, Section 1.
2. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in subsection (12)(f) of this section, twenty-four (24) hour notice. Compliance with this requirement constitutes compliance with 401 KAR 5:015, Section 4.

DRAFT

(c) Prohibition of a bypass.

1. Bypassing shall be prohibited, and the cabinet may take enforcement action against a permittee for bypass, unless:

a. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition shall not be satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. The permittee submitted notices as required under paragraph (b) of this subsection.

2. The cabinet may approve an anticipated bypass, after considering its adverse effects, if the cabinet determines that it will meet the three (3) conditions listed in subparagraph 1a, b, and c of this paragraph.

(14) Occurrence of an upset.

(a) Effect of an upset.

An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of paragraph (b) of this subsection are met.

(b) Conditions necessary for a demonstration of an upset.

A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the permittee can identify the causes of the upset;
2. The permitted facility was at the time being properly operated;
3. The permittee submitted notice of the upset as required in subsection (12)(f) of this section; and
4. The permittee complied with any remedial measures required under subsection (4) of this section.

(c) Burden of proof.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset shall have the burden of proof.

DRAFT

(15) Additional conditions applicable to specified categories of KPDES permits.

The following conditions, in addition to others set forth in this administrative regulation, shall apply to all KPDES permits within the categories specified below:

(a) Existing manufacturing, commercial, mining, and silvicultural dischargers.

In addition to the reporting requirements under subsections (12), (13), and (14) of this section, any existing manufacturing, commercial, mining, and silvicultural discharger shall notify the cabinet as soon as it knows or has reason to know:

1. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"

a. 100 micrograms per liter (100 μg/l);

b. 200 micrograms per liter (200 μg/l) for acrolein and acrylonitrile; 500 micrograms per liter (500 μg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one (1) milligram per liter (1 mg/1) for antimony;

c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 401 KAR 5:060, Section 2(7);

d. The level established by the cabinet in accordance with Section 2(6) of this administrative regulation.

2. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"

a. 500 micrograms per liter (500 μg/l);

b. One (1) milligram per liter (1 mg/l) for antimony;

c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 401 KAR 5:060, Section 2(7); or

d. The level established by the cabinet in accordance with Section 2(6) of this administrative regulation.

(b) POTWs.

1. POTWs shall provide adequate notice to the cabinet of the following:

a. Any new introduction of pollutants into that POTW from an indirect discharger which would be subject to the KPDES administrative regulations if it were directly discharging those pollutants; or

b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

2. For purposes of this paragraph, adequate notice shall include information on the quality and quantity of effluent introduced into the POTWs and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

DRAFT

PART III

OTHER REQUIREMENTS

A. Reporting of Monitoring Results

Monitoring results obtained during each monitoring period must be reported on a preprinted Discharge Monitoring Report (DMR) Form that will be mailed to you. The completed DMR for each monitoring period must be sent to the Division of Water at the address listed below (with a copy to the appropriate Regional Office) postmarked no later than the 28th day of the month following the monitoring period for which monitoring results were obtained.

Division of Water London Regional Office 875 South Main Street London, Kentucky 40741 ATTN: Supervisor	Division of Water Surface Water Permits Branch Permit Support Section 200 Fair Oaks Lane Frankfort, Kentucky 40601

B. Reopener Clause

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under 401 KAR 5:050 through 5:086, if the effluent standard or limitation so issued or approved:

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

2. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of KRS Chapter 224 when applicable.

C. Sludge Disposal

The disposal or final use of sewage sludge generated during the treatment of domestic sewage in a treatment works shall be disposed of in accordance with federal requirements specified in 40 CFR Part 503 and state requirements specified in Division of Waste Management regulations 401 KAR Chapter 45.

D. Certified Operators

This wastewater system shall be operated under the supervision of a Class II Kentucky Certified Operator who shall be reasonably available at all times. All other operators employed by the system shall hold a Kentucky Certificate or shall be in the process of obtaining a Kentucky Certificate. The certificates of each operator shall be prominently displayed on the wall of the system office.

E. Monthly Operating Reports

In addition to the monitoring of effluent as specified by the permit the permittee shall conduct process control monitoring on a daily basis and record the data on a Monthly Operating Report (MOR) which shall be submitted with the Discharge Monitoring Reports. Process control monitoring is that monitoring performed by the operators of the wastewater treatment plant to determine if the wastewater system is operating at its optimum efficiency. This monitoring includes but is not limited to influent and effluent quality and quantity monitoring, chemical usage, sludge monitoring including volume produced, wasted, and disposed, and monitoring of internal units such as aeration basins and oxidation ditches.

DRAFT

F. Outfall Signage

The permittee shall post a permanent marker at all discharge locations and/or monitoring points. The marker shall be at least 2 feet by 2 feet in size and a minimum of 3 feet above ground level with the Permittee Name and KPDES permit and outfall numbers in 2 inch letters. For internal monitoring points the marker shall be of sufficient size to include the outfall number in 2 inch letters and shall be posted as near as possible to the actual sampling location.

G. Necessity to Develop and Implement a Pretreatment Program

POTWs which meet one or more of the following criteria are required to develop, submit for approval, and implement specific Pretreatment Program Requirements.

A POTW or combination of POTWs operated by the same authority, with a total design flow greater than five (5) million gallons per day (MGD) and receiving from industrial users which pass through interfere with the operation of the POTW, or are otherwise subject to pretreatment standards.

A POTW with a design flow of five (5) MGD or less shall develop a pretreatment program if the cabinet determines that the nature or volume of the industrial wastewater, treatment process upsets, violation of the POTW effluent limitations, contamination of municipal sludge or other circumstances warrant to prevent interference with the POTW or pass through.

The permittee shall conduct annual sewer user surveys to determine if conditions warrant the development and implementation of a pretreatment program. An annual report listing the industrial users, the manufacturing processes, the nature and volume of flow and any problems caused by the users shall be submitted no later than December 31 of each year, unless otherwise specified by the Division of Water.

H. Prohibited Discharges

The following are prohibit from being discharged to the POTW.

Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW);

Pollutants which will cause corrosive structural damage to the POTW, but in no case, discharges with a pH lower than 5.0;

Solid or viscous pollutants in amounts which will cause obstruction to the flow in sewers, or other interference with operation of the POTW;

Any pollutant, including oxygen demanding pollutants (BOD_5, etc.), released in a discharge at such a volume or strength as to cause interference in the POTW;

Heat in amounts, which will inhibit biological activity in the POTW, but in no case, heat in such quantities that the influent to the sewage treatment works exceeds 104° F (40° C);

Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass-through;

Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and,

Any trucked or hauled waste except, at discharge points designated by the POTW.

DRAFT

PART IV

BEST MANAGEMENT PRACTICES

SECTION A. GENERAL CONDITIONS

1. Applicability

These conditions apply to all permittees who use, manufacture, store, handle, or discharge any pollutant listed as: (1) toxic under Section 307(a)(1) of the Clean Water Act; (2) oil, as defined in Section 311(a)(1) of the Act; (3) any pollutant listed as hazardous under Section 311 of the Act; or (4) is defined as a pollutant pursuant to KRS 224.01-010(35) and who have ancillary manufacturing operations which could result in (1) the release of a hazardous substance, pollutant, or contaminant, or (2) an environmental emergency, as defined in KRS 224.01-400, as amended, or any regulation promulgated pursuant thereto (hereinafter, the "BMP pollutants"). These operations include material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas.

2. BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) plan consistent with 401 KAR 5:065, Section 2(10) pursuant to KRS 224.70-110, which prevents or minimizes the potential for the release of "BMP pollutants" from ancillary activities through plant site runoff; spillage or leaks, sludge or waste disposal; or drainage from raw material storage. A Best Management Practices (BMP) plan will be prepared by the permittee unless the permittee can demonstrate through the submission of a BMP outline that the elements and intent of the BMP have been fulfilled through the use of existing plans such as the Spill Prevention Control and Countermeasure (SPCC) plans, contingency plans, and other applicable documents.

3. Implementation

If this is the first time for the BMP requirement, then the plan shall be developed and submitted to the Division of Water within 90 days of the effective date of the permit. Implementation shall be within 180 days of that submission. For permit renewals the plan in effect at the time of permit reissuance shall remain in effect. Modifications to the plan as a result of ineffectiveness or plan changes to the facility shall be submitted to the Division of Water and implemented as soon as possible.

4. General Requirements

The BMP plan shall:

a. Be documented in narrative form, and shall include any necessary plot plans, drawings, or maps.

b. Establish specific objectives for the control of toxic and hazardous pollutants.

(1) Each facility component or system shall be examined for its potential for causing a release of "BMP pollutants" due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.

(2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g., precipitation), or other circumstances which could result in a release of "BMP pollutants," the plan should include a prediction of the direction, rate of flow, and total quantity of the pollutants which could be released from the facility as result of each condition or circumstance.

c. Establish specific Best Management Practices to meet the objectives identified under paragraph b of this section, addressing each component or system capable of causing a release of "BMP pollutants."

d. Include any special conditions established in part b of this section.

e. Be reviewed by plant engineering staff and the plant manager.

5. Specific Requirements

The plan shall be consistent with the general guidance contained in the publication entitled "NPDES Best Management Practices Guidance Document," and shall include the following baseline BMPs as a minimum.

a. BMP Committee
b. Reporting of BMP Incidents
c. Risk Identification and Assessment
d. Employee Training
e. Inspections and Records
f. Preventive Maintenance
g. Good Housekeeping
h. Materials Compatibility
i. Security
j. Materials Inventory

6. SPCC Plans

The BMP plan may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the Act and 40 CFR Part 151, and may incorporate any part of such plans into the BMP plan by reference.

7. Hazardous Waste Management

The permittee shall assure the proper management of solid and hazardous waste in accordance with the regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1978 (RCRA) (40 U.S.C. 6901 et seq.) Management practices required under RCRA regulations shall be referenced in the BMP plan.

8. Documentation

The permittee shall maintain a description of the BMP plan at the facility and shall make the plan available upon request to NREPC personnel. Initial copies and modifications thereof shall be sent to the following addresses when required by Section 3:

Division of Water
London Regional Office
875 South Main Street
London, Kentucky 40741
ATTN: Supervisor

Division of Water
Surface Water Permits Branch
Permit Support Section
200 Fair Oaks Lane
Frankfort, Kentucky 40601

DRAFT

9. BMP Plan Modification

The permittee shall amend the BMP plan whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in the release of "BMP pollutants."

10. Modification for Ineffectiveness

If the BMP plan proves to be ineffective in achieving the general objective of preventing the release of "BMP pollutants," then the specific objectives and requirements under paragraphs b and c of Section 4, the permit, and/or the BMP plan shall be subject to modification to incorporate revised BMP requirements. If at any time following the issuance of this permit the BMP plan is found to be inadequate pursuant to a state or federal site inspection or plan review, the plan shall be modified to incorporate such changes necessary to resolve the concerns.

SECTION B. SPECIFIC CONDITIONS

Periodically Discharged Wastewaters Not Specifically Covered By Effluent Conditions
The permittee shall include in this BMP plan procedures and controls necessary for the handling of periodically discharged wastewaters such as intake screen backwash, meter calibration, fire protection, hydrostatic testing water, water associated with demolition projects, etc.

DRAFT