ERNIE FLETCHER
GOVERNOR

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
14 REILLY ROAD
FRANKFORT, KENTUCKY 40601-1190
www.kentucky.gov

LAJUANA S. WILCHER
SECRETARY

SEP 2 9 2006

Re: MSD West County
KPDES No.: KY0078956
AI No.: 2163
Activity No.: 20020022
Jefferson County, Kentucky

Dear Commenter:

Your comments, and the comments of others, concerning the above-referenced draft permit have been reviewed and responses prepared in accordance with Kentucky Pollutant Discharge Elimination System (KPDES) regulation 401 KAR 5:075, Section 12. The comments have been briefly described below and our responses to those comments follow:

COMMENT 1: A number of commenters objected to the increased capacity of the plant, citing concerns related to odors, noise, fly infestation, health problems, property values, and buffer zones.

RESPONSE 1: The Division of Water recognizes the commenters concerns. However, the authority of KPDES permit does not extend to these areas. The local governmental agencies and the permittee are the entities which have the ability to address the commenters concerns in these areas.

COMMENT 2: MSD indicated that expansion was completed and requested references to a two-phase permit be removed. MSD also noted that the Fact Sheet and permit were not consistent in regards to the ammonic limitation. Furthermore, the Fact Sheet referred to storm sewer overflows on page 2, item 2.6, when it should be sanitary sewer.

RESPONSE 2: The permit and the Fact Sheet have been modified to remove the 2-phase layout and to reflect the fact that the improved plant has reached operation status.

COMMENT 3: Fact Sheet, Page 3, Proposed Limits should reflect the 30 MGD plant and the proposed limit for Ammonia should be changed to 30 mg/l to agree with the permit.

RESPONSE 3: The Division of Water has the appropriate changes to the Fact Sheet and permit. The Fact Sheet has been modified to 30 mg/l limit, consistent with the permit.

COMMENT 4: Total Recoverable Silver should be removed from additional monitoring as a reasonable potential pollutant. MSD has three years of data showing that this pollutant is below the 70% trigger for additional monitoring.

RESPONSE 4: The Division of Water has re-evaluated the available data and concurs that Total Recoverable Silver can be removed from the permit.

COMMENT 5: MSD believes that the Page I-5 can be removed from the permit as it is unnecessary to the sludge being transported to MSD Morris Forman.

RESPONSE 5: The Division of Water disagrees and page I-5 shall remain in the permit.

Any person aggrieved by the issuance of a permit final decision may demand a hearing pursuant to KRS 224.10-420(2) within thirty (30) days from the date of the issuance of this letter. Any demand for a hearing on the permit shall be filed in accordance with the procedures specified in KRS 224.10-420, 224.10-440, 224.10-470, and the regulations promulgated thereto. The request for hearing should be submitted in writing to the Environmental and Public Protection Cabinet, Office of Administrative Hearings, 35-36 Fountain Place, Frankfort, Kentucky 40601 and the Commonwealth of Kentucky, Environmental and Public Protection Cabinet, Division of Water, 14 Reilly Road, Frankfort, Kentucky 40601. For your record keeping purposes, it is recommended that these requests be sent by certified mail. The written request must conform to the appropriate statutes referenced above.

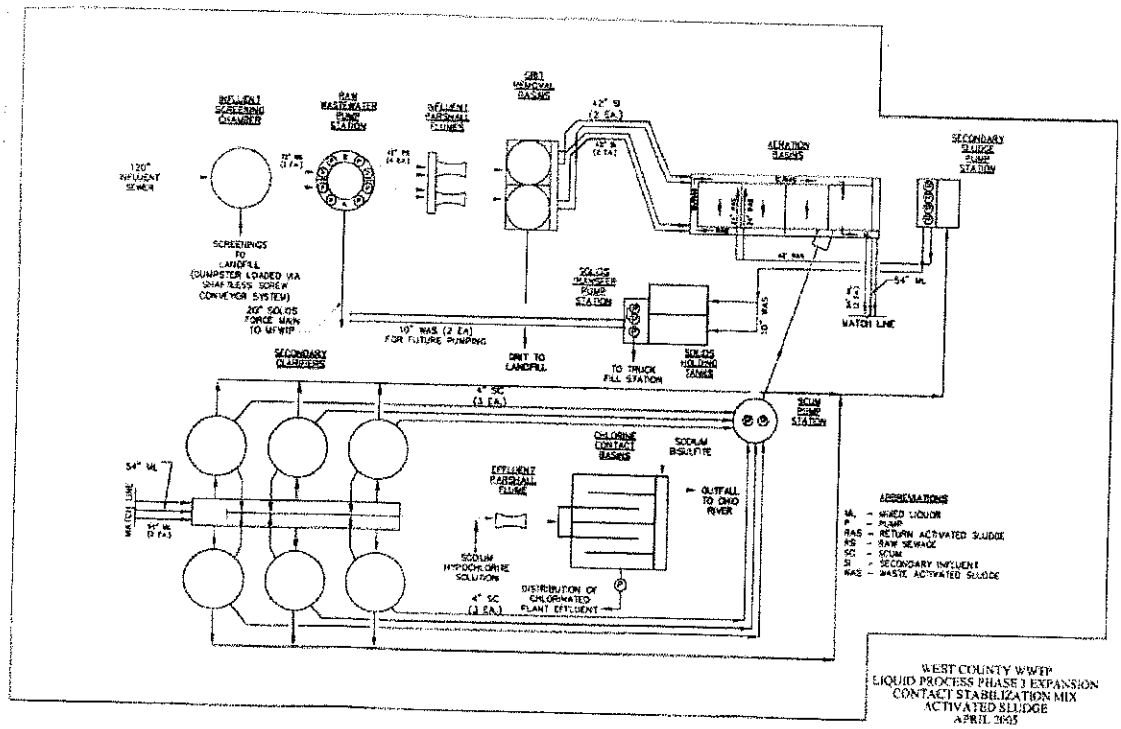
If you have any questions regarding these responses, please contact Barry Elmore, KPDES Branch, at (502) 564-2225, extension 459.

Further information on procedures and legal matters pertaining to the hearing request may be obtained by contacting the Office of Administrative Hearings at (502) 564-7312.

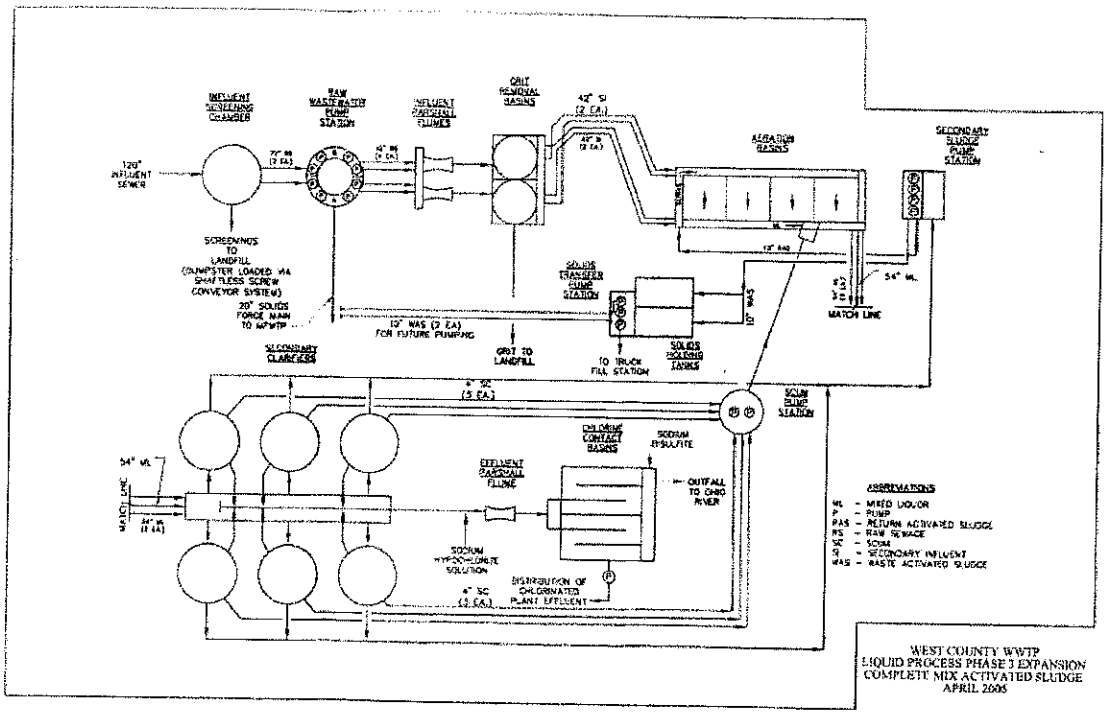
Sincerely,

for David W. Morgan, Director
Division of Water

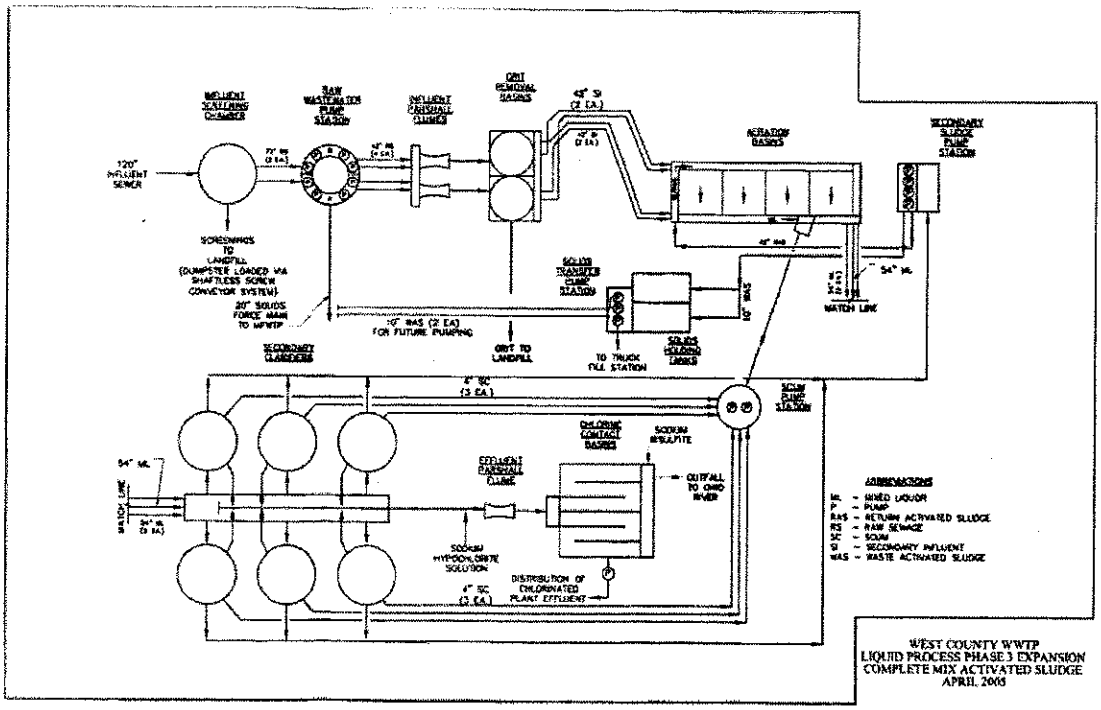
DWM:BE:jm



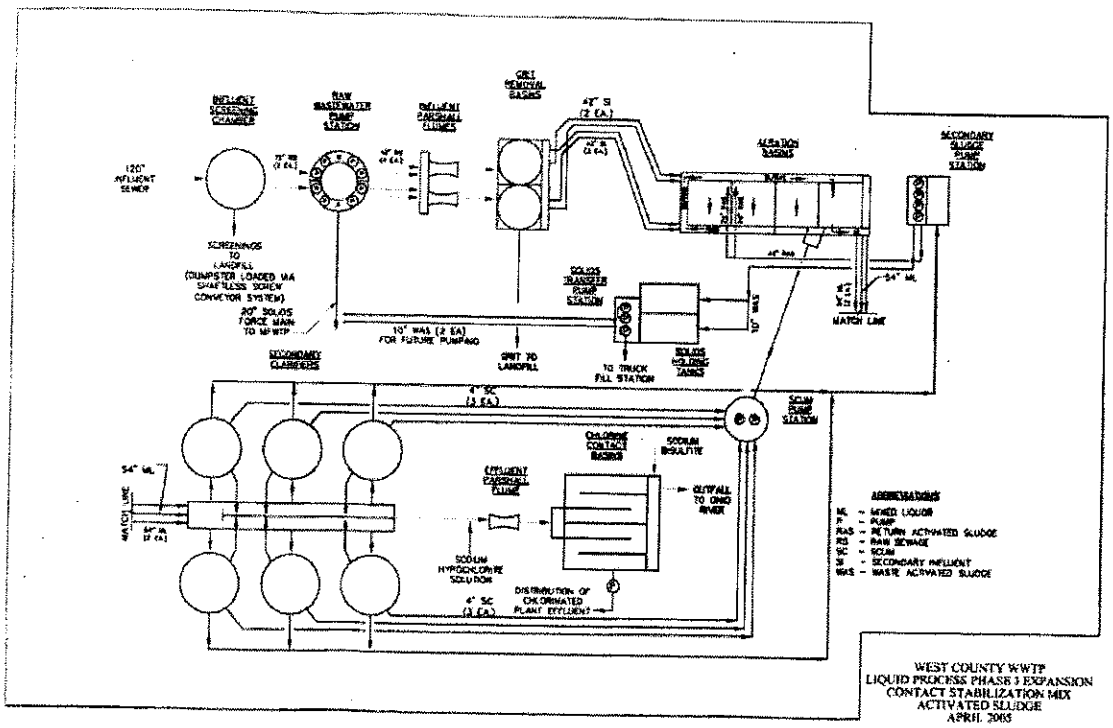
WEST COUNTY WWTP
LIQUID PROCESS PHASE I EXPANSION
CONTACT STABILIZATION MIX
ACTIVATED SLUDGE
APRIL 2005



WEST COUNTY WWTP
LIQUID PROCESS PHASE 3 EXPANSION
COMPLETE MIX ACTIVATED SLUDGE
APRIL 2005



WEST COUNTY WWTP
LIQUID PROCESS PHASE 3 EXPANSION
COMPLETE MIX ACTIVATED SLUDGE
APRIL 2005



WEST COUNTY WWTP
LIQUID PROCESS PHASE I EXPANSION
CONTACT STABILIZATION MIX
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LAJUANA S. WILCHER
SECRETARY

SEP 29 2006

Mr. H. J. Schardein
Louisville and Jefferson County
Metropolitan Sewer District
700 West Liberty Street
Louisville, Kentucky 40203-1911

Re: West County Wastewater Treatment Plant
KPDES No.: KY0078956
Jefferson County, Kentucky

Dear Mr. Schardein:

Enclosed is the Kentucky Pollutant Discharge Elimination System (KPDES) permit for the above-referenced facility. This action constitutes a final permit issuance under 401 KAR 5:075, pursuant to KRS 224.16-050.

This permit will become effective on the date indicated in the attached permit provided that no request for adjudication is granted. All provisions of the permit will be effective and enforceable in accordance with 401 KAR 5:075, unless stayed by the Hearing Officer under Sections 11 and 13.

Any demand for a hearing on the permit shall be filed in accordance with the procedures specified in KRS 224.10-420, 224.10-440, 224.10-470 and any regulations promulgated thereto. Any person aggrieved by the issuance of a permit final decision may demand a hearing, pursuant to KRS 224.10-420(2), within thirty (30) days from the date of the issuance of this letter. Two (2) copies of request for hearing should be submitted in writing to the Environmental and Public Protection Cabinet, Office of Administrative Hearings, 35-36 Fountain Place, Frankfort, Kentucky 40601 and the Commonwealth of Kentucky, Environmental and Public Protection Cabinet, Division of Water, 14 Reilly Road, Frankfort, Kentucky 40601. For your record keeping purposes, it is recommended that these requests be sent by certified mail. The written request must conform to the appropriate statutes referenced above.

If you have any questions regarding the KPDES decision, please contact Courtney Seitz, Inventory and Data Management Section, KPDES Branch, at (502) 564-2225, extension 465.

Further information on procedures and legal matters pertaining to the hearing request may be obtained by contacting the Office of Administrative Hearings at (502) 564-7312.

Sincerely,

David W. Morgan, Director
Division of Water

DWM:NG:ng
Enclosure
c: ORSANCO
U.S. EPA Region IV
Indiana EPA
Louisville Regional Office
Division of Water Files

KPDES

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT

PERMIT NO.: KY0078956
AI NO.: 2163

AUTHORIZATION TO DISCHARGE UNDER THE KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to Authority in KRS 224,

Louisville and Jefferson County
Metropolitan Sewer District
700 West Liberty Street
Louisville, Kentucky 40203-1911

is authorized to discharge from a facility located at

West County Wastewater Treatment Plant
11621 Lower River Road
Louisville, Jefferson County, Kentucky

to receiving waters named

Ohio River at mile point 358.1 (COE river mile 623.3)

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 5 pages, Part II 4 pages, Part III 1 page, and Part IV 3 pages

This permit shall become effective on NOV 1 2006

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

OCT 3 1 2011

SEP 2 9 2006
Date Signed

David W. Morgan, Director
Division of Water

Lloyd R. Cress
Commissioner

A. 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, Municipal Discharge.

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

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS lbs/day		DISCHARGE LIMITATIONS Other Units (Specify)		MONITORING REQUIREMENTS		
	Monthly Avg.	Weekly Avg.	Monthly Avg.	Weekly Avg.	Measurement Frequency	Sample Type	Sampling Location
Flow, Design (30 mgd)	N/A	N/A	Report	Report*	Continuous	Continuous	Influent & Effluent
Biochemical Oxygen Demand (5-day)	7506	11259	30 mg/l	45 mg/l	1/day	Composite	Influent & Effluent
Total Suspended Solids	7506	11259	30 mg/l	45 mg/l	1/day	Composite	Influent & Effluent
Fecal Coliform Bacteria, N/100	N/A	N/A	200	400	1/day	Grab	Effluent
Ammonia (as N)	5004	7506	20 mg/l	30 mg/l	1/day	Composite	Influent & Effluent
Phosphorus (as P)	Report	Report	N/A	N/A	1/wk	Composite	Effluent
TKN (as N)	Report	Report	N/A	N/A	1/wk	Composite	Effluent
Dissolved Oxygen shall not be less than 2 mg/l					1/day	Grab	Effluent
Total Residual Chlorine (TRC)	N/A	N/A	0.019	0.019 mg/l*	1/day	Grab	Effluent
Toxicity, Acute (T_{ua})				1.00* T_{ua}	1/QTR	Composite	Effluent

In addition to the specified limits, the monthly average effluent BOD_5 and suspended solids concentration shall not exceed 15% of the respective monthly average influent concentration (85% removal).
The pH of the effluent shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per day by grab sample.
There shall be no discharge of floating solids or visible foam in other than trace amounts.
The effluent shall not cause a visible sheen on the receiving water.

* Daily maximum limitation

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUATION)

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, Municipal Discharge.

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

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS lbs/day		DISCHARGE LIMITATIONS Other Units (Specify)		MONITORING REQUIREMENTS		
	Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.	Measurement Frequency	Sample Type	Sampling Location
Copper, Total Recoverable	N/A	N/A	Report	Report	1/Quarter*	Composite	Effluent
Lead, Total Recoverable	N/A	N/A	Report	Report	1/Quarter*	Composite	Effluent
Zinc, Total Recoverable	N/A	N/A	Report	Report	1/Quarter*	Composite	Effluent
Hardness as Calcium Carbonate ($CaCO_3$)	N/A	N/A	Report	Report	1/Quarter	Composite	Effluent
Cadmium, Total Recoverable	N/A	N/A	Report	Report	1/Quarter*	Composite	Effluent
Hexavalent Chromium,	N/A	N/A	Report	Report	1/Month	Composite	Effluent

* Monitoring shall be done in conjunction with biomonitoring. The quarterly monitoring for these pollutants shall be concurrent with the monthly monitoring for Hexavalent Chromium.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUATION)

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to administer a pretreatment program.

The permittee shall monitor the influent and effluent as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS mg/l		MONITORING REQUIREMENTS		
	Monthly Avg.	Daily Max.	Measurement Frequency	Sample Type	Sampling Location
Arsenic, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Cadmium, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Chloride	Report	Report	1/Year	Composite	Influent & Effluent
Chromium, Hexavalent	Report	Report	1/Year	Composite	Influent & Effluent
Chromium, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Copper, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Cyanide, Free (Amenable)	Report	Report	1/Year	Grab	Influent & Effluent
Iron, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Lead, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Mercury, Total Recoverable	Report	Report	1/Year	Grab	Influent & Effluent
Nickel, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Oil & Grease	Report	Report	1/Year	Grab	Influent & Effluent
Phenols, Total	Report	Report	1/Year	Grab	Influent & Effluent
Phosphorus (as P)	Report	Report	1/Year	Composite	Influent & Effluent
Selenium, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Silver, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Zinc, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUATION)

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to administer a pretreatment program.

The permittee shall monitor the sludge as specified below:

The permittee shall request a permit modification before switching from off-site sludge treatment of West County sludge at the Morris Forman WWTP.

The permittee shall utilize the sludge monitoring results from Morris Forman as a basis for all applicable local limits applied to dischargers subject to the pretreatment program. Effluent and Influent data used for local limits shall be based on data from West County.

B. SCHEDULE OF COMPLIANCE

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

STANDARD CONDITIONS FOR KPDES PERMIT

The permittee is also advised that all KPDES permit conditions in KPDES Regulation 401 KAR 5:065, Section 1 will apply to all discharges authorized by this 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.

SPECIAL POTW REQUIREMENTS

NOTE: The following requirements apply only to Publicly-Owned Treatment Works.

SLUDGE DISPOSAL

Sludge shall be disposed of in accordance with 40 CFR Part 503 and 401 KAR 45.

PROHIBITIVE DISCHARGES

Under no circumstances shall the permittee allow discharge of the following into the system:

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

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

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

d. 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;

e. 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);

f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

g. 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,

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

PRETREATMENT

A. Program Requirements

1. The permittee shall be responsible for the performance of all pretreatment requirements contained in 401 KAR 5:057, Section 6 and pursuant to 40 CFR Part 403, and shall be subject to enforcement actions, penalties, fines, and other remedies by the state, as provided in the Clean Water Act (hereafter the "Act"). The permittee shall implement and enforce its approved POTW pretreatment program. The permittee's approved POTW pretreatment program is hereby made an enforceable condition of this permit. The state may initiate enforcement action against a POTW and against an industrial user for noncompliance with applicable standards and requirements as provided in KRS 224.16-050(1), 224.70-110, and 224.73-120, and pursuant to the Act.

2. The permittee shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d), and 402(b) of the Act. The permittee shall cause industrial users subject to federal categorical standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge.

3. The permittee shall perform the pretreatment functions as required in 401 KAR 5:057, Section 6 and 40 CFR Part 403 including, but not limited to:

   a. Implement the necessary legal authorities as provided in 401 KAR 5:057, Section 6(4)(a). This includes, among other things, the authority to:

      (1) Deny or condition new or increased contributions of pollutants or changes in the nature of pollutants (401 KAR 5:057, Section 6(4)(a)(1));
      (2) Require compliance with applicable pretreatment standards (401 KAR 5:057, Section 6(4)(a)(2));
      (3) Control through permit to ensure compliance (401 KAR 5:057, Section 6(4)(a)(3));
      (4) Require the development of compliance schedules and submission of reports (401 KAR 5:057, Section 6(4)(a)(4));
      (5) Carry out inspection, surveillance, and monitoring procedures (401 KAR 5:057, Section 6(4)(a)(5));
      (6) Obtain remedies for noncompliance by industrial users (401 KAR 5:057, Section 6(4)(a)(6)).

   b. Implement the programmatic functions as provided in 401 KAR 5:057, Section 6(4)(b). This includes:

      (1) An industrial waste survey (401 KAR 5:057, Section 6(4)(b)(1 and 2));
      (2) Notification of appropriate federal, state and/or local standards or limitations (401 KAR 5:057, Section 6(4)(b)(3));
      (3) Receipt and analysis of self-monitoring reports and other notices, (401 KAR 5:057, Section 6(4)(b)(4));
      (4) POTW compliance sampling and analysis (401 KAR 5:057, Section 6(4)(b)(5));
      (5) Noncompliance investigations and enforcement (401 KAR 5:057, Section 6(4)(b)(6));
      (6) Public participation (401 KAR 5:057, Section 6(4)(b)(7)).

   c. Provide the required funding, equipment, and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3) and 403.9(b)(4).

4. The permittee shall adopt and enforce local limits that will protect the treatment works against interference, pass-through, and sludge contamination. Local limits shall be revised as necessary by the permittee as provided in 40 CFR 122.21 and CFR 403.5.

B. Semi-Annual Reporting

1. The permittee shall submit semi-annually a pretreatment report to the state. The report due on March 1st shall describe the permittee's pretreatment program activities over the previous year and shall cover the period January through December. The report due on September 1st shall describe the permittee's pretreatment program activities over the previous six (6) months and shall cover the period January through June. In the event that the permittee is not in compliance with any conditions or requirements of this permit, then the permittee shall also include the reasons for noncompliance and state how and when the permittee shall comply with such conditions and requirements. Each report shall contain, but not be limited to, the following information:

   a. Analytical results of the POTW's influent, effluent, and sludge (including sludge from lagoons) annually, by the 28th of January, for those pollutants identified under Section 307(a) of the Act which are known or suspected to be discharged by industrial users, and for any nonpriority pollutants which the permittee believes may be causing or contributing to interference, pass-through, or adversely impacting sludge quality. The report shall include all pollutants identified on KPDES Discharge Monitoring Report (DMR) for pretreatment influent, effluent, and sludge scan. The frequency of analysis shall not exceed twelve months.

   b. A discussion of upset, interference, or pass-through incidents, if any, at the POTW treatment plant which the permittee knows or suspects were caused by industrial users of the POTW system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the industrial user(s) responsible.

   c. The cumulative number of industrial users that the permittee has notified regarding baseline monitoring reports and the cumulative number of industrial user responses.

   d. An updated list of the permittee's industrial users including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The permittee shall provide a brief explanation for each deletion. The list shall identify the industrial users subject to federal categorical standards and which set(s) of standards are applicable. The permittee shall characterize the compliance status of each industrial user by employing the following descriptions:

      (1) In compliance with baseline monitoring report requirements (where applicable);
      (2) Consistently achieving compliance;
      (3) Inconsistently achieving compliance;
      (4) Significantly violated applicable pretreatment requirements as defined by 40 CFR 403.8(f)(2)(vii);
      (5) On a compliance schedule to achieve compliance (include the date final compliance is required);
      (6) Not achieving compliance and not on a compliance schedule;
      (7) The permittee does not know the industrial user's compliance status (with explanation).

e. A summary of the inspection and sampling activities conducted by the permittee during the past six (6) months to gather information and data regarding industrial users. The summary shall include:

(1) The names of industrial users subject to surveillance by the permittee and an indication of whether they were inspected, sampled, or both and the frequency of these activities at each user; and
(2) The conclusions or results from the inspection or sampling of each industrial user.

f. A summary of the compliance and enforcement activities during the past six (6) months, the summary shall include the names of the industrial users affected by the following actions:

(1) Warning letter or notices of violation;
(2) Administrative orders;
(3) Civil actions;
(4) Criminal actions;
(5) Assessment of monetary penalties. For each industrial user identify the amount of the penalties;
(6) Restriction of flow to the POTW; or
(7) Disconnection from discharge to the POTW.

g. A description of any significant changes in operating the pretreatment program which differ from the information in the permittee's approved pretreatment program including, but not limited to changes concerning: the program's administrative structure; local industrial discharge limitations; monitoring program or monitoring frequencies; legal authority or enforcement policy; funding mechanisms; resource requirements; or staffing levels.

h. A summary of the semi-annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.

i. A summary of public participation activities to involve and inform the public. This shall include a copy of the annual publication of significant violations, if such publication was needed to comply with 40 CFR 403.8(f)(2)(vii).

j. A description of any changes in sludge disposal methods and a discussion of any concerns not described elsewhere in the report.

k. Any other information deemed as pertinent by the state in effectively administrating an approved pretreatment program.

2. A signed copy of this report shall be submitted by the due dates to the state at the address shown below:

Kentucky Department for Environmental Protection
Division of Water, KPDES Branch
14 Reilly Road, Frankfort Office Park
Frankfort, Kentucky 40601

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
Louisville Regional Office
9116 Leesgate Road
Louisville, Kentucky 40222-5084
ATTN: Supervisor

Environmental & Public Protection Cabinet
Dept. for Environmental Protection
Division of Water/KPDES Branch
14 Reilly Road, Frankfort Office Park
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 5:080 and KRS 224, 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.

PART IV
ACUTE CONCERNS
Biomonitoring

In accordance with PART I of this permit, the permittee shall initiate, within 30 days of the effective date of this permit, or continue the series of tests described below to evaluate wastewater toxicity of the discharge from Outfall 001.

1. Test Requirements

   A. The permittee shall perform a 48-hour static toxicity test with Ceriodaphnia sp. and a 48-hour static toxicity test with fathead minnow (Pimephales promelas). Tests shall be conducted on each of two (2) grab samples taken over a 24-hour period (e.g. discrete sample 1 taken at 9:00 a.m., sample 2 taken at 9:00 p.m.). Tests shall be conducted with appropriate replicates of 100% effluent, a control and a minimum of four (4) evenly spaced effluent concentrations. If the permit limit is less than 100% effluent and greater than or equal to 75% effluent, then one (1) concentration should be 100%. If the permit limit is less than 75% effluent, the permit limit concentration shall be bracketed with two (2) concentrations above and two (2) concentrations below. The selection of the effluent concentrations is subject to revision by the Division. Testing of the effluent shall be initiated within 36 hours of each sample collection. Controls shall be conducted concurrently with effluent testing using a synthetic water. The analysis will be deemed reasonable and good only if control survival is 90% or greater in test organisms held in synthetic water. Any test that does not meet the control acceptability criteria shall be repeated as soon as practicable within the monitoring period (i.e. monthly or quarterly). Noncompliance with the toxicity limit will be demonstrated if the LC_{50} is less than 100% effluent.

   B. Tests shall be conducted on both species at the frequency specified in PART I of this permit.

      If after at least six (6) tests it can be determined that Ceriodaphnia or the fathead minnow is more sensitive, a request for testing only that organism can be made to the Division. Upon approval, that organism can be chosen as representative and all subsequent tests can be conducted on only that organism.

2. Reporting Requirements

   Results of all tests conducted with any organism shall be reported according to the most recent format provided by the Division of Water (Appendix 10 of 'Methods for Culturing and Conducting Toxicity Tests with *Pimephales promelas* and *Ceriodaphnia dubia* (Fifth Edition)' KDOW, January 2002). Test results shall be submitted to the Division of Water with the next regularly scheduled discharge monitoring report.

3. Acute Toxicity

   If noncompliance with the toxicity limit occurs (the LC_{50} is less than 100% effluent), the permittee must conduct a second test using two (2) grabs within 10 days of the first failure. This test will be used in evaluating the persistence of the toxic event and the possible need for a toxics reduction evaluation (TRE).

3. Acute Toxicity (continuation)

If the second test demonstrates noncompliance with the toxicity limit, the permittee will be required to perform accelerated testing as specified in the following paragraphs.

Complete four (4) tests within 60 days of failure of the second test to evaluate the frequency and degree of toxicity. The results of the two (2) tests specified above and of the four (4) additional tests will be used for purposes of this evaluation.

If results from two (2) of any six (6) tests show a significant noncompliance with the acute limit (=1.2 times the TU_a), or results from four (4) of any six (6) tests show acute toxicity (as defined in 1.A), a Toxicity Reduction Evaluation (TRE) will be required.

The permittee shall provide written notification, within five (5) days of the completion of accelerated testing to the Division of Water, that toxicity persisted and that a TRE would be initiated or that toxicity did not persist and the normal testing would resume.

Should toxicity not prove persistent during the accelerated testing, but reoccur within 12 months of the initial failure at a level = 1.2 times the TU_a, then a TRE shall be initiated without further accelerated testing.

4. Toxicity Reduction Evaluation (TRE)

Having determined the effluent to be toxic, the permittee shall develop and implement an acceptable plan for the identification and treatability of the toxicant(s) within 90 days of completion of accelerated testing. The plan shall be developed in accordance with EPA guidance provided in the following EPA publications and submitted for DEP review and comment:

Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program. March 27, 2001.

Toxicity Reduction Evaluation Guidance For Municipal Wastewater Treatment Plants. August 1999.

Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures. February 1991.

Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures. February 1989.

Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures. February 1989.

Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (TREs). March 1989.

Abstracts of Toxicity Reduction Evaluations. March 1989.

The plan shall include Toxic Identification Evaluation (TIE) procedures, treatability studies, and evaluations of: chemical usage including changes in types, handling and suppliers; operational and process procedures; housekeeping and maintenance activities; and raw materials. The TRE will establish an implementation schedule not to exceed 24 months for completion of these activities. The implementation schedule shall include monthly progress reports and a final report.

Upon the completion of the TRE, the permittee shall submit a final report detailing the findings of the TRE and the actions to be taken to prevent the reoccurrence of toxicity. This final report shall include: the toxicant(s), if any are identified; treatment options; operational changes; and the proposed resolutions including an implementation schedule not to exceed 180 days.

Should the permittee determine the toxicant(s) and/or a workable treatment prior to the conclusion of the TRE, the permittee will notify, within five (5) days, the Division of Water and take appropriate actions to implement the solution within 180 days of determination.

5. Test Methods

All test organisms, procedures, and quality assurance criteria used shall be in accordance with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, EPA-821-R-02-012 (5th edition) or the most recently published edition of this publication.

ERNIE FLETCHER
GOVERNOR

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
14 REILLY ROAD
FRANKFORT, KENTUCKY 40601-1190
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LAJUANA S. WILCHER
SECRETARY

FACT SHEET

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

KPDES No.: KY0078956 **Permit Writer:** Barry D. Elmore **Date:** May 9, 2006
AI No.: 2163

1. **SYNOPSIS OF APPLICATION**

a. Name and Address of Applicant

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville, Kentucky 40203-1911

b. Facility Location

West County Wastewater Treatment Plant
11621 Lower River Road
Louisville, Jefferson County, Kentucky

c. Description of Applicant's Operation

Engaged in collection, treatment, and disposal of wastewater.

d. Production Capacity

30 MGD

e. Description of Existing Pollution Abatement Facilities

Treatment process consists of screening, grit removal, activated sludge treatment capable of being operated either in the complete mix or the contact-stabilization mode, sedimentation, disinfection by sodium hypochlorite, and de-chlorination. Solids are transported by force main to Morris Forman Wastewater Treatment Plant for further treatment and disposal.

Tanks that were formerly used for solids storage have been converted to wastewater treatment.

jm

The WCWTP Liquid Phase III Expansion project consists of the following improvements:

- One new two-cell solids holding tank with new blower system
- Piping and diffuser systems to convert existing aeration basins capable of operating in complete mix or contact stabilization mode
- One new solids transfer pump station
- New screenings conveyor system for transporting the screenings to ground level
- Addition of algae removal system to the secondary clarifiers
- Addition of a fiber optic network throughout the plant
- Addition of exterior and safety lighting
- Addition of electrical sub-metering
- Addition of noise control and bio-filter odor control
- Upgrade the site

f. Permitting Action

This is a reissuance with modification of a major KPDES permit for a municipality with an existing discharge.
The treatment plant was re-reworked to allow a re-rating of the design capacity from a permitted average daily flow of 19.5 MGD to an average daily flow of 30.0 MGD.

2. **RECEIVING WATER**

a. Name/Mile Point

Ohio River at mile point 358.1 (COE river mile 623.3)

b. Stream Segment Use Classification

Warmwater Aquatic Habitat, Primary/Secondary Contact Recreation, and Domestic Water Supply. This discharge is located in a segment of the Ohio River listed under Section 303(d) of the Clean Water Act as impaired due to pathogens, PCBs, and priority organic pollutants. Pathogens cause non-support of swimming use. Sources of pathogens are combined sewer overflows (CSOs), urban runoff, storm sewers, and sanitary sewer overflows (SSOs). PCBs cause impairment for fish consumption.

This discharge is not considered a contributor of these pollutants of concern. PCBs are a legacy issue and not a component of domestic wastewater. Pathogens are not a problem for properly operating treatment plants. This treatment plant meets pathogen limits.

c. Stream Low Flow Condition

12900 cfs

3. REPORTED DISCHARGE AND PROPOSED LIMITS - Municipal

Serial Number 001

Effluent Characteristics	Reported Discharge*			Proposed Limits		COMMENTS
	Average Annual Value	Lowest Monthly Value	Highest Monthly Value	Monthly Average	Weekly Average	
Flow, MGD	21.00	13.57	30.06	Design Flow= 30.0 mgd		
BOD_5, mg/l	5.32	3.0	12	30	45	
TSS, mg/l	4.85	2.00	13.0	30	45	
Fecal Coliform, N/100 ml	NR	NR	34	200	400	
Ammonia (as N), mg/l	0.54	0.17	3.23	20	30	
Phosphorus (mg/l as P)	1.41	NR	NR	Report	Report	
TKN (mg/l as N)	NR	NR	NR	Report	Report	
Dissolved Oxygen, mg/l	NR	4.5	NR	Not less than 2		
pH, standard units	NR	5.40	8.10	6.0 - 9.0		
Total Residual Chlorine, mg/l	NR	NR	<0.014	0.019 Daily Maximum		
Biomonitoring, Acute Toxicity units (TU_A)		<1.00	3.27	1.00 Daily Maximum See PART IV		

NR-Not Reported

*The reported discharge values listed were compiled from DMR data, starting with current permit start date of February 1, 2001 through June 30, 2004.

4. **METHODOLOGY USED IN DETERMINING LIMITATIONS**

a. Serial Number

Outfall 001 Municipal Wastewater

b. Effluent Characteristics

Conventional Pollutants: Flow, Biochemical Oxygen Demand (5-day), Total Suspended Solids, Fecal Coliform, pH, Ammonia Nitrogen, Phosphorus, TKN, Dissolved Oxygen, and Total Residual Chlorine (TRC).

Biomonitoring Toxicity Pollutants: Toxicity, Total Recoverable Cadmium, Total Recoverable Copper, Total Recoverable Lead, Total Recoverable Zinc, and Hardness as Calcium Carbonate.

Reasonable Potential Pollutants: Hexavalent Chromium.

Pretreatment Pollutants: Total Recoverable Arsenic, Total Recoverable Cadmium, Chloride, Hexavalent Chromium, Total Recoverable Chromium, Total Recoverable Copper, Free Cyanide (Amenable to Chlorination), Total Recoverable Iron, Total Recoverable Lead, Total Recoverable Mercury, Total Recoverable Nickel, Molybdenum, Oil & Grease, pH, Total Phenolics, Total Phosphorus (as P), Total Recoverable Selenium, Total Recoverable Silver, Total Recoverable and Zinc.

c. Pertinent Factors

This municipality has an approved pretreatment program.

This facility transports solids by force main to another facility (Morris Forman WWTP) for final processing. This permit allows the sludge monitoring to occur in conjunction with the Morris Forman permit and sludge disposal regulations.

The biomonitoring method is Acute Toxicity.

d. Monitoring Requirements
The monitoring frequency, location, and method of measurement for all parameters within this permit are consistent with 401 KAR 5:065 Section 2 (8).

Flow shall be monitored continuously with a recording flow meter.

Conventional Pollutants shall be monitored once per day: Biochemical Oxygen Demand (5-day), Total Suspended Solids, Fecal Coliform, pH, Ammonia Nitrogen, and Dissolved Oxygen.

Reasonable Potential Pollutants shall be monitored once per month: Hexavalent Chromium.

Biomonitoring shall be performed at a quarterly frequency unless the plant enters a TRE.

Toxicity Pollutants to be monitored at the same frequency as the biomonitoring: Total Recoverable Cadmium, Total Recoverable Copper, Total Recoverable Lead, and Total Recoverable Zinc.

Monitoring shall be once per year for the pretreatment pollutants: Total Recoverable Arsenic, Total Recoverable Cadmium, Chloride, Hexavalent Chromium, Total Recoverable Chromium, Total Recoverable Copper, Free Cyanide (Amenable to Chlorination), Total Recoverable Iron, Total Recoverable Lead, Total Recoverable Mercury, Total Recoverable Nickel, Molybdenum, Oil & Grease, pH, Total Phenolics, Total Phosphorus (as P), Total Recoverable Selenium, Total Recoverable Silver, and Total Recoverable Zinc.

Phosphorus and Total Kjeldahl Nitrogen Monitoring:
The monitoring requirements for these parameters are consistent with the requirements of 401 KAR 5:065, Section 2(8)(a). A number of studies have shown that nearly 85% of the nutrients discharged into the Ohio, Missouri, and Mississippi Rivers travel to the Gulf of Mexico thereby contributing to the hypoxia in the region. A majority of this nutrient load has been demonstrated to originate from large municipal wastewater sources. Therefore, the Division of Water is imposing the monitoring of these two on those sanitary wastewater treatment plants with a design capacity of 100,000 gpd or greater.

e. Justification of limits

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

<u>Biochemical Oxygen Demand (5-day), Total Suspended Solids, Fecal Coliform, and pH</u>
The effluent limitations for the above permit parameters are consistent with 401 KAR 5:045.

<u>Ammonia Nitrogen, Dissolved Oxygen, Total Residual Chlorine (TRC), and Acute Toxicity</u>
The effluent limitations for the above permit parameters are consistent with 401 KAR 5:031.

<u>Total Recoverable Copper, Total Recoverable Lead, Total Recoverable Zinc, and Hardness as Calcium Carbonate</u>
The monitoring requirements for the above permit parameters are consistent with 401 KAR 5:031.

Total Recoverable Cadmium

The monitoring requirement for the above permit parameter is consistent with 401 KAR 5:065, Section 2(4) and 401 KAR 5:031. A reasonable potential analysis was performed that compared monitoring data against expected effluent requirements. Monitoring data from the permittee's Discharge Monitoring Report (DMR) was used. The Steady State Toxics Wasteload Allocation Model (SSTWAM '95) generated the expected effluent requirements. The permittee had one high sample reported in December 2002. Further review pursuant to public notice comments showed that the DMR-reported average as calculated using Reasonable Potential Guidance was 0.0007 mg/l for the time frame from December 31, 2001 through December 31, 2005. This is 6.4% of the potential limit value of 0.011 mg/l for average value. A maximum value of 0.009 mg/l was reported December 31, 2002. Since that date, all the values but one have been less than 0.001 mg/l. The highest value from 2003 through 2005 was 0.002 mg/l, and this was for only one occurrence in June 2003. There are sufficient data under reasonable potential guidance to accept .0.002 mg/l as the reasonable maximum potential value to expect under current operating conditions. A value of 0.002 mg/l represents 18.2 % of the potential limit for maximum value. Under Reasonable Potential, there is no indication for more frequent monitoring or for a permit limitation. Monitoring for Cadmium will continue at the same frequency as biomonitoring, and will continue with the annual pretreatment scan.

Total Recoverable Silver

The monitoring requirement for the above permit parameter is consistent with 401 KAR 5:065, Section 2(4). A reasonable potential analysis was performed that compared monitoring data against expected effluent requirements. Monitoring data from the permittee's Discharge Monitoring Report (DMR) were used. The Steady State Toxics Wasteload Allocation Model (SSTWAM '95) generated the expected effluent requirements. There was one reported high sample. Further review pursuant to public notice comments showed that the DMR-reported average as calculated using Reasonable Potential Guidance was 0.0009 mg/l for the time frame from December 31, 2001 through December 31, 2005. The maximum value for this time frame was 0.003 mg/l. This maximum value was from 2001, and the average value for that reporting period was an order of magnitude smaller. Later DMR data are at least an order of magnitude smaller. The later data indicate that a maximum daily limit for silver is not warranted, and that an increase in monitoring is also unneeded. This permit continues DMR monitoring for silver on an annual basis, consistent with pretreatment monitoring. The monitoring requirement is applicable to municipal wastewater treatment plants that have pretreatment programs, as per 401 KAR 5:057, Section 6.

Hexavalent Chromium

The monitoring results for the above permit parameter were analyzed as per requirements in with 401 KAR 5:065, Section 2(4). A reasonable potential analysis was performed that compared monitoring data against expected effluent requirements. Monitoring data from the permittee's Discharge Monitoring Report (DMR) were used. The Steady State Toxics Wasteload Allocation Model (SSTWAM '95) generated the expected effluent requirements. Further review pursuant to public notice of the permit indicated that the average value under Reasonable Potential Guidance, for Hexavalent Chromium was 0.0162 mg/l for the time frame from December 31, 2001 through December 31, 2005. This average value is 101% of the potential average limit. The maximum value for this time frame was 0.04 mg/l. This value is 250% of the potential maximum limit. The reported values were high enough to indicate limits for both average and maximum values; however, under Reasonable Potential Guidance, there is insufficient data to justify actual implementation of a limit. To further evaluate the need for a limit, this permit increases monitoring for Hexavalent Chromium to monthly.

The permittee may apply for modification for the removal of this pollutant after twelve (12) months of monitoring results have been reported to the Division. The Division will review the new results for making a determination on any request for a permit modification.

Total Recoverable Arsenic, Total Recoverable Cadmium, Chloride, Total Recoverable Hexavalent Chromium, Total Recoverable Chromium, Total Recoverable Copper, Free Cyanide (Amenable to Chlorination), Total Recoverable Iron, Total Recoverable Lead, Total Recoverable Mercury, Total Recoverable Nickel, Molybdenum, Oil & Grease, pH, Total Phenolics, Total Phosphorus (as P), Total Recoverable Selenium, Total Recoverable Silver, and Total Recoverable Zinc. The monitoring requirements for the above permit parameters are applicable to municipal wastewater treatment plants that have pretreatment programs, as per 401 KAR 5:057, Section 6. Monitoring requirements are applicable for the municipal plant influent, effluent, and sludge in order to monitor potential interference, pass-through, or adverse impact on sludge quality.

5. **ANTIDEGRADATION**

The development of this permit commenced prior to the April 12, 2005 EPA approval of Kentucky's Antidegradation Regulation promulgated on September 8, 2004. Therefore, previous antidegradation requirements are applicable. The conditions of 401 KAR 5:029, Section 1 have been satisfied by this permit action. 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.

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

Sludge Management:

Requirements will be imposed, as applicable, governing the disposal of sewage sludge in accordance with 40 CFR Part 503 and 401 KAR Chapter 45.

8. **PERMIT DURATION**

Five Years.

9. **PERMIT INFORMATION**

The application, draft permit, fact sheet, public notice, comments received, and additional information is available from the Division of Water at 14 Reilly Road, Frankfort Office Park, 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 – Barry Elmore at (502) 564-2225, extension 459.or email Barry.Elmore@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).

ATTACHMENT - STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL (SSTWAM'95) - 30MGD Plant

SSTWAM'95 OUTPUT FILE

INPUT DATA :

KPDES Number:	KY0078956	
Facility Name:	MSD West Co 30.0 mgd	
Receiving Water:	Ohio River	
Requested by:	Sue L. Davis	
Date Entered:	08/20/20	
User Name	Sue L. Davis	
QT =	30.0516	MGD
QU =	7108.9920	MGD
QUH1NC =	7108.9920	MGD
QUH1C =	31667.3300	MGD
QUH2NC =	8336.9090	MGD
QUH2C =	39357.9600	MGD
HT =	220	mg/l as CaCO3
HU =	130	mg/l as CaCO3
ZID =	1	dilutions
MZ =	0.33333	
ACR =	0.1	
HQ =	ND	

CALCULATION METHODOLOGY :

AQUATIC LIFE - CHEMICAL SPECIFIC

ACUTE: IF NO ZONE OF INITIAL DILUTION (ZID) GIVEN, THEN ACUTE CRITERIA APPLIES AT END OF PIPE (EOP), CT=CDA
IF ZID IS GIVEN THEN CT=(CDA-CU) (ZID)

CHRONIC: MIXING ZONE / COMPLETE MIX
CT=(CDC[(QT+(MZ)QU)]-CU(MZ)QU)/QT

HUMAN HEALTH - CHEMICAL SPECIFIC

FISH ONLY: MIXING ZONE / COMPLETE MIX
CARCINOGEN: CT=(CDH1[(QT+(MZ)QUH1C)]-CU(MZ)QUH1C)/QT
NON-CARCINOGEN: CT=(CDH1[(QT+(MZ)QUH1NC)]-CU(MZ)QUH1NC)/QT

FISH & WATER: COMPLETE MIX, APPLICABLE AT POINT OF WITHDRAWAL
CARCINOGEN: CT=(CDH2[(QT+QUH2C)]-CU(QUH2C))/QT
NON-CARCINOGEN: CT=(CDH2[(QT+QUH2NC)]-CU(QUH2NC))/QT

AQUATIC LIFE - WHOLE EFFLUENT

ACUTE: IF NO ZID GIVEN, THEN ACUTE CRITERIA APPLIES AT EOP, CT=CDA, IN ACUTE TOXICITY UNITS
IF ZID IS GIVEN, THEN CT=[(CDA-CU)](ZID)

CHRONIC: MIXING ZONE / COMPLETE MIX
CT, IN CHRONIC TOXICITY UNITS = (CDC[(QT+(MZ)QU)]-CU(MZ)QU)/QT
CT, IN ACUTE TOXICITY UNITS = (CT, IN CHRONIC TOXICITY UNITS)(ACR)

DEFINITIONS :

ACR= ACUTE TO CHRONIC RATIO
CDA= ACUTE DOWNSTREAM CONCENTRATION (CRITERIA) FOR AQUATIC LIFE
CDC= CHRONIC DOWNSTREAM CONCENTRATION (CRITERIA) FOR AQUATIC LIFE
CDH1= DOWNSTREAM CONCENTRATION (CRITERIA) FOR HUMAN HEALTH FISH CONSUMPTION ONLY
CDH2= DOWNSTREAM CONCENTRATION (CRITERIA) FOR HUMAN HEALTH FISH AND WATER CONSUMPTION
CT= END OF PIPE OUTPUT LIMIT
CU= CONCENTRATION UPSTREAM (BACKGROUND CONCENTRATION)
EOP= END OF PIPE
HM= HARMONIC MEAN STREAM FLOW
HT= EFFLUENT HARDNESS
HU= STREAM HARDNESS
MGD= MILLION GALLONS PER DAY
MZ= MIXING ZONE FACTOR
QT= TOTAL EFFLUENT FLOW
QUH1C= STREAM FLOW (HM) FOR HUMAN HEALTH, FISH CONSUMPTION, CARCINOGEN, AT POINT OF DISCHARGE
QUH1NC= STREAM FLOW (7Q10) FOR HUMAN HEALTH, FISH CONSUMPTION, NON-CARCINOGEN, AT POINT OF DISCHARGE
QUH2C= STREAM FLOW (HM) FOR HUMAN HEALTH, FISH & WATER CONSUMPTION, CARCINOGEN, AT POINT OF WITHDRAWAL
QUH2NC= STREAM FLOW (7Q10) FOR HUMAN HEALTH, FISH & WATER CONSUMPTION, NON-CARCINOGEN, AT POINT OF WITHDRAWAL
QU= STREAM FLOW (7Q10) FOR WATER QUALITY AT POINT OF DISCHARGE
TUa= ACUTE TOXICITY UNITS
TUc= CHRONIC TOXICITY UNITS
ug/l= MICROGRAMS PER LITER
ZID= ZONE OF INITIAL DILUTION FACTOR
HQ= HIGH QUALITY INDICATOR

CAP ON HARDNESS FOR METALS = 400 mg/l CaCO3

ATTACHMENT - STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL (SSTWAM'95) - 30MGD Plant (continued)

REPORT OF ALL CALCULATIONS

HIGH QUALITY = NO

Chemical Specific Parameter	Carcinogen	Background Conc. ug/l CU	Criteria / Standards, ug/l: Aquatic Life Acute CCA	Aquatic Life Chronic CCC	Human Health 10^-6 Risk Level Fish Only CCH1	Human Health 10^-6 Risk Level Fish & H20 CCH2	Output (CT), ug/l: Aquatic Life Acute EOP Hardness 220.00	Aquatic Life Chronic Mix Zone Hardness 131.13	Human Health Fish Only Mix Zone	Human Health Fish & H20 Complete Mix	Final Limits - Water Quality, ug/l: Average	Final Limits - Water Quality, ug/l: Maximum	Justification: Average	Justification: Maximum	Reported Discharge Level ug/l
9 Arsenic, Total Recoverable	Y	0.0000	NA	50.0000	NA	NA	NA	3992.6190	NA	NA	3992.6190	NA	CHRONIC	NA	0.0000
25 Cadmium, Total Recoverable	N	0.0000	10.9903	3.045808	NA	5.0000	10.9903	243.2151	NA	1392.0990	10.9903	10.9903	ACUTE	ACUTE	0.0000
28 Chloride	N	0.0000	1200000	600000	NA	250000	1200000	47911430	NA	69604950	1200000	1200000	ACUTE	ACUTE	0.0000
43 Chromium, Total Recoverable	N	0.0000	NA	NA	NA	100.0000	NA	NA	NA	27841.9800	27841.9800	NA	FISH & H20	NA	0.0000
45 Chromium VI	N	0.0000	16.0000	11.0000	NA	NA	16.0000	878.3762	NA	NA	16.0000	16.0000	ACUTE	ACUTE	0.0000
49 Copper, Total Recoverable	N	0.0000	29.4259	11.7598	NA	1000.0000	29.4259	939.0458	NA	278420	29.4259	29.4259	ACUTE	ACUTE	0.0000
50 Cyanide, Free	N	0.0000	22.0000	5.2000	220000	200.0000	22.0000	415.2324	17567520	55683.9600	22.0000	22.0000	ACUTE	ACUTE	0.0000
102 Iron, Total Recoverable	N	0.0000	4000.0000	1000.0000	NA	NA	4000.0000	79852.3800	NA	NA	4000.0000	4000.0000	ACUTE	ACUTE	0.0000
104 Lead, Total Recoverable	N	0.0000	222.7584	4.492281	NA	15.0000	222.7584	358.7193	NA	4176.2970	222.7584	222.7584	ACUTE	ACUTE	0.0000
107 Mercury, Total Recoverable	N	0.0000	1.7000	0.9100	5.1000E-02	5.0000E-02	1.7000	72.6657	4.072472	13.9210	1.7000	1.7000	ACUTE	ACUTE	0.0000
113 Nickel, Total Recoverable	N	0.0000	914.1632	65.6040	4600.0000	100.0000	914.1632	5238.6390	367321	27841.9800	914.1632	914.1632	ACUTE	ACUTE	0.0000
136 Phenols, Total	N	0.0000	NA	NA	5.0000	NA	NA	NA	399.2619	NA	399.2619	NA	FISH ONLY	NA	0.0000
141 Selenium, Total Recoverable	N	0.0000	20.0000	5.0000	NA	50.0000	20.0000	399.2619	NA	13920.9900	20.0000	20.0000	ACUTE	ACUTE	0.0000
142 Silver, Total Recoverable	N	0.0000	15.7531	NA	NA	50.0000	15.7531	NA	NA	13920.9900	15.7531	15.7531	ACUTE	ACUTE	0.0000
165 Zinc, Total Recoverable	N	0.0000	233.6959	150.7430	69000.0000	5000.0000	233.6959	12037.1900	5509815	1392099	233.6959	233.6959	ACUTE	ACUTE	0.0000
Whole Effluent															
1 Acute Toxicity Units (TUa)	NA	0	0.3	NA	NA	NA	1.0000	7.985239	NA	NA	7.985239	1.0000	CHRONIC	ACUTE	NA
2 Chronic Toxicity Units (TUc)	NA	0	NA	1	NA	NA	NA	79.8524	NA	NA	79.8524	NA	CHRONIC	NA	NA

**** END OF FILE ****

ATTACHMENT - REASONABLE POTENTIAL ANALYSIS -30 MGD Plant

A reasonable potential analysis is a determination by the Division of Water of whether effluent limitations, monitoring only or no requirements are imposed for a particular parameter on a specific permit. To perform the analysis the values reported on either the permit application or a summarization of the discharge monitoring data are divided by the expected effluent limit generated using SSTWAM95 and converted to a percentage for each pollutant. That percentage is then compared to the following criteria:

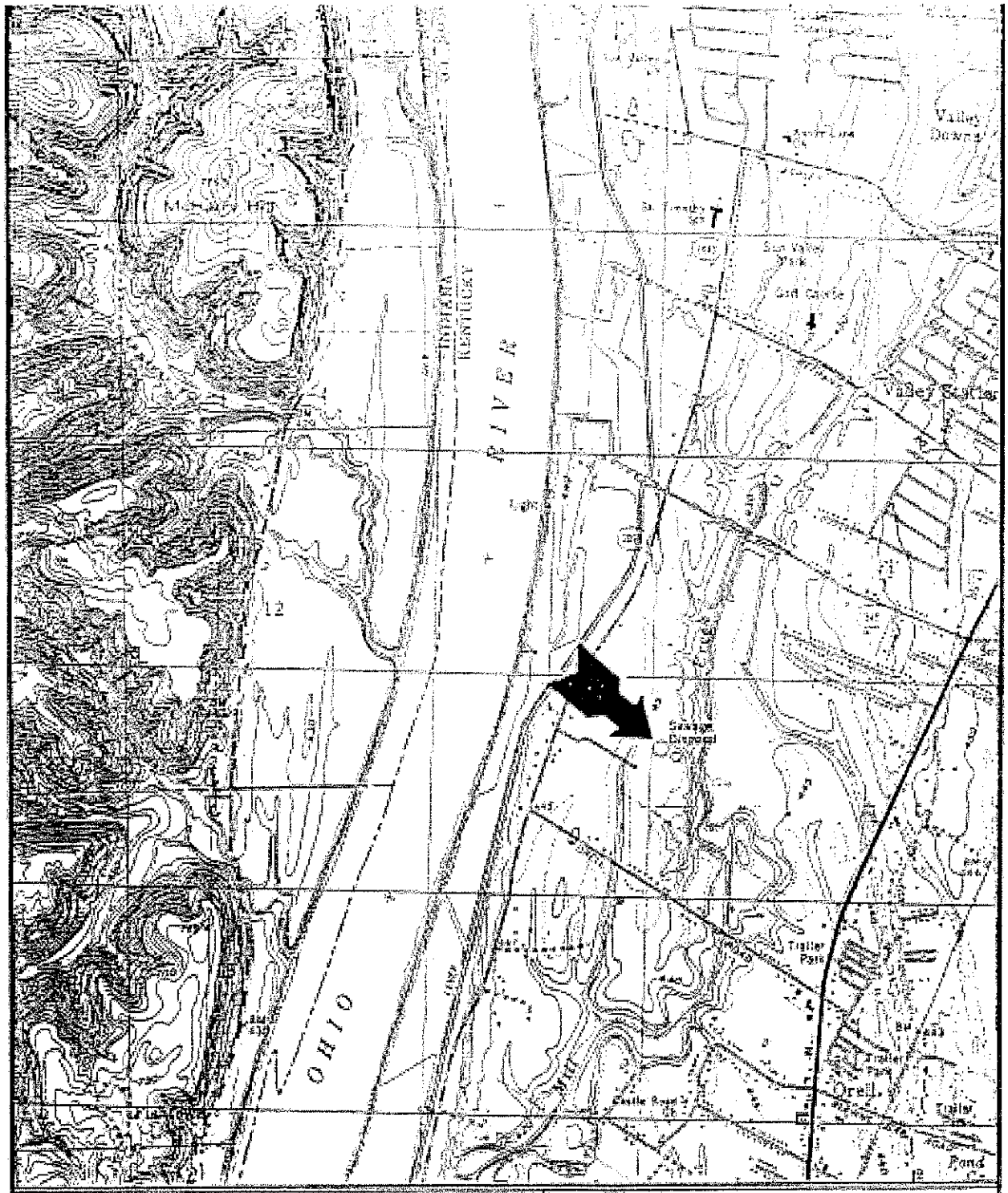
Percentage	Requirement
Less than 70%	None
Greater than 70% but less than 90%	Monitoring Only Required
Greater than 90%	Limit Required

In all cases, the Division of Water still may exercise its Best Professional Judgment in the implementation of the results, i.e. should insufficient data points exist to make a reasonable determination that a limit should be applied, then DOW may require additional monitoring to insure the appropriate requirement is imposed. This may take the form of additional monitoring requested during the development of the permit or may be required as part of the final permit.

The following table illustrates the results of the reasonable potential analysis performed on this facility. Background data is from February 2001 through June 2004 unless indicated otherwise in Part 4 of Fact Sheet.

Chemical Specific Parameter	Limits, mg/l		Reported Values, mg/l		Percentage		Effluent Limitations	
	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
Arsenic, Total Recoverable	3.993	NA	0.0017	0.0040	0.04	NA	None	NA
Cadmium, Total Recoverable	0.011	0.011	0.0007	0.0020	6.36	18.180	None	None*
Chloride	1200	1200	82	89	6.83	7.452	None	None
Chromium, Total Recoverable	27.84	NA	0.0027	0.0070	0.01	NA	None	NA
Chromium VI	0.016	0.016	0.0162	0.0400	101.25	250.00	Limit*	Limit*
Copper, Total Recoverable	0.029	0.029	0.0042	0.0130	14.15	44.179	None	None
Cyanide, Free (Amenable)	0.022	0.022	0.0073	0.0150	33.09	68.182	None	None
Iron, Total Recoverable	4	4	0.1093	0.1770	2.73	4.425	None	None
Lead, Total Recoverable	0.223	0.223	0.0024	0.0200	1.08	8.978	None	None
Mercury, Total Recoverable	0.002	0.002	0.0002	0.0003	10.08	17.647	None	None
Nickel, Total Recoverable	0.914	0.914	0.0090	0.0156	0.99	1.706	None	None
Phenols, Total	0.399	NA	0.0094	0.0094	2.35	NA	None	NA
Selenium, Total Recoverable	0.020	0.020	0.0022	0.0049	11.00	24.500	None	None
Silver, Total Recoverable	0.016	0.016	0.0009	0.0300	5.63	187.500	None	Limit*
Zinc, Total Recoverable	0.234	0.234	0.039	0.088	16.76	37.656	None	None

N/A = Not Applicable
* See explanation in Part 4 of Fact Sheet.

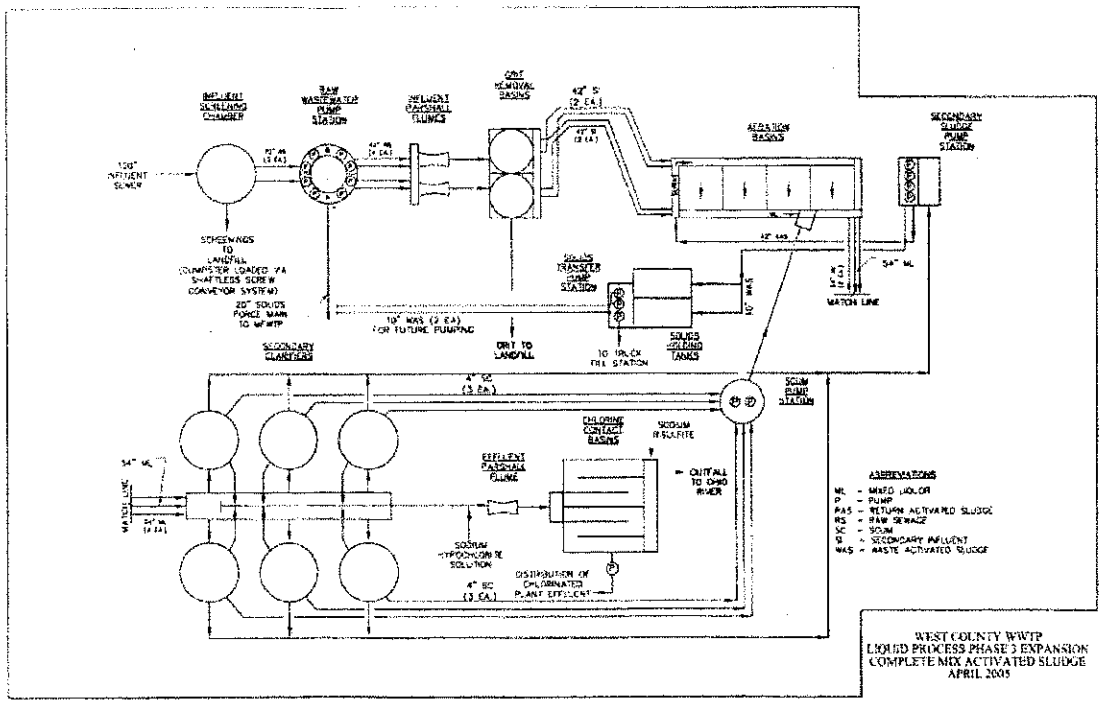


KOSMOSDALE QUADRANGLE
KENTUCKY–INDIANA
7.5 MINUTE SERIES (TOPOGRAPHIC)
SW/4 KOSMOSDALE 15' QUADRANGLE

WEST COUNTY WWTP

MSD
URBAN AREA
4522 Algonquin Parkway—Louisville, Ky. 40211
(502) 775-6481

LATITUDE			LONGITUDE		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
38°	05'	04"	85°	54'	43"



WEST COUNTY WWTP
LIQUID PROCESS PHASE 3 EXPANSION
COMPLETE MIX ACTIVATED SLUDGE
APRIL 2005