## PART A

## Page 5 of 14

## E. MONITORING AND REPORTING

## A. Representative Sampling and Test Procedures

- Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.
- Unless otherwise specified in this permit, the test procedures for analysi of pollutents shall be those contained in 40 CFR Part 136, or alternate test procedures approved pursuant to that part.

## B. Self-Monitoring and Reporting Requirements

The permittee shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the discharge. Monitoring date required by this permit shall be submitted monthly.

-A Discharge Monitoring Report (DMR) properly completed and signed by the treatment plant operator in responsible charge, must be submitted within 45 days after the end of each monthly report period. Nótification of the designati of the responsible operator must be submitted to the permitting agency by the permittee within 60 days after the effective date of the permit and from time to time thereafter as the operator is replaced. The DMR must be sent to the Department and the EPA Regional Office at the following eddresses:

Department of Environmental Resour	C2S
Bureau of Water Quality Management	
1875 New Hope Street	
Norristown, Pennsylvania 19401	

Pennsylvania Section (30052) Fermits, Water Branch Water Division U.S. Environmental Protection Ag Region III 841 Chestnut Building Philadelphia, PA 19106

C. If the permittee monitors any pollutant, using analytical methods described in Part A.2.A(2) above, more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR.

## D. Non-Compliance Reporting

1. 24-Hour Reporting:

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The permittee shall orally report to the Department within 24 hours of becoming aware of the following:

- (a) Actual or anticipated non-compliance with any term or condition of this permit which may endanger health or the environment.
- (b) Actual or enticipated non-compliance with any "maximum daily"discharge limitation which is identified in Part A1 of this permit as being either:

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- A toxic pollutant effluent standard established by EPA pursuant to Section 307(a) of the Clean Water Act, or
- (ii) A toxic or hazardous pollutant which, if not adequately treated, could constitute a threat to human health, welfare, or the environment,
- (iii) Any pollutant identified as the method to control a toxic pollutant or hazardous substance (i.e., indicator pollutant).
- (c) Any unanticipated bypass which exceeds any effluent limitations in the permit.
- (d) Where the permittee orally reports this-information within the above mentioned 24 hour time period, a written submission outlining the above information must be submitted to the Department within 5 days of becoming aware of such a condition, unless this requirement is waived by the Department upon receipt of the oral report.
- 2. Other Non-Compliance Reporting.

- 1- 5

- (a) The permittee shall give advance notice to the Department of any planned changes to the permitted activity or facility which may result in non-compliance with permit requirements.
- (b) Where the permittee knows in advance of the need for a bypass which will exceed effluent limitations it shall submit prior notice to the Department at least 10 days, if possible, before date of the bypass.
- (c) The permittee shall report all instances of non-compliance which are not reported above at the time of DMR submission.
- 3. The reports and notifications required above shall contain the following information:
  - (a) A description of the discharge and cause of non-compliance;
  - (b) The period of non-compliance, including exact date and times and/or the anticipated time when the discharge will return to compliance; and
  - (c) Steps being taken to reduce, eliminate, and prevent recurrence of the non-complying discharge.

## PART A

## E. Recording of Results

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For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- 1. The exact place, date, and time of sampling or measurement.
- 2. The person(s) who performed the sampling or measurement.

3. The dates the analyses were performed.

4. The person(s) who performed the analyses.

5. The analytical techniques or methods used.

6. The results of such analyses.

## F. Records Retention

All records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for three (3) years. The three year period shall be extended as requested by the Department or the EPA Regional Administrator.

## PART A

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II. SCHEDULE OF COM	PLIANCE	E
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The permittee shall achieve compliance with final effluent limitations or terminate this discharge in accordance with the following schedule:

A. Feasibility study completion

B. Final plan completion

C. Start construction

D. Construction progress report(s)

E. End construction

F. Compliance with effluent limitations.

G. Terminate discharge

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No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit to the Department a written notice of compliance or non-compliance with the specific schedule requirement(s). Each notice of non-compliance shall include the following information:

A. A short description of the noncompliance.

B. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirement.

C. A description of any factors which tend to explain or mitigate the noncompliance.

D. An estimate of the date that compliance with the elapsed schedule requirement will be achieved and an assessment of the probability that the next scheduled requirement will be met on time.

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## MANAGEMENT REQUIREMENTS

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## A. Publicly Owned Treatment Works (POTW)

- Where the permittee is a Publicly Owned Treatment Works (POTW), the permittee shall provide adequate notice as discussed in A(2) below to the Department of the following:
  - (a) Any new introduction of pollutants into the POTW from an Industrial User which would be subject to Sections 301 and 306 of the Clean Water Act if it were otherwise discharging directly into waters of the United States.
  - (b) Any substantial change in the volume or character of pollutants being introduced into the POTW by an Industrial User which was discharging into the POTW at the time of issuance of this permit.
  - (c) Any change in the quality and quantity of effluent introduced into the POTW.
  - (d) The identity of significant Industrial Users served by the POTW which are subject to pretreatment standards adopted under Section 307(b) of the Clean Water Act; the POTW shall also identify the character and volume of pollutants discharged into the POTW by the Industrial User.

The submission of the above information in the POTW's annual Wasteload Management Report, required under the provisions of 25 Pa. Code Chapter will normally be considered as providing adequate notice to the Department However, if the above changes in industrial pollutant loadings to the POTW are significant enough to warrant either modification or revocation and reissuance of this permit, then the permittee is required to meet the provisions of Management Requirements B below.

The POTW shall require all Industrial Users to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act and any regulations adopted thereunder, and the Clean Streams Law and any regulations adopted thereunder.

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## B. Permit Modification. Termination. or Revocation and Reissuance

- 1. This permit may be modified, terminated, or revoked and reissued during its term for any of the causes specified in 25 Pennsylvania Code, Chapter 9:
- 2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or a notification of planned changes or anticipated non-compliance does not stay any permit condition.
  - 3. Notwithstanding the above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this permit, this permit shall be modified or revoked and reissued in accordance with the toxic effluent standard or prohibition and the permittee shall be so notified.

In the absence of a Departmental action to modify or to revoke and reissue this permit, any toxic effluent standard or prohibition established under Section 307(a) of the Act is considered to be effective and enforceable against the permittee.

## C. Right of Entry

Pursuant to Sections 5(b) and 305 of Pennsylvania Clean Streams Law and 25 Pennsylvania Code, Chapter 92, the permittee shall allow the head of the Department, the EPA Regional Administrator, and/or their authorized representatives, upon the presentation of credentials:

- 1. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit.
- 2. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit and other documen as may be required by law.
- 3. To inspect at reasonable times any monitoring equipment or monitoring method required in this permit.
- 4. To inspect any collection, treatment, pollution management, or discharge facilities required under the permit.

5. To sample any substances or parameters at any location.

## D. Property Rights .

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The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges; nor does it authorize any injury to private property or any invasion of personal rights.

## E. Duty to Provide Information

- 1. The permittee shall furnish to the Department within a reasonable time, any information which the Department may request to determine whether cause exists for modifying revoking and reissuing, or terminating this permit, or to determine compliance with this permit.
- 2. The permittee shall furnish to the Department, upon request, copies of records required to be kept by this permit.
- 3. Planned changes: The permittee shall give advance notice to the Department of any physical alterations or additions to the permitted facility.
- 4. Other Information: Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information to the Department.

## F. Confidentiality

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Except for data determined to be confidential under 25 Pennsylvania Code, Chapter 92, all required reports shall be available for public inspection at the offices of the Department and the EPA Regional Administrator. Effluent data shall not be considered confidential...

G. Facility Operation and Quality Control

The permittee shall at all times maintain in good working order and properly operate all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee for water pollution control and abatement to achieve compliance with the terms and conditions of the permit. Proper operation and maintenance includes but is not limited to effective performance based on designed facility removals, adequate funding, effective management, adequate operator staffing and training, and adequate laboratory and processing controls including appropriate quality assurance procedures. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with this permit.

- H. Bypassing
  - 1. Bypassing Not Exceeding Permit Limitations: The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if the bypass is for essential maintenance to assure efficient operation. This type of bypassing is not subject to the reporting and notification requirements of Part A.2.D above.

## Page 12 of 14

- 2. In all other situations, bypassing is prohibited unless the following conditions are met:
  - (a) A bypass is unavoidable to prevent loss of life, personal injury or "severe property damage";
  - (b) There are no feasible alternatives to a bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down-time; (This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance.); and
  - (c) The permittee submitted the necessary reports required under Part A.2. above.
- 3. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the conditions listed under Part B.I.2. above.

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I. Adverse Impact

Permittee shall take all reasonable steps to minimize any adverse impact on the environment resulting from noncompliance with this permit.

J. Solids Disposal

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Collected screenings, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those waters (or runoff from the wastes) into waters of the Commonwealth.

K. Penalties and Liability

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- Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.
- 2. Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for non-compliance pursuant to Section 309 of the Clean Water Act or Sections 602 or 605 of the Clean Streams Law.
- L. Transfer of Ownership or Control
  - 1. No permit may be transferred unless approved by the Department.

2. In the event of any pending change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the Department by letter of such pending change at least thirty days prior to the change in ownership or control.

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- 3. The letter shall be accompanied by the appropriate Department forms for transfer of the permit and a written agreement between the existing permittee and the new owner or controller stating that the existing date of permit transfer and that the new owner or controller shall be liable for permit violations from that date on.
- 4. After receipt of the documentation above, the Department shall notify the existing permittee and the new owner or controller of its decision concerning approval of the transfer. In approving a transfer the Department may modify or revoke and reissue the permit.
- 5. In the event the Department does not approve transfer of the permit, the new owner or controller must submit a new permit application.

## M. Severability

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The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

## N. Other Laws

Nothing herein contained shall be construed to be an intent on the part of the Department to approve any act made or to be made by the permittee inconsistent with the permittee's lawful powers or with existing laws of the Commonwealth regulating sewerage discharge and the practice of professional engineering, nor shall this permit be construed to sanction any act otherwise forbidden by federal or state law or regulation, or by local ordinance. Nor does it pre-empt any duty to obtain State or local assent required by law for the discharge(s).

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## . PART C

## OTHER REQUIREMENTS

A. Effluent limitations, monitoring requirements, and other standard and special conditions which relate to the discharge(s) of pollutants authorized by this permit and which are contained in Water Quality Management Permit(s)

No. 5172405, 761538, 8208 issued on August 4, 1972, August 24, 1961, December 13, 1951

are superseded by the terms and conditions of this permit, unless specifically noted otherwise herein.

B. A copy of the Discharge Monitoring Report is to be sent to the following agency:

Delaware River Basin Commission P.O. Box 7360 West Trenton, New Jersey 08628

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- For reporting purposes on the Discharge Monitoring Report, the term "average weekly" shall mean the highest average weekly value observed during the monthly monitoring period.
- D. If, in the opinion of the Department, the sewage treatment plant is no so operated or if by reason of change in the character of the waste or increased load upon the sewage treatment plant, or changed use or condition of the receiving body of water, or otherwise, that the effluent ceases to be satisfactory or the sewage treatment plant creates a public nuisance, then upon notice by the Department the right herein granted to discharge such effluent shall cease and become null and voiunless within the time specified by the Department, the permittee shal adopt such remedial measures as will produce an effluent which, in the opinion of the Department, will be satisfactory for discharge into the receiving body of water.
- E. The BOD5 in the raw wastewater shall be reduced by at least 86% as a monthly average in accordance with the requirements of the Delaware. River Basin Commission for Zone 3 of the Delaware Estuary. The percen removal shall be calculated from daily 24 hour composite sampling of the influent and effluent. The influent sample must reflect true characteristics of the raw wastewater and must not be affected by plat recycle flows.
- F. The following requirements shall apply with regard to implementation ( the required industrial pretreatment program.
- (a) The permittee shall operate an industrial pretreatment program in accordance with Section 402(b)(8) of the Clean Water Act and the General Pretreatment Regulations (40 CFR Part 403). The program shall also be implemented in accordance with the approved POTW pretreatment program submitted by the permittee.

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### PART C

#### OTHER REQUIREMENTS

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(b) The permittee shall submit to EPA and DER an annual report that describes the permittee's program activities over the previous 12 months. The permittee must also report on the pretreatment program activities of all participating agencies, if more than one jurisdiction is involved in the local program.

- (c) The report shall be incorporated into and submitted with the permittee's annual Municipal Wasteload Management report required by DER's Chapter 94 Rules and Regulations. The report shall include the following:
  - Compliance with Categorical and Local Standards A summary of the compliance status for those industries affected by final Categorical Pretreatment Standards.
  - 2) Review of Industrial Compliance Information on the number and type of major violations of pretreatment regulations, and the actions taken or planned by the POTW to obtain compliance.
  - 3) Summary of Industrial User Inspections A summary of the number and type of industrial user inspections by the POTW.
  - 4) Summary of POTW Operations Any interference, upset, or permitviolations experienced at the POTW directly attributable to industrial users, and actions taken to alleviate said events. Sampling and analysis of POTW influent, effluent, and sludge for toxic and incompatible pollutants shall also be included.
  - 5) Pretreatment Program Changes A description of any significant changes in operating the program from the original submission, including staffing and funding. An updated industrial survey shall be included, as appropriate.
  - 6) Other Miscellaneous Pretreatment Developments POTW facility changes, problems or improvements regarding sludge, water quality, data management, or any special concerns.
- (d) EPA and DER retain the right to require the POTW to institute changes to its local pretreatment program:
  - If the program is not implemented in a way satisfying the requirements of 40 CFR 403;
  - 2) If problems such as interference, pass through, or sludge contamination develop or continue;
  - 3) If other Federal, State or local requirements (i.e., water quality standards) change.

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### PART C

### OTHER REQUIREMENTS

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## G. <u>Water Quality-Based Effluent Limitations and Other Requirements for</u> <u>Management of Toxic Pollutants</u>

### a. Water Quality-Based Effluent Limitations

In addition to the effluent limitations shown in Part A of this permit, the Permittee is expected to achieve the water quality-based effluent limitations shown below.

No final date for compliance with these limitations is shown. The Department will modify this permit to establish a final compliance date, if necessary, upon the submittal by the Permittee and review by the Department of an acceptable Toxics Reduction Evaluation (TRE), or the failure of the Permittee to submit an acceptable TRE under the schedule established under Section G.b. of this Part C. The Permittee must submit the following requests, along with supporting documentation, to the Department at the time of submission of the TRE:

(1) A request for modification of water quality-based effluent limitations shown below; and/or,

(2) A request for an extension of time to achieve the water quality-based effluent limitations shown below; and/or,

(3) A request for alternative bioassay-based effluent limitations.

For purposes of compliance, effluent limitations listed in Part A of this permit apply unless changed by order, permit modification or other Department action.

Submittal by the Permittee of a TRE shall not be deemed to affect the appeal rights of the Permittee of final water quality-based effluent limitations upon action of the Department to make the limitations effective.

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## PART C

OTHER REQUIREMENTS

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### Outfall 001

Parameter	<u>Units</u>	Average Monthly	Maximum Daily	Instantaneous Maximum
Bervlium	mg/l	0.00025		0.0005
Zinc	mz/1	0.161	*	0.322
Cvanide Total	mg/l	0.444		0.888
Cvanide Free	mg/1	0.0111		0.0222
Phenolics (HAAP)	mg/1	0.0117	•	0.0237
Acrylonitrile	mg/l		0.0029	0.0204
Chlorobenzene	mg/l		70,099	
Chloroform	mg/l		0.0005	
1.2 Dichloroethane	mg/l		0.0465	
Methyl Chloride	mg/l		0.0094	
Trichloroethylene	mg/]		0.0083	
1.2 Trans-			0.0000	
Dichloroethylene	mg/l		0.0025	•
2-Chlorophenol	mg/l	-	0.0005	
Bis(2 Chloroethylether	mg/l		0.0015	
Phenanthrene	mg/l		Not Detect	able
Pvrene	$m_z/l$		Not Detect	able -
Alpha BHC	mg/1		0.00046	
3.3'Dichlorobenzidine	$m_z/l$		0.0005	

## b. Toxics Reduction Evaluation (TRE)

In order to (1) verify the actual extent of the toxic pollutants associated with the wastewater, (2) determine sources of these toxic pollutants, and (3) recommend control and/or treatment technologies to reduce or eliminate these toxic pollutants, the Permittee is directed to carry out a Toxics Reduction Evaluation (TRE) in accordance with guidelines developed by the Department.

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#### PART C

#### OTHER REQUIREMENTS

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The Permittee shall submit three (3) copies of the completed TRE to the Department for review in accordance with the following schedule:

Step

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		_		_	-

Begin Work on the TRE and so Notify the Department11/01/86Submit a Progress Report to the Department05/01/87Submit a Progress Report to the Department11/01/87Submit a Progress Report to the Department05/01/88Submit the Completed TRE to the Department11/01/88

## c. <u>Modification of Permit to Incorporate Water Quality-Based Effluent</u> Limitations for Toxic Pollutants

Upon approval of the TRE and any additional submittals for the above toxic pollutants of concern, the Department will modify Part A of this permit to reflect the effluent limitations, monitoring requirements, and other conditions necessary for compliance with water quality standards.

A permit modification may include a schedule of compliance. Any such permit modification will be conducted in accordance with applicable permit modification procedures, which include development of draft and final permits and associated public notification requirements.

## Procedures for Granting Extensions of Time to Achieve Water Quality-Based Effluent Limitations

At the request of the Permittee, in conjunction with modifying the permit to incorporate water quality-based effluent limitations under Subsection c. above, the Department may grant an extension of time to achieve the water quality-based effluent limitations shown in Subsection a. above, provided the Permittee meets all of the eligibility requirements contained in Section 95.4 of the Department's Rules and Regulations.

Requests for Section 95.4 time extension, including all documentation required to support such a request, must be submitted to the Department along with the Permittee's TRE as required under Subsection b. above.

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### PART C

#### OTHER REQUIPEMENTS

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## e. <u>Procedures for Demonstration of Alternative Site-Specific</u> Bioassay-Based Effluent Limitations

Where the water quality-based effluent limitations listed in this Part C have been developed by the Department for protection of fish and aquatic life, the Permittee may request an opportunity to demonstrate alternative, site-specific, bloassay-based "safe concentration values" for the pollutants in question.

The following water quality-based effluent limitations in this Part C are based on protection of fish and aquatic life:

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The procedures for carrying out such demonstrations shall be approved in writing by the Department, and shall be conducted in accordance with the requirements of Sections 93.8(d)-(e) of the Department's Rules and Regulations.

Requests for alternative, site-specific, bioassay-based effluent limitations, including all documentation required to support such a request, must be submitted to the Department along with the Permittee's TRE as required under this Part C.

Where the demonstration results in more stringent limitations than those established by the Department in this Part C, the more stringent limitations will apply. Any less stringent limitations which are approved by the Department shall not violate applicable criteria for the protection of human health. This procedure does not apply to those parameters for which specific numeric criteria are listed in Section 93.7, Table 3 of the Department's Rules and Regulations.

The approval herein given is specifically made contingent upon the permittee acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.

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### PART C

OTHER REQUIREMENTS

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I. Analysis for the following pollutant(s) shall be performed using the following test method(s) contained in the EPA publication entitled <u>Methods for Chemical Analysis of Water and Wastes</u>, or any approved test method(s) of equal or greater sensitivity.

Beryllium Cyanide, Total	EPA Method 210.2 (A:A., Furnace) EPA Method 335.2 (Spectrophometric)
Cyanide, Free	of Free Cyanide (Draft) 5/84)
Acrylonitrile	EPA Method 603 (GC_with FID)
Chloroform	EPA Method 601 (GC/Hal.)
Methyl Chloride	EPA Method 601 (GC/Hal.)
1,2-trans-	
Dichloroethylene	EPA Method 624 (GC/MS)
2-Chlorophenol	EPA Method 604 (GC/FID)
Trichloroethylene	EPA Method 624 (GC/MS)
Bis (2-Chloroethyl	· · · · · · · · · · · · · · · · · · ·
Ether)	EPA Method 611 (GC/Hal.)
Phenanthrene	EPA Method 610 (HPLC)
Pyrene	EPA Method 610 (HPLC)
3,3' Dichlorobenzidine	EPA Method 605 (HPLC)
Alpha BHC	EPA Method 608 (GC/ECD)

Point Sources 002 through 058 (listed below) serve as combined sewer reliefs necessitated by stormwater entering the sewer system and exceeding the hydraulic capacity of the sewers and/or the treatment plant and are permitted to discharge only for such reason. There are at this time no specific effluent limitations on these discharges. The regulating chambers shall be maintained in operable condition including regular monitoring and inspection of regulator controls within the combined sewer system and prompt repair or replacement of malfunctioning regulator controls. Results of the inspections (Interceptors Services Report) shall be submitted monthly as part of the Discharge Monitoring Report.

## Discharges to Delaware River

Point Source	Interceptor Regulator Name	Location	
	Somerset Collector	· .	
0C2 003	Castor Avenue (D-17) Venango Street (D-18) Tiors Street (D-19)	39°58'52"N 39°58'51"N 39°58'50"N	75°04'58''W 75°05'10''W 75°05'21''W
005 005 005	Ontario Street (D-20) Westmoreland Street (D-21) Allegheny Avenue (D-22)	39°58'47"N 39°58'44"N 39°58'44"N	75°05'31"W 75°05'40"W 75°05'40"W

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75°06'48'W

#### PART C GTHER REQUIREMENTS Point Interceptor Regulator Name Source Location 008 39°58'38"N (D-23) 75°06'11"W Indiana Avenue (D-24) 39°58'35"N 009 Cambria Street 75°06'25"W 010 Somerset Street (D-25) 39°58'35"N 75°06'25"W Upper Delaware Collector 40°01'20"N 75°01'46"W 011 Cottman Street (D-2) 012 40°01'13"N\_\_\_ Princeton Avenue (D-3) 75°02'00"W 013 Disston Street (D-4)40°01'07"N 75°02'13"W 014 40°00'58"N 75°02'35"W (D-5) Magee Street 40°00'53"N 015 Levick Street (D-6) 75°02'47"W 40°00'45"N 75°03'05"W 016 Lardner Street (D-7) 40°00'38"N 017 Comly Street (D-8)75°03'12"W 018 40°00'34"N Dark Run Lane (D-9) 75°03'18"W 019 Sanger Street (D - 11)40°00'21"N ~75°03'27"W 020 (D - 12)40°00'02"N Bridge Street 75°03'42"W 021 Kirkbridge Street (D-13) 39°59'52"N 75°03'47'W 39°59'24"N 022 Orthodox Street (D-15) 75°04'04''W Discharges to Pennypack Creek Upper Pennypack Collector System 023 Frankford Avenue & Ashburner Street 75°01'15"W (P-1) 40°02'37"N 024 . Frankford Avenue & Holmesburg Street (P-2) 40°02'37"N 75°01'16"W 025 Torresdale Avenue N.W. of (P-3)40°02'13"N Pennypack Creek 75°01'19"W 026 Cottage Avenue & Holmes-(P-4)75°01'21"W burg Avenue 40°02'22''N 027 Holmesburg Avenue S.E. of Hegerman Street (P-5) 40°02'01"N 75°01'21"W Discharges to Tacony Creek Frankford High Level Collector System 028 Williams Avenue S.E. of Sedgewick (T-1) - 40°04'36"N 75°09'32"W Champlost Avenue W. of 029 Tacony Creek (<u>T-3</u>) 10°02'30"N 75°07'04''W

Rising Sun Avenue E. of

Tacony Creek

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40°02'12"N

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## PART C

## OTHER REQUIREMENTS

Point	Interceptor		
Source	Regulator Name	Location	
031	Rising Sun Avenue W. of		
	Tacony Creek (T-5)	40°02'09"N	75°06'48''W
032	Bingham Street E. of		- · · ·
•	Tacony Creek (T-6)	40°02'03"N	75°06'41''W
033	Tabor Road W. of Tacony		
	Creek (T-7)	40°01'51"N	75°06'42''W
034	Ashdale Street W. of	•	
-	Tacony Creek (T-8)	40°01'41"N	75°06'46''W
035	Roosevelt Blvd. W. of		
	Tacony Creek (T-9)	40°01'37"N	75°06'48''W
036	Roosevelt Blvd. E. of	-	
-	Tacony Creek (T-10)	40°01'37"N	75°06'47''W
037	Ruscomb Street E. of		
	Tacony Creek (T-11)	40°01'28"N	75°06'42''W
038	Witaker Avenue E. of		,
	Tacony Creek (T-12)	40°01'23"N	75°06'42''W
030	Witaker Avenue W. of		
· • • •	Tacory Creek (T-13)	40°01'22"N	75°06142"W
UNU	T Street & Ramona Avenue(T_1)	4)40°00158"N	75°06'27'W
041	J Street & Juniata Pk (T_1)	5) <u>איי 57י 00</u> 00	750051000
w 11	- Correct Commence the (1-1		10 00 19 1

## Discharges to Frankford Creek

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## Upper Frankford Creek Low Level

042	Castor Avenue at Uni	ty		•
	Street (Circle)	(F-3)	40°00'57"N	75°05'51''W
043	Wingohocking Street	E. of		
•	Adams Avenue	(F_4)	40°00'53"N	75°05'41''W
Ойй	Bristol Street W. of	•		
	Adams Avenue	(F-5)	40°00'40"N	75°05'41''W
045	Worrel Street E. of			• •
	Frankford Creek	(F_6)	40°00'26"N	75°05'32"W
045	Worrel Street W. of			
	Frankford Creek	(F-7)	40°00'25"N	75°05'34''W
047	Erie Avenue & Huntin	S		
	Park Avenue	(F-8)	40°00'21"N	75°05'36"W
048	Frankford Avenue N.	of	<b>.</b> .	
	Frankford Creek	(F-9)	40°00'20"N	-75°05'34"W
049	Frankford Avenue S.	0f		
	Frankford Creek	(F-10)	40°00'19"N	75°05'35"W
050	Paul Street S. of Va	ndyke	•	
	Street	(F-11)	40°00115"N	75°05'25"W
051	Sepviva Street N. of			
	Butler Street	(F-12)	39°59155"N	75°05'13"W

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Page	141	of	14
PA	002	6689	

## PART C

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	Point Sourc	. Interceptor e Regulator <u>Name</u>		Location	
		Lower Frankford Creek	Low Lev	<u>el</u>	
	052	Dúncan Street (under I Exp.)	Del. (F-13)	40°00'15"N	75°04''57''W
	053 054	Bristol Street(cemetar Wakeling Street N.W. o	∽y)(F-14 of	)40°00'15"N	75°04'57''W
	055	Creek Basin Bridge Street N.W. of	(F-21)	40°00′15" <u>N</u>	75°04'57"W
•	055	Creek Basin	(F-23)	40°00'18"N	75°04'05"W
	050	Creek Basin	(F-24)	40°00'19"N	75°04'05"W
	05,1	Asn Street West of Creek Basin	(F-25)	40°00'15"N	75°04'51''W
	Disch	arges to Delaware River		· ·	/
		Upper Delaware Collect	lor		
	058	Wakeling Street Relief	Sewer	40°00'29"N	75°03'19"W
	К.	. The permittee shall operate the sewage treatment plant to provide treatment for the maximum design wastewater flows of 315 MGD (maximum daily average) and 420 MGD (peak) without causing treatment process upsets. Throttling of influent flows to the plant resulting in avoidable, premature sewer system overflows is prohibited.			
	Ľ.	An average monthly flow in be a violation of this perm	excess nit.	of 210 MGD sha	ll not be considered to
	M. The mass limitation for BOD5 shall not become effective until January 1, 1989. During the period January 1, 1987 through December 31, 1987 influent data (without impact of recycle streams) and effluent data shall be collected relative to BOD5 (uninhibited) on a daily basis and First Stage Oxygen Demand (FSOD) on a twice per week basis. This data base will be used to determine whether the existing FSOD allocation, the equivalent BOD5 mass effluent limitation and/or the current FSOD/BOD5 ratio should be revised. Progress reports shall be submitted to the Delaware River Basin Commission and the Department by April 30, 1987 and September 30, 1987. A final report shall be submitted to the same agencies on or before March 31, 1988.				

2NPDW5.2.9

## Additional Instructions for Utilizing The National Pollutant Discharge Elimination System DISCHARGE MONITORING REPORT

The attached originals of the NPDES Discharge Monitoring Report have been provided to you as a master. The permit establishes specific effluent monitoring and reporting requirements and these values are repeated on the original Discharge Monitoring Report provided for you. The "N/A" placed in the permit condition block of the Discharge Monitoring Report indicates one of two things (1) that the parameter is monitored but no limitations are imposed, and the pertinent value must be reported; or (2) that the parameter is limited elsewhere the Discharge Monitoring Report, and the value should be reported if it is available.

Your reports are to be submitted by utilizing copies of the attached forms Do not write on or send the attached originals, but rather: (1) make copies of them, (2) fill out the copies as appropriate, (3) make the necessary copies of the completed (filled out) form, and (4) submit these copies to the appropriat EPA and State Offices as provided in the permit.

3W347.3

しきん Í. LALA CALFAILE CARA 2/11/88 DATE ċ \* Master Consent Decree Circulation List \* Pamela Foa, Divisional Deputy City Solicitor Consent Decree Filing Please be advised that the Consent Decree Amendment was filed with the Court today and should become effective in 30 days, i.e., March 🕰 1988. 1.2 PF/rf Seymour Kurland cc: Henry Diamond RITA - Placese make Copies For: • MSC • J. Coyne • A Forcestrom RESPONSE TO THIS MEMORANDUM MAY BE MADE HEREON IN LONGHAND 3/59)

## CONSENT DECREE MASTER CIRCULATION LIST

7	1.	William J. Marrazzo
	2.	Patrick R., Cairo
	3.	Kumar Kischinchand
	4	Ronald Coy
	5.	Joan Fredette
. •	6.	Bruce Aptowicz
-	7.	William Wankoff
	8.	Dick Roy
	9.	Bob Wilkinson
. 3	L0.	Faulkner Edmonds
	11.	Tom Healey
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IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF PENNSYLVANIA

CITY OF PHILADELPHIA, Plaintiff, v.

Defendants.

EPA, et al.,

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CIVIL ACTION NOS. 78-878, 78-1732, 78-1733, 78-1851

## AMENDMENT

This Amendment amends a Consent Decree approved and entered by the Court herein on September 26, 1979 ("Consent Decree"). Except to the extent of provisions herein to the contrary, the parties agree that the Consent Decree and its stipulations prior to the date of entry of this Amendment shall remain in full force and effect.

Petitioner United States of America, on behalf of the United States Environmental Protection Agency ("EPA"), filed a Contempt Petition on August 8, 1986, against Respondent City of Philadelphia ("City"), a municipal corporation of the Commonwealth of Pennsylvania, alleging violation of various provisions of the Consent Decree. The City cross-filed a Motion for Resolution of Disputes under the Consent Decree on September 2, 1986 alleging that it had complied with the provisions of the Consent Decree and seeking return to the City of interest income accumulated in the Philadelphia Environmental Trust Fund ("Trust Fund"). The United States also alleged that added elements of construction were needed for the City's Northeast Water Pollution Control Plant ("Northeast Plant") to meet final effluent limitations on a permanent and consistent basis and to permit treatment of design flows. The City argued that construction undertaken to date permitted the Northeast Plant to achieve secondary treatment but not reliably to maintain it. The City concurs that additional elements should be constructed to assure consistent compliance and to permit treatment of design flows, and to improve solids handling capabilities at all three of the City's water pollution control plants.

-2-

Even though they agree on the incomplete status of the Northeast Plant, the parties have agreed that in the interest of maintaining the highest level of water quality, all effluent limitations contained in Part A of the NPDES permit and in effect at the time of entry of this Amendment shall remain in effect during the term of this Amendment until termination under Section XI(A). The parties agree that the incomplete status of the Northeast Plant and of the sludge handling facilities will be considered in evaluating any violation of those effluent limitations.

> The parties agree that settlement of these matters without further litigation is in the public interest and that entry of this Amendment is the most appropriate means of resolving these matters.

NOW, THEREFORE, without admitting liability and without trial of any issue of fact or law, and upon the consent of the parties, by their attorneys and authorized officials, it is hereby ORDERED, ADJUDGED and DECREED as follows:

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# I.

## JURISDICTION

This Court has jurisdiction of the subject matter and of the Parties consenting hereto for the purpose of entering this Amendment to the Consent Decree.

## APPLICABILITY AND EFFECT .

II.

A. The provisions of this Amendment shall apply to and be binding upon the parties hereto, their respective elected and appointed officials, officers, directors, agents, servants, employees, successors, assigns and attorneys, and upon all those persons, firms and corporations acting under, through or for them, and upon those persons, firms and corporations in active concert or participation with them.

B. This Amendment constitutes a full and complete settlement of all civil claims asserted in the United States' Contempt Petition filed August 8, 1986, or which could have been asserted in that Petition with respect to the Northeast Plant under the 1979 Consent Decree, all civil claims asserted in the City's Motion for Resolution of Disputes filed September 2, 1986, and all claims expressly reserved in the stipulation filed December 15, 1983 regarding the City's Southwest Water Pollution Control Plant. It is understood and agreed that the City's Southwest Plant is released from the provisions of Paragraph V of the 1979 Consent Decree, and from all liability under or resulting from that paragraph. This Amendment in no way affects the rights, responsibilities and remedies of the parties under any NPDES permit for the Southwest Plant, or any proceedings relating to any such permit.

## III.

### COMPLIANCE WITH OTHER LAWS

A. This Amendment is not and shall not be interpreted to be a permit, or a modification of an existing permit, under Section 402 of the Clean Water Act, 33 U.S.C. § 1342. Any new permit, or modification of the existing permit, must be issued in accordance with applicable federal and state laws and regulations.

All effluent limitations contained in Part A of the Β. NPDES permit for the Northeast Plant shall be regulated by this Amendment until the occurrence of the events described in Section XI(A). In all other respects, the City shall comply with the terms and conditions of the Clean Water Act, NPDES Permit No. PA0026689, and any modifications or reissuance of this permit or any subsequently issued permit governing the Northeast Plant, and any other federal or state law pertaining thereto; provided, however, that the United States and the state will seek no penalties or contributions to the Trust Fund other than those provided in this Amendment for any violation of final effluent limitations at the Northeast Plant, occurring prior to the occurrence of the events described in Section XI(A); that the United States and the state will seek no penalties or contributions to the Trust Fund other than those provided in this Amendment for any violation of any compliance schedule established in Section IV of this Amendment, until termination under Section XI(B); and provided further that the parties understand that certain provisions of the permit are under appeal, that these provisions may be suspended during that appeal, and that as a result of the appeal these provisions of the permit may be deleted or changed. This Amendment shall have no effect on any permit appeal, except as specifically provided herein.

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and in the

## REHABILITATION AND CONSTRUCTION COMPLETION

A. With respect to the following project segment at the Northeast Plant, the City shall comply with the following schedule:

	Construction Completion	On Line and In Operation	
Final Tank Modifications	·6/1/89	6/1/90	

B. With respect to the following project segments which will provide treatment for the sludge produced by the Northeast .--Plant as well as the City's Southeast and Southwest Water Pollution Control Plants, the City shall comply with the following schedule:

		Construction Completion	On Line and In Operation	
، سری افغانی	Sludge Composting	10/15/88	10/15/89	
•	Sludge Dewatering	8/1/89	8/1/90	
•	Sludge Transport System	5/1/89	8/1/90*	

\* The parties recognize that the Sludge Transport System cannot be demonstrated to be On Line and In Operation until the Sludge Dewatering project segment is placed in operation at sufficient capacity to process all sludge transported under the Sludge Transport System On Line and In Operation Test.

C. With respect to the schedules set forth in subsections (A) and (B), above, the following definitions shall apply:

1. "Construction Completion" is achieved when all essential components of a project segment have been installed and when that project segment is ready to be tested by the contractor, regardless of when it has in fact been tested.

## IV.

-6-

 2. "On Line and In Operation" shall, with respect to each project segment identified in subsections (A) and (B), above, be defined as provided in Exhibit A to this Amendment.

3. The "Sludge Transport System" is defined to include the following elements: Northeast Sludge Transfer Station, Two Sludge Barges, and Docking Facilities at both the Northeast and Southwest Plants.

D. The City shall complete the rehabilitation and construction project segments identified in subsections (A) and (B), above, according to the schedules contained therein, subject to any extensions granted pursuant to the Consent Decree or this Amendment.

E. Throughout the period of this Amendment, the City shall use best efforts to comply with all final effluent limitations. EPA and the City\_recognize that flows may currently be limited due to the hydraulic restrictions resulting from the rehabilitation of the existing final tanks. Until such rehabilitation is completed, the City shall use best efforts to treat all flows to the Northeast Plant, consistent with those hydraulic restrictions. Jonce rehabilitation of the Final Tanks is completed, the City will use best efforts to treat all flows up to design capacity, consistent with the City's efforts to bring the rehabilitated Final Tanks On-Line and In Operation.

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F. Bypassing is prohibited except in accordance with the provisions of the NPDES permit as stated in paragraph H(2) of Part B and upon application to and approval by the Delaware\_River Basin Commission (DRBC) if it can be reasonably anticipated that DRBC water quality standards or effluent limitations would be violated. Reporting of such bypasses shall be in accordance with those provisions.

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In addition to the reporting requirements in the permit, the following additional information shall be reported for any throttling incidents that result in bypass at the time of the DMR submission:

1) Date of each incident,

2) Time and duration of each throttling incident or the time and duration of the bypass itself if that information is available for the specific period of the bypass.
 3) Plant flow rate at both the beginning and the end of the throttling incident or the flow rate at the beginning and end of the bypass if that information is available for the specific period of the bypass, and

4) The basis for the need to throttle at the reported flow rate during each throttling incident.

#### ν.

## PHILADELPHIA ENVIRONMENTAL TRUST FUND

In recognition of the Trust Fund as a unique and extraordinary

vehicle for funding environmentally beneficial projects, and because of their mutual interest in promoting the City's water pollution abatement program and in accomplishing environmentally beneficial projects relating to water or wastewater treatment, the parties understand and agree as follows:

A. The City argues that the City is authorized to use the interest which has accrued in the Trust-Fund to pay any penalties owed by the City under the Consent Decree. The United States argues that the City must deposit additional sums representing any penalties into the Trust Fund, and that all interest must be used for environmentally beneficial projects relating to water or wastewater treatment. The parties now agree that the current interest balance in the Trust Fund, which is in excess of \$2,300,000, will be expended for the environmentally beneficial projects described in Exhibit B..

Upon entry of this Amendment, there shall be released to the City from the Trust Fund the sum of \$1,351,100 to carry---out the Trust Fund project listed as Exhibit B(1). The balance of the interest shall be made available to the City as costs are incurred on the projects.

B. Upon entry of this Amendment the City will make an additional contribution of \$240,000 to the Trust Fund to carry out the environmentally beneficial project described in Exhibit C.

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C. Hereafter, all accumulations of interest. income in the Trust Fund shall be deemed to constitute principal and shall be used for environmentally beneficial projects.

D. It is understood and agreed that with respect to payments for Trust Fund projects listed in Exhibit B 2-6, and Exhibit C, the City shall, upon receipt of any billing or invoice pertaining to any such project, examine and certify to the trustee the accuracy of said billing\_or invoice, whereupon the trustee shall release funds from the Trust Fund in the amount certified in direct payment of such billing or invoice.

E. The City shall submit to EPA on an annual basis a report specifying the balance of monies in the Trust Fund, the amount of monies withdrawn from the Trust Fund during the previous year, the amount of money expended on each Trust Fund project and the progress the City has made during the previous year towards completing the Trust Fund projects.

## VI.

## ADDITIONAL CONTRIBUTIONS TO THE TRUST FUND

## A. Construction Schedule

If the City fails to comply with any schedule contained in Section IV(A) or (B) of this Amendment, upon demand by EPA, the City shall incur stipulated penalties or draw upon credit available under Section VI(F)(2) in the following amounts for each violation of each applicable requirement in accordance with the following schedule:

Period of Non-Compliance	Penalty Per Day
lst day to 60th day	\$100
61st day to 120th day	\$300
121st day to 180th day	\$1,000
181st day to 300th day	\$5,000
Each day beyond the 300th day	\$10,000

B. If the City incurs a stipulated penalty under subsection (A), above, for failure to meet any milestone date in Section IV(A) or (B), no other or additional penalty shall be incurred for failure to meet a subsequent milestone date for the same element attributable to the delay for which the initial penalty was incurred, provided, however, that this period of exemption from further penalties shall not exceed the actual number of days by which the initial milestone was missed.

C. Any penalty required to be paid under subsection (A), above, for failure to achieve any milestone date in Section IV(A) or (B) shall be forgiven entirely upon the City's achievement of any subsequent milestone date for the same element.

D. If the City is unable to demonstrate that a project segment identified in Section IV(A) or (B) is On Line and In
Operation as of the deadline set forth in that section, the City may apply to EPA for an extension of that deadline for up to six (6) months. EPA shall grant the extension for that project segment if both of the following conditions are met:

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(1.) if, during the entire period of the extension, the effluent from the Northeast Plant meets the limits of 30 mg/l for monthly averages of BOD<sub>5</sub> and suspended solids, unless the contributions to the Trust Fund for violation of such effluent limitations are excused pursuant to Section IX(C) of this Amendment; and

(2.) if, during the period of this extension, the City begins a successful On Line and In Operation performance demonstration for such project segment.

The City shall promptly notify EPA that the project segment for which the extension has been sought has achieved the On Line and In Operation milestone.

If the extension is granted under these conditions, and the On Line and In Operation milestone is achieved, then any penalty incurred under subsection (A) above shall be forgiven entirely with respect to such project segment.

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## E. Effluent Limitations

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 From the date of entry of this Amendment to the termination under Section XI, with respect to the Northeast Plant, the City shall comply with all effluent limitations set forth in subsection E(3), below.

2. Within thirty (30) days after July 1, 1988 and annually thereafter, the City shall submit to EPA a report setting forth the effluent limitations achieved at the Northeast Plant and the construction progress made during the prior year with respect to the elements identified in Sections IV(A), IV(B) and VII. The City may set forth such narrative---as it believes appropriate in presenting such operation and construction performance, including a description of the circumstances resulting in failure to achieve any final effluent limitation. Nothing in this paragraph shall alter the City's obligation to submit discharge monitoring reports (DMRs) to EPA, DER and DRBC on a monthly basis.

3. Upon receipt of said report EPA may, upon demand, require the City to make a contribution to the Trust Fund or draw upon any credit available under Section VI(F)(2) in

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an amount up to but not to exceed one hundred and twenty thousand dollars (\$120,000) for effluent limitation violations during the year covered by the report. EPA shall reduce the amount of the contribution demanded by ten thousand dollars (\$10,000) for each month during said year during which the City (a) was in compliance with the final effluent limitations in its NPDES permit for the Northeast Plant for the 30-day average BOD5 concentration, the 30-day average suspended solids concentration, the 30-day geometric average fecal coliform limitation, the pH limitation and the 30-day average zinc concentration; and the maximum daily concentrations of acrylonitrile, 1,2 dichloroethane, bis(2 chloroethyl ether) and alpha BHC; (b) was excused from any such violation pursuant to the terms of this Amendment; or (c) is not, as a result of EPA's exercise of discretion, required to contribute such amount to the Trust Fund on account of the incomplete status of the facility. EPA's demand for contribution will be accompanied by a statement of reasons. Upon such demand by EPA, the City shall deposit into the Trust Fund such additional contribution. Within the next thirty (30) days the City shall propose and EPA shall promptly approve additional projects EPA deems appropriate for inclusion as Trust Fund projects to the extent necessary to expend any additional contributions required under this paragraph and any interest accumulated to date in the Trust Fund.
F. Designation of Additional Trust Fund

# Projects

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A CONTRACTOR

The parties have agreed upon a list of Trust
 Fund projects set forth in Exhibits B and C to Section V.
 The City may propose additional projects to be added to this
 list from time to time, subject to EPA's prompt approval.

2. The parties agree that because it may be useful to undertake environmentally beneficial projects prior to an assessment by EPA of the need for additional payments to the Trust Fund, the City may undertake such agreed upon projectsprior to a requirement for contributions to the Trust Fund, if EPA approves such projects before the City undertakes them.

3. With respect to any approved amount for any approved Trust Fund project which is in excess of that required to be paid into the Trust Fund for such project, the sum expended on such projects shall be deemed a credit to the City upon which it may draw at its option to fulfill any existing or future obligation to make contributions or to pay penalties to the Trust Fund.

G. Construction Interference with Effluent Quality

The parties recognize that during reconstruction of the project segments and/or the conduct of the tests identified in Sections IV(A), IV(B), and VII, disruption of the treatment process may occur, including disruption caused by reconstruction of the primary tanks. The parties agree that if the City is able to anticipate such disruptions it shall, prior to the time they occur, submit to EPA a report setting forth (1) the cause of the disruption, (2) its duration, (3) its impact on effluent quality, and (4) the available operational procedures to minimize the effect of the disruption on effluent quality. If the disruption cannot be reasonably anticipated, the City will provide notice of the same factors within 14 days after it has knowledge of the disruption. All relevant factors, including disruption caused by the primary tanks reconstruction, shall be taken into account by EPA in the exercise of its discretion and by the Court in enforcing any violations of the effluent limitations under subsection (E).

#### VII.

#### EXISTING PRIMARY TANKS

A. The parties agree that for long-term, consistent compliance with permit limitations it will be desirable to rehabilitate the existing primary tanks at the Northeast Plant by the most efficient and cost effective means. The City hereby commits to carry out a program (the "Rehabilitation Plan" or "Plan") designed to continue the operation of the existing primary tanks at the Northeast Plant for the period of the remaining useful life of the Plant. Prior to the implementation of the Rehabilitation Plan described below, the City shall use best efforts to operate and maintain the primary tanks. The Rehabilitation Plan for the primary tanks shall include but not necessarily be limited to: concrete repair and reconstruction; replacement of all chains, flights and sprockets; renovation of sludge pumps; modification of electrical system to 3-phase power; and improvement of tank drainage: -

The City agrees to develop the Rehabilitation Plan в. including a schedule within 150 days after entry of this Amendment and to submit the plan to EPA and the Pennsylvania Department of Environmental Resources (DER) for approval. The Plan shall be developed with consideration of all relevant factors, including environmental impact, current condition, anticipated costs, financial capacity, possible standard operational changes to mitigate any environmental impact, and the likelihood that it will facilitate long-term, consistent compliance with applicable permit limitations. The parties agree that the general scope of the plan is described in a submission from Greely and Hansen appended as Exhibit Upon approval by EPA and DER the City shall carry-out D. the Rehabilitation Plan, such approval not to be unreasonably withheld.

C. The parties recognize that it is not possible to predict the sequence of rehabilitation activities prior to development of the Rehabilitation Plan. Therefore, it is agreed that, upon development of the Rehabilitation Plan, the parties will identify the action or event which first evidences the City's commitment to physically implement the Rehabilitation Plan (the "Event"); provided, however, that the Event is one which is to occur no later than 90 days after the City has successfully demonstrated that the Final Tanks are On Line and In Operation.

The occurrence of the Event by the City shall be, pursuant to Section XI, a prerequisite to the termination of this Consent Decree, as amended, but shall not be subject to stipulated penalties under the Consent Decree, as amended.

D. The parties recognize and agree that the Northeast Plant is incomplete and, therefore, not capable of consistent compliance with all of the plant's final effluent limitations at design flow. The parties recognize that the Rehabilitation Plan for the existing primary tanks may have a further adverse impact upon the effluent quality attainable by the Northeast Plant. Therefore:

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1. EPA, in assessing the requirement for additional contributions for any effluent limitation violations at the Northeast Plant, will take into account the incomplete status of that facility, the actions taken by the City to maintain effluent quality and the impact upon effluent quality of all obligations undertaken by the City pursuant to this Amendment, including without limitation the obligation to carry out the selected rehabilitation alternative for the existing primary tanks.

2. DER and the City agree that continuing construction of the primary tanks after termination may have an impact on the ability of the plant to achieve final effluent limits. If DER and the City agree that this situation obtains notwithstanding that the City is taking all reasonable steps to comply with effluent limitations, these parties agree to negotiate appropriate regulatory recognition of such impacts in a timely manner prior to termination.

3. DRBC and the City agree that continuing construction of the primary tanks after termination may have an impact on the ability of the plant to achieve final effluent limits. If DRBC and the City agree that this situation obtains notwithstanding that the City is taking all reasonable steps to comply with effluent limitations, these parties agree to negotiate appropriate regulatory recognition of such impacts in a timely manner prior to termination.

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E. The City hereby commits at least 2.5 million in FY'89 to carry out the Rehabilitation Plan. In subsequent years the City shall commit the amount required as an expenditure by the schedule for the Rehabilitation Plan. Should funds so committed for the Plan be unexpended in any fiscal year, the unexpended balance will be placed into an special account to be used exclusively for the rehabilitation described in the Plan until completion of the Plan. Interest accrued on the funds committed to the Rehabilitation Plan shall be expended to carry-out the Rehabilitation Plan.

F. The parties recognize that changed conditions relating to condition of the primary tanks at the Northeast facility could result in a need to modify or to reorder the Plan, priorities within the Plan, or other provisions of this Amendment related to the functioning of the primary tanks. Should such conditions occur prior to the termination of the Consent Decree, as amended, no modification of the Plan shall be put into effect without the prior consent of EPA and DER.

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#### VIII.

# COORDINATION, FACILITATION AND MONITORING

The parties agree that improvement of coordination among the parties and assistance by the regulatory agencies in obtaining necessary permits will facilitate the achievement of the goals of the Consent Decree and this Amendment. Therefore, the parties agree to the following:

A. The parties agree to use their best efforts as appropriate to facilitate the obtaining of necessary permits.

. B. Periodic Reports

1. The City will prepare Critical Path Method ("CPM") analysis including network diagrams for the construction elements identified in Sections IV(A) and (B), and submit such analyses to EPA and DER. The information submitted by the City shall contain the level of detail necessary to facilitate management of the entire construction program, as well as the individual phases of the program. It will identify all steps which remain to be taken to complete the task, the order in which the steps must be completed,

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the interrelationship of steps, and an identification of those steps which control task completion. The CPM's shall be updated every month and submitted to EPA and DER on the last day of each month for the preceding month as long as construction continues.

2. By the time that each of the construction elements identified in Sections IV(A) and (B) is 50% complete, the City will provide to EPA and DER a report identifying a detailed plan for the staffing, training, startup and testing of each of these construction elements. These reports will outline assumptions and discuss the interrelationship of various construction elements. They shall provide a logical plan for phasing in the operation of each of the construction elements, and shall include an implementation schedule for the staffing, training, start-up and testing of each of the construction elements. The City shall provide semi-annual updates of the progress made toward achieving the plan identified in the initial report.

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# EXTENSION OF CONSTRUCTION MILESTONES AND RELIEF FROM EFFLUENT VIOLATIONS

IX.

A. If any milestone in Sections IV(A), IV(B) or VII of this Amendment has not been achieved, the City shall submit to EPA a written report no later than 30 days following the date for the achievement of the milestone. The report shall include:

- a complete description of any factors which explain the failure including all necessary documentation;
- a description of the actions taken or proposed to be taken to comply with the missed milestone;
   the date by which the milestone will be achieved;
- a description of any future milestone which may be affected by the present failure;

5. the date by which any affected future milestone(s) will be achieved; and

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5,

6. the actions that could be taken to prevent violations of future milestones.

B. No later than thirty (30) days after any missed milestone in Sections IV(A), IV(B) or VII of this Amendment, the City shall apply in writing to EPA for\_any extension which the City feels is justified\_under the terms of this Amendment. The application for an extension shall describe in detail the length of time-of the requested extension, the precise circumstances creating the delay and justifying the request, the measures taken and to be taken by the City to minimize the effect of the delay, and a timetable by which any such future measures will be implemented. EPA shall promptly respond to extension requests.

C. The City shall be excused as to any violation of effluent limitations in Section VI(E), or any delay for which an extension of any milestone in Sections IV(A), IV(B) or VII of this Amendment is sought, if the City and EPA agree that such violation of effluent limitations or delay in a milestone has been caused by circumstances beyond the control of the City. In that event, payment to the Trust Fund shall not be due for said violation or delay. Where an extension is agreed to for a milestone set forth in Sections IV(A), IV(B) or VII, the time for achievement of such date shall be extended for a period not to exceed the total actual delay in achieving such requirement that is caused by the circumstances beyond the control of the City. Circumstances beyond the control of the City include, but are not limited to, such events as acts of God, strikes by City or contractor employees, and failure of any regulatory authority to take action for which the City has timely, accurately and completely applied and which the City can prove is necessary for it to meet its obligations under this Amendment. Circumstances beyond the control of the City do not include increased costs or expenses.

D. In the event that the City and EPA do not agree on whether a violation of effluent limitations or a delay in a milestone has been caused by circumstances beyond the control of the City, either party may submit the matter to this Court for resolution.

E. The City shall at all times bear the burden of proving that any delay or effluent violation was caused by circumstances beyond the control of the City.

#### Χ.

#### DIGESTER STUDY

The parties have agreed that the City shall undertake a study to determine whether additional digester capacity is required at the Northeast Plant. This study shall be conducted pursuant to the methodology proposed by the City and approved by EPA and DER. Upon completion of the study, the parties will review it and discuss whether such additional capacity

-25-

is necessary. If additional digestion capacity\_is determined to be necessary, the parties will agree on a schedule for construction/rehabilitation with which the City will comply. If the need for additional digestion capacity is confirmed, the digester modifications are expected to be available for 75% federal grant funding based on the availability of federal grant funds since it would be a segment of the overall Northeast Plant grant project. The construction/rehabilitation of the digesters, if necessary, shall not be subject to stipulated penalties under this Amendment.

## \_XI.

#### TERMINATION

A. Once the City demonstrates that the Final Tanks at the Northeast Plant are On Line and In Operation, the NPDES permit will regulate compliance with effluent parameters at  $p_{12}^{(1)}$ the Northeast Plant except to the extent provided in VII(D)(2). At that time, Section VI(E) of this Amendment will terminate.

B. This Amendment shall terminate when the City has
(1) demonstrated On Line and In Operation performance of the project segments identified in Section IV(A) and (B);
(2) accomplished the action or certified to EPA the occurrence of the event to be identified pursuant to Section VII(C); and
(3) certified to EPA that construction of additional digester capacity, if determined necessary, has commenced.

# EXHIBIT À

### On-Line and In Operation Definitions

\_\_\_\_\_The following criteria will be used to determine compliance with the On-Line and In Operation milestones identified in Section IV (A) and (B) of this Amendment. The elements will be considered On-Line and In Operation when the City demonstrates the following:

#### 1) Final Tank Modifications

a) The achievement of construction completion

#### and

b) the proper operation of the modified final tanks up to the design hydraulic limits for a period of 90 consecutive days, while maintaining compliance with the monthly average effluent limitations for suspended solids and BOD5. During this period the modified final tanks shall treat their proportionate share of wastewater; with any 6 of the 8 tanks in use, and any 2 of the 3 return sludge pumping systems being available for operation throughout this period. If primary\_tank\_rehabilitation under the Rehabilitation Plan has begun at the time of the Final Tank On-Line and In-Operation test, the requirement for meeting the monthly average effluent limitations for suspended solids and BOD<sup>5</sup> shall not be required as part of a successful On-Line and In-Operation Test.

2) Sludge Composting

a) The achievement of the construction completion milestone;
 and

#### -21-

b) the proper operation of the composting <u>facilities</u> for a period of 90 consecutive days during which the following proportion of related equipment will be available for operation:

i) any 30 out of 40 blowers, and

ii) any 4 of 6 trommels, and

iii) any 2 of 3 mixers.

3) Sludge Dewatering

a) The achievement of construction completion and

b) the ability of the new dewatering facilities to process all of the sludge produced by the City's Northeast, Southeast and Southwest Treatment Plants for a period of 90 consecutive days. During this period the facility shall produce a sludge cake containing at least 17% solids and maintain a solids capture of at least 90%. Any 7 of the 10 centrifuges must be available for operation throughout the test period.

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Sludge Transport System

a) The achievement of construction completion; and

b) the proper operation of the sludge transport system for a period of 90 consecutive days during which all of the sludge produced by the Northeast Plant shall be transported to the Southwest Plant for dewatering. .

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ATTACHMENT A

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Hancock Street from Thompson Street to Oxford Street

Sewer reconstruction and water main renewals are proposed for two blocks. In both blocks the exiting 2'-3" X 1'-6" brick sewer constructed in 1892 and 1895 respectively were found to be in poor condition and recommended for reconstruction. These existing sewers will be replaced by lengths of 615' of new 18" dia. and 250' of 21" dia. rein-forced concrete sewer pipe. The existing 6 inch dia. cast iron water mains originally installed in 1845 and 1853 respectively within these streets will also be renewed due to deteriorating condition and interference with sewer reconstruction. A total length of 825 feet of new 8" dia. ductile iron water main will replace these existing water line. New water services for each property will be included in the contract. It is estimated that 15,000 gallons per day of leakage and dry weather inflow will be eliminated as a result of this project. The added benefit of water main replacement will be elimination of lead service lines to the homes in these blocks. Estimated cost for this sewer and water main renewal project is \$240,000.

IN THE UNITED STATES DISTRICT COURT -

CITY	OF	PHILADELPHIA,	` <b></b>	
,	•	Plaintiff,	:	CIVIL ACTION N
1		۷.	:	78-878, 78-173
EPA,	et	al., '	:	
		Defendants	:	

REQUEST TO FILE CERTAIN EXHIBITS UNDER SEAL

The United States requests the filing under seal of the attached copies of Exhibits B, C and D to the Amendment to the 1979 Consent Decree lodged with the Clerk of Court on this date. Exhibits B, C and D, as attached to the Amendment as public records, contain descriptions of projects to be - undertaken using Trust Fund monies. The copies of these Exhibits to be filed under seal include those descriptions, and in addition the estimated costs of each project. The costs are filed under seal to avoid influencing the bidding on the Trust Fund projects.

Counsel for the other parties to this Amendment have consented to this request.

Respectfully submitted,

EDWARD S. G. DENNIS, JR. United States Attorney

JAMES G. SHEEHAN Assistant United States Attorney Chief, Civil Division

OS. 2, 51

CATHERINE VOTAW Assistant United States Attorney

#### EXHIBIT B

# 1. Northeast Drainage District Sewer Construction and Nater Main Renewal

The environmental benefit of this undertaking is to eliminate the threat to groundwater and surface activities from sewer and water main failure. In addition, this work should reduce infiltration to the Northeast Plant in excess of 90,000 gallons per day.

Location	_ <u>Esti</u>	imated Cost
Clearfield Street, from 17th to Bancroft Streets, and 17th Street, from Indiana Street to Clearfield Street	· \$	678,200
Ontario Street, from Broad Street to 16th Street, and Sydenham Street, from Westmoreland Street to Ontario Street		333,800
Memphis Street, from Huntingdon Street to Lehigh Avenue		231,800
Schiller Street, from 7th Street to 8th Street		107,300

## 2. Odor Characterization Study

The City will hire an outside consultant to develop methods to characterize and measure the intensity of odors at the Northeast Plant. The study will entail the development of sample collection techniques and the analysis of these samples using advanced laboratory techniques. This effort will be coupled with the establishment of an odor panel made up of persons trained in the field. This panel will analyze and determine the chemical content of the odors and this determination will lead to corrective action. It will also provide an opportunity for the City's industrial waste

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inspectors to track the point source discharges which impact treatment processes. These techniques should be <u>beneficial</u> industry-wide. The development state of this project (Phase I) which the City agrees hereunder to execute is estimated to cost one hundred thousand dollars (\$100,000).

# 3. CSO Project

Survey of the second

The Combined Sewer Overflow (CSO) Project currently obligated-in the Environmental Trust Fund entails the installation of 63 monitoring stations located in the City s Upper Delaware Lower Level Interceptor System of the Northeast Plant. The project consists of instrumentation in regulating chambers, flow level sensors in the interceptor and rain gauges. Signals from these field instruments are transmitted to an existing Process control computer located at the City's Sewer Maintenance Headquarters.

During 1985 and 1986 the process control computer was upgraded by updating its hardware, software and communication systems.

To further enhance the effectiveness of the CSO Project, the City will improve the current data acquisition system and expand the network of field instrumentation so that the entire network would be compatible. This compatibility is necessary to further develop operating strategies to control the discharge of stormwater runoff.

This new project would consist of the following:

Upgrade the three existing monitors and control vaults at Magee Street, Dark Run Lane and Ash Street.

Install sclar cells to energize the field monitoring stations.

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Upgrade the instrumentation at 8 remote flow level. stations and 13 rain gauges.

This new phase of the CSO Project is estimated to cost one hundred and sixty thousand dollars (\$160,000).

4. Illegal Dumping Enforcement Program

The City will coordinate an enforcement program against hydrant abuse and illegal dumping at inlets of wastes by commercial and industrial businesses. The program anticipates the dedication of District Attorney and City Solicitor resources and court days, as well as stepped up enforcement by City inspectors authorized to enforce code violations and enhancement of that effort by delegation to Water Department employees of that enforcement authority. The estimated cost of this program is fifty thousand dollars (\$50,000).

# 5. <u>Seasonal Disinfection Study</u>

A seasonal disinfection study in cooperation with the Commonwealth of Pennsylvania Department of Environmental Resources and the Delaware River Basin Commission which will be carried out over a 24 month period to determine if water quality in the Delaware Estuary will be enhanced by practicing chlorination on a seasonal basis. The estimated cost is one hundred and forty thousand dollars (\$140,000).

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6. <u>Cobbs Creek Infiltration-Inflow Abatement</u> An interceptor chamber will be reconstructed which will eliminate flow from Cobbs Creek into an interceptor. The reconstruction will reduce dry weather flow by approximately four and one-half million gallons per day to the Southwest Water Pollution Control Plant. This problem arises because the stream bed has risen to a point where it is higher than the interceptor chamber and thus clean water from the stream floods the interceptor. The flow from the stream will be eliminated and the capacity of the plant to treat necessary flows will be enhanced by one million gallons per day. The estimated cost of this Project is four hundred and fifty thousand dollars (\$450,000).

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# EXHIBIT C

The City of Philadelphia will undertake to eliminate the threat to groundwater and surface activities from sewer and water main failure and eliminate an estimated 15,000 gallons per day of leakage and dry weather inflow to the Northeast Plant by completing sewer reconstruction and water main renewal at Hancock Street, from Thompson Street to Oxford Street at an estimated cost of \$240,000.

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# EXHIBIT B

# 1. Northeast Drainage District Sewer Construction and Water Main Renewal

The environmental benefit of this undertaking is to eliminate the threat to groundwater and surface activities from sewer and water main failure. In addition, this work should reduce infiltration to the Northeast Plant in excess of 90,000 gallons per day.

#### Location

 $\cdot$ )

Clearfield Street, from 17th to Bancroft Streets, and 17th Street, from Indiana Street to Clearfield Street

Ontario Street, from Broad Street to 16th Street, and Sydenham Street, from Westmoreland Street to Ontario Street

Memphis Street, from Huntingdon Street to Lehigh Avenue

Schiller Street, from 7th Street to 8th Street

## 2. Odor Characterization Study

The City will hire an outside consultant to develop methods to characterize and measure the intensity of odors at the Northeast Plant. The study will entail the development of sample collection techniques and the analysis of these samples using advanced laboratory techniques. This effort will be coupled with the establishment of an odor panel made up of persons trained in the field. This panel will analyze and determine the chemical content of the odors and this determination will lead to corrective action. It will also inspectors to track the point source discharges which impact treatment processes. These techniques should be beneficial industry-wide.

# 3. CSO Project

The Combined Sewer Overflow (CSO) Project currently obligated in the Environmental Trust Fund entails the installation of 63 monitoring stations located in the City s Upper Delaware Lower Level Interceptor System of the Northeast Plant. The project consists of instrumentation in regulating chambers, flow level sensors in the interceptor and rain gauges. Signals from these field instruments are transmitted to an existing Process control computer located at the City's Sewer Maintenance Headquarters.

During 1985 and 1986 the process control computer was upgraded by updating its hardware, software and communication systems.

To further enhance the effectiveness of the CSO Project, the City will improve the current data acquisition system and expand the network of field instrumentation so that the entire network would be compatible. This compatibility is necessary to further develop operating strategies to control the discharge of stormwater runoff.

This new project would consist of the following:

- Operade the three existing monitors and control vaults at Magee Street, Dark Run Lane and Ash Street.
- Install solar cells to energize the field monitoring stations.

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Upgrade the instrumentation at 8 remote flow level stations and 13 rain gauges.

# 4. Illegal Dumping Enforcement Program

The City will coordinate an enforcement program against hydrant abuse and illegal dumping at inlets of wastes by commercial and industrial businesses. The program anticipates the dedication of District Attorney and City Solicitor resources and court days, as well as stepped up enforcement by City inspectors authorized to enforce code violations and enhancement of that effort by delegation to Water Department employees of that enforcement authority.

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A seasonal disinfection study in cooperation with the Commonwealth of Pennsylvania Department of Environmental Resources and the Delaware River Basin Commission which will be carried out over a 24 month period to determine if water guality in the Delaware Estuary will be enhanced by practicing chlorination on a seasonal basis.

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An interceptor chamber will be reconstructed which will eliminate flow from Cobbs Creek into an interceptor. The reconstruction will reduce dry weather flow by approximately four and one-half million gallons per day to the Southwest Water Pollution Control Plant. This problem arises because the stream bed has risen to a point where it is higher than the interceptor chamber and thus clean water from the stream floods the interceptor. The flow from the stream will be eliminated and the capacity of the plant to treat necessary flows will be enhanced by one million gallons per day.

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# EXHIBIT C

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Constant of Localization

The City of Philadelphia will undertake to eliminate the threat to groundwater and surface activities from sewer and water main failure and eliminate an estimated 15,000 gallons per day of leakage and dry weather inflow to the Northeast Plant by completing sewer reconstruction and water main renewal at Hancock Street, from Thompson Street to Oxford Street.

#### EXHIBIT D

#### -34-

# CITY OF PAILADELPHIA WATER DEPARTMENT NORTHEAST WATER POLLUTION CONTROL PLANT

# Old Existing Primary Sedimentation Tanks Extended Life Program

Greeley and Hansen July 31, 1987

1. GENERAL

An Extended Life Program for the old existing primary sedimentation tanks at the Northeast Water Pollution Control Plant shall include concrete repairs and mechanical and electrical equipment replacement as part of an overall Rehabilitation Plan. The Extended Life Program is designed to increase the service life of primary tank structures and to provide increased mechanical and electrical reliability. This program is recognized as a limited undertaking designed within fiscal restraints; a more extensive rehabilitation including hydraulic modifications, scum removal, possible odor control measures and other improvements is also recommended should funding be made available.

The Old Existing Primary Sedimentation Tanks have been in continuous service for over 35 years. The old existing tanks consist of four rectangular concrete basins arranged "side by side" with common wall construction. Flow enters each tank through six inlet ports and exits over rectangular effluent weirs. Submerged baffles at the inlet distribute flow to provide effective usage of the tankage for settling operations. Settled primary sludge is collected within each tank by seven chain and flight type longitudinal collectors and two chain and flight type cross collectors and is conveyed to a sump at the influent end of the tank. Collected sludge is removed from the sump by a submersible type sludge pump. Scum is skimmed from the tank surface by the longitudinal collectors and rotating scum trough assemblies convey scum to the Scum Disposal Facilities.

### 2. EXISTING CONDITIONS

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Field investigations were conducted to assess the present condition of equipment and structures as required to determine improvements necessary to provide extended life to the present operating system. Observations made during the field inspections are summarized below.

In general, the equipment has received regular maintenance; however, signs of deterioration are evident. Significant wear is visible on the chains, sprockets, and gears. Return flight rails appeared to be in fair condition; however, some cross collector return rails are bent and support brackets were pulling away from the concrete in some places. Baffles and baffle supports at the inlet end of the tanks are in fair condition.

Sludge pumping equipment is adequate, however, there is no provision for standby units. The pumps are near the end of their useful life. Handrails in numerous locations are bent or have pulled away from the concrete support or both. In addition, the extent of the handrails and the arrangement of the existing handrails are inadequate.

Grating over openings or around gate operators are in generally poor condition.

Bottom rails embedded in the base slabs are worn out. Existing electrical power is provided through two-phase service. Most other plant equipment has been converted to more common three-phase power. Insulation on the power cables is showing signs of deterioration.

Old existing yard drainage for the Primary Sedimentation Tanks experience frequent blockages. Blockages usually occur at locations which are not easily accessible.

The structural condition of the tanks appears sound although spalls, cracks, delamination, deteriorated expansion joints and other minor structural problems were discovered during field investigations.

Some significant cracks and concrete delamination are located in the walls and slabs. Columns within the tanks supporting the collector system appear to be sound; although some column tops are deteriorated. Influent channel walkways in Tanks 3 and 4 are severely deteriorated. Influent channel walkways for Tanks 1 and 2 have cracks and spalling in the support beams and slabs. Portions of the dividing walkways between Tanks 2 and 3, and between Tanks 3 and 4 are severely deteriorated.

-36-

Significant cracks exist in most of the parapet walls which extend above the tank walls around the periphery of the tanks. Parapets are not structurally tied into the wall and are therefore free to move under exerted soil pressures. Therefore, in many cases the parapets had shifted out of plane.

#### . EXTENDED LIFE PROGRAM

Section 1.

Sec. 1

Under the Extended Life Program all chains, flights, gears, drives, shafts and sprockets on the longitudinal and cross collectors would be replaced with new equipment. New bottom and return rails would be installed. Existing sludge pumping equipment would be retired and new equipment provided.

For improvements in yard drainage new manholes would be provided at junctions of laterals and trunk lines and at other locations identified as frequent blockage points. Other yard drainage work would be provided as necessary. Improved drainage will decrease the "turnaround" time when tankage is out for maintenance or inspection, thereby improving operating service time.

Electrical service work would include replacement of the existing two-phase power with a three-phase power system. New gear and wiring would be provided.

Handrails and grating would be completely replaced to insure safe operating conditions around the tanks.

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Spalled and delaminated concrete in the slabs and tank walls would be removed by chipping to sound substrates and rebuilding the concrete to original lines and surfaces. Column sections showing spalling conditions or loss of concrete would be removed and rebuilt to original form.

Portions of walkways along the influent and effluent channels and at the top of dividing walls would be replaced.

Parapets would be removed and the surrounding grades would be recontoured to eliminate the need of the parapets where practicable. Where needed, new parapets would be constructed. Dowels would be provided to interconnect the walk with new parapets.

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Expansion joints would be rehabilitated as required throughout to maintain watertightness of the tanks.

## 4. ESTIMATED CONSTRUCTION COSTS.

Preliminary construction costs to implement the Extended Life Program are estimated at a cost of approximately \$5,000,000.

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# TABLE 1

# CITY OF PHILADELPHIA WATER DEPARTMENT NORTHEAST WATER POLLUTION CONTROL PLANT

# Old Existing Primary Sedimentation Tanks Extended Life Program

# Preliminary Construction Cost Estimate

# Greeley and Hansen July 31, 1987

	Item	Unit	Quantity	Unit <u>Cost</u>	Total Cost_
	Demolition Excavation	Job	LS 3 000	\$ 350,000	\$ 350,000
	Backfill	CY	300	10	3,000
	Concrete Reinforcing Steel	CY Ton	310 30	480 1,500	148,800 45,000
	Concrete Rebuilding Expansion Joint Repair	LS LF	LS 4,200	<b>610,000</b> 25 ·	610,000 105,000
	Rail Replacement	LF	14,200	- 30	426,000
	Grating Handrail	LF	3,600	25 50	180,000
•	Baffles	LS	LS	35,000	35,000
	Sludge Correction Equipment Sludge Pumping Equipment	LS FA		150,000	150,000
	Instrumentation Flectrical Work	LS	LS	<b>30,000</b> 450,000	30,000
	Seed/Topsoil Unidentified Items	LS LS	LS LS	35,000	35,000 <u>661,200</u>

TOTAL

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\$5,090,000

Entered this \_\_\_\_ day of

1985.

J. William Ditter, Jr., J. United States District Judge

Approved for entry without further notice.

THE CITY OF PHILADELPHIA

By: W. Wilson Goode Mayor

UNITED STATES OF AMERICA

Roger J. Marzull

Acting Assistant Attorney General Land and Natural Resources Division United States Department of Justice

Bv: mes S. White anaging Directdr

By: Carlo R. Gambetta

Finance Director

Bv: William J. Mar azzo

Commissioner/ / Water/Department Edward S. G. Dennis, Jr. United States Attorney 1

12

By:

James G. Sheehan Assistant United States Atto Chief, Civil Division

Thomas L. Adams, Jr. Assistant Administrator for Enforcement & Compliance Monitoring United States Environmental Protection Agency Washington, D.C. 20460

Bv: Hansel B. MJ City solicitor

By: Pamela Foa Divisional Deputy City Solicitor

By: Henry L. Diamond Richard S. Davis Beveridge & Diamond Special Counsel

THE COMMONWEALTH OF PENNSYLVANIA

Bv: Markun. Decroellan

Deputy Secretary Department of Environmental Resources

RUDDAN BY: THUR Louise Thompson

Counsel for Department of Environmental Resources

By:

James M. Seif Regional Administrator United States Environmental Protection Agency Region III

Bv: Bruce M. Diamond

Regional Counsel United States Environmental Protection Agency Region III

By:

Adam M. Kushner Assistant Regional Counsel United States Environmental Protection Agency Region III

athenne Votant By:

Catherine Votaw Assistant United States Attorney

.N. k By: \_ Dianne Kelly

Trial Attorney Land and Natural Resources United States Department of Justice

# PLAINTIFF-INTERVENORS:

Maryland By: J. Joseph Curran, δŕ. Attorney General Thomas A. Deming Assistant Attorney General

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Delaware River Basin Commission

By: David Goldberg,

Sierra Club, et al.

-: -

von By:

Jerome Balter/ Attorney for Sierra Club, et al.
-34-

#### CITY OF PEILADELPEIA WATER DEPARTMENT NORTHEAST WATER POLLUTION CONTROL PLANT

#### Old Existing Primary Sedimentation Tanks Extended Life Program

Greeley and Hansen July 31, 1987

#### . GENERAL

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1.1

An Extended Life Program for the old existing primary sedimentation tanks at the Northeast Water Pollution Control Plant shall include concrete repairs and mechanical and electrical equipment replacement as part of an overall The Extended Life Program is designed to Rehabilitation Plan. increase the service life of primary tank structures and to provide increased mechanical and electrical reliability. This program is recognized as a limited undertaking designed within fiscal restraints; a more extensive rehabilitation including hydraulic modifications, scum removal, possible odor control measures and other improvements is also recommended should funding be made available.

The Old Existing Primary Sedimentation Tanks have been in continuous service for over 35 years. The old existing tanks consist of four rectangular concrete basins arranged "side by side" with common wall construction. Flow enters each tank through six inlet ports and exits over rectangular effluent weirs. Submerged baffles at the inlet distribute flow to provide effective usage of the tankage for settling operations. Settled primary sludge is collected within each tank by seven chain and flight type longitudinal collectors and two chain and flight type cross collectors and is conveyed to a sump at the influent end of the tank. Collected sludge is removed from the sump by a submersible type sludge pump. Scum is skimmed from the tank surface by the longitudinal collectors and rotating scum trough assemblies convey scum to the Scum Disposal Facilities.

#### 2. EXISTING CONDITIONS

Field investigations were conducted to assess the present condition of equipment and structures as required to determine improvements necessary to provide extended life to the present operating system. Observations made during the field inspections are summarized below.

1

In general, the equipment has received regular maintenance; however, signs of deterioration are evident. Significant wear is visible on the chains, sprockets, and gears. Return flight rails appeared to be in fair condition; however, some cross collector return rails are bent and support brackets were pulling away from the concrete in some places. Baffles and baffle supports at the inlet end of the tanks are in fair condition.

- Sludge pumping equipment is adequate, however, there is no provision for standby units. The pumps are near the end of their useful life. Handrails in numerous locations are bent or have pulled away from the concrete support or both. In addition, the extent of the handrails and the arrangement of the existing handrails are inadequate.

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- Grating over openings or around gate operators are in generally poor condition.

Bottom rails embedded in the base slabs are worn out.

Existing electrical power is provided through two-phase service. Most other plant equipment has been converted to more common three-phase power. Insulation on the power cables is showing signs of deterioration.

Old existing yard drainage for the Primary Sedimentation Tanks experience frequent blockages. Blockages usually occur at locations which are not easily accessible.

The structural condition of the tanks appears sound although spalls, cracks, delamination, deteriorated expansion joints and other minor structural problems were discovered during field investigations.

Some significant cracks and concrete delamination are located in the walls and slabs. Columns within the tanks supporting the collector system appear to be sound; although some column tops are deteriorated. Influent channel walkways in Tanks 3 and 4 are severely deteriorated. Influent channel walkways for ----Tanks 1 and 2 have cracks and spalling in the support beams and slabs. Portions of the dividing walkways between Tanks 2 and 3, and between Tanks 3 and 4 are severely deteriorated. Significant cracks exist in most of the parapet walls which extend above the tank walls around the periphery of the tanks. Parapets are not structurally tied into the wall and are therefore free to move under exerted soil pressures. Therefore, in many cases the parapets had shifted out of plane.

#### 3. EITENDED LIFE PROGRAM

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Under the Extended Life Program all chains, flights, gears, drives, shafts and sprockets on the longitudinal and cross collectors would be replaced with new equipment. New bottom and return rails would be installed. Existing sludge pumping equipment would be retired and new equipment provided.

For improvements in yard drainage new manholes would be provided at junctions of laterals and trunk lines and at other -- locations identified as frequent blockage points. Other yard drainage work would be provided as necessary. Improved drainage will decrease the "turnaround" time when tankage is out for maintenance or inspection, thereby improving operating service time.

Electrical service work would include replacement of the existing two-phase power with a three-phase power system. New gear and wiring would be provided.

Handrails and grating would be completely replaced to insure a safe operating conditions around the tanks.

Spalled and delaminated concrete in the slabs and tank walls would be removed by chipping to sound substrates and rebuilding the concrete to original lines and surfaces. Column sections showing spalling conditions or loss of concrete would be removed and rebuilt to priginal form.

Portions of walkways along the influent and effluent channels and at the top of dividing walls would be replaced.

Parapets would be removed and the surrounding grades would be recontoured to eliminate the need of the parapets where practicable. Where needed, new parapets would be constructed. Dowels would be provided to interconnect the walk with new parapets.

Expansion joints would be rehabilitated as required throughout to maintain watertightness of the tanks.

#### 4. ESTIMATED CONSTRUCTION COSTS

Preliminary construction costs to implement the Extended Life Program are estimated at a cost of \$5,090,000. A breakdown of costs is presented in Table 1.

#### TABLE 1

#### CITY OF FRILADELFRIA WATER DEPARTMENT NORTHEAST WATER POLLUTION CONTROL PLANT

#### Old Existing Primary Sedimentation Tanks Extended Life Program

#### Preliminary Construction Cost Estimate

Greeley and Hansen July 31, 1987

	Itez	Unit	Oughtity	<u>Cost</u>	<u>Cost</u>
	Demolition	Job	··· LS	\$ 350,000	\$ 350,000
	Excavation	CÝ	3,000	12	36,000
	Backfill	CY	- 300	10	3,000
	Concrete	CY	310	480	148,800-
	Reinforcing Steel	Ton	30	1,500	45,00Ľ
	Concrete Rebuilding	LS	LS	610,000	610,000
	Expansion Joint Repair	LP	4,200	25	105,000
<b>)</b> .	Rail Replacement	LF	14,200	30	426,000
	Grating	SF	600	25	15,00C
-	Handrail	LP	3,600	. 50	180,000
	Baffles	LS	LS .	35,000	35.000-
	Sludge Collection Equipment	LS	LS	1,800,000	1,800,000
	Sludge Pumping Equipment	LS ·	LS	150,000	150,000
	Manholes	EX '	5	2,000	10,000.
	Instrumentation	LS	LS	30,000	30,000
	Electrical Work	LS	LS	450,000	450,00C÷
	Seed/Topsoil	LS	LS <sup>`.</sup>	. 35,000	35,000
-	Unidentified Items	LS	LS		<u> </u>

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TOTAL

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\$5,090,000

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#### CERTIFICATE OF SERVCIE

It is hereby certified that a copy of the foregoing Request to File Certain Exhibits Under Seal was sent by United States mail, postage prepaid, this day of February, 1988, to the following:

Pamela Foa, Esquire Divisional Deputy City Solicitor City of Phila. Water Department ARA Tower, 5th Floor 1101 Market Street Philadelphia, PA 19107

Henry Diamond, Esquire Beveridge & Diamond 1333 New Hampshire Avenue Washington, DC 20036

Adam Kushner, Esquire U.S. Environmental Protection Agency 841 Chestnut Building Philadelphia, PA 19106

Diane Kelly, Esquire Environmental Enforcement Section U.S. Dept. of Justice Room 7320 Washington, DC 20530 Jerome Balter, Esqurie 1315 Walnut Street Suite 1632 Philadelphia, PA 19107

Louise Thompson, Esquire 1314 Chestnut Street 12th Floor --Philadelphia, PA 19107

David Goldberg, Esquire Warren Goldberg & Berman P.O. Box 645 Princeton, NJ 08540

CATHERINE VOTAW Assistant United States Attorney ER-BWQ-15.2: Rev. 8/87



JUL 2 2 1992

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COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF WATER QUALITY MANAGEMENT

# AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM SEWAGE PERMIT NO. PA \_\_0026689\_\_\_\_\_

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 et seq. (the "Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 et seq.

City of Philadelphia Water Department

is hereby authorized to discharge from the Northeast Water Pollution Control Plant (Point Source 001) and 59 overflow points (Point Sources 002-060) located in the City of Philadelphia, Philadelphia County.

to the receiving waters named Delaware River Zone 3 (Point Sources 001-022 and 058); Pennypack Creek (Point Sources 023-027); Tacony Creek (Point Sources 028-041 and 059-060); and Frankford Creek (Point Sources 042-057).

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts A, B, and C hereof.

This permit and the authorization to discharge shall expire at midnight

The authority granted by this permit is subject to the following further qualifications:

- 1. If there is a conflict between the application, its supporting documents and/or amendments and the standard or special conditions, and the terms and conditions of this permit, the terms and conditions shall apply.
- 2. Failure to comply with any of the terms or conditions of this permit is grounds for enforcement action; for permit termination, revocation and reissuance or modification; or for denial of a permit renewal application.
- 3. It is required by law that this permit, before becoming operative, shall be recorded in the Office of the Recorder of Deeds for the county wherein the outlet of said sewer system is located.
- 4. Application for renewal of this permit, or notification of intent to cease discharging by the expiration date, must be submitted to the Department at least 180 days prior to the above expiration date (unless permission has been granted by the Department for submission at a later date), using the appropriate NPDES Permit Application Form. In the event that a timely and complete application for renewal has been submitted and the Department is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit will be automatically continued and will remain fully effective and enforceable pending the grant or denial of the application for permit renewal.
- 5. This permit does not constitute authorization to construct or make modifications to wastewater treatment facilities necessary to meet the terms and conditions of this permit.

PERMIT ISSUED	BY
DATE	TITLE Joseph A. Feola

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#### I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR DISCHARGE 001; LOCATED AT LATITUDE 39°58'50.6". LONGITUDE 75°04'34.9"

- A.
- The Permittee is authorized to discharge during the period from issuance through expiration. The average monthly flow of effluent discharged from the wastewater treatment facility shall not exceed 8. 210 million gallons per day.

PART A

The quality of effluent shall be limited at all times as specified in Footnote (3) and as follows: C

			DISCHARGE	LIMITAT	ONS		a serie survey	MONITORING	<b>REQUIREM</b>	ENTS
DISCHARGE	MASS UNIT	MASS UNITS (1bs/day) CONCENTRATIONS (mg/1)								
PARAMETER	AVERAGE MONTHLY	AVERAGE WEEKLY	AVERAGE ANNUAL	AVERAGE MONTHLY	AVERAGE WEEKLY	MAXIMUM DAILY	INSTAN- TANEOUS MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE	24 HOUR REPORT UNDER PART A.II.D
FLOW (a)								Continuous	Recorded	1
BOD5. (b)	42,400	63,600		30	45		60	Daily	24 HC	
BOD5 % Removal (f)		DRBC Zon	e 3 Regutr	rement of	86%			Daily	24 HC	
SUSPENDED SOLIDS	52,540	78,810		30	45		60	Daily	24 HC	
CB0D <sub>20</sub> (c)	72,500							2/Week	24 HC	
FECAL COLIFORM (5-1 to 9-30)				See	Footnote	2		Daily	Grab	
FECAL COLIFORM (10-1 to 4-30)			Same Limits as in Footnote 2					Daily	Grab	
рн	Within	Limits of 6	to 9 Star	dard Unit	s at all	times		Daily	Grab	2
NH3-N				Monitor Only	Monitor Only			1/Week	24 HC	
TKN				Monitor Only	Monitor Only			1/Week	24 HC	

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e e e e e e e e e e e e e e e e e e e	1		DISCHARGE	LIMITATI	ONS			MONITORING	REQUIREM	ENTS
DISCHARGE	MASS UNIT	S (1bs/day)	CO	INCENTRATI	ONS (mg/1	1				
PARAMETER	AVERAGE MONTHLY	AVERAGE WEEKLY	AVERAGE Annual	AVERAGE MONTHLY	AVERAGE WEEKLY	MAXIMUM DAILY	INSTAN- TANEOUS MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE Type	24 HOUR REPORT UNDER PART A.II.D
NO3-N		7		Monitor Only	Monitor Only			1/Week	24 HC	
NOZ-N			٠	Monitor Only	Monitor Only			1/Week	24 HC	
ALUMINUM, TOTAL (d)				Monitor Only				1/Month	24 HC	
CHROMIUM, TOTAL (d)				Monitor Only				1/Month	24 HC	
CHROMIUM, HEXAVALENT				Only				1/Month	Grab	
IRON, TOTAL (d)				Monitor Only				1/Month	24 HC	
IRON, DISSOLVED (d)			for the day	Monitor Only	And a local		<i></i>	1/Month	24 HC	
MANGANESE (d)				Monitor Only				1/Month	24 HC	
SILVER (d)				Monitor Only				1/Month	24 HC	
ZINC, (d)	·			Monitor Omly				1/Month	24 HC	

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	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS				
DISCHARGE	MASS UNIT	S (1bs/day)	CO	NCENTRATI	ONS (mg/1	)	l			
PARAMETER	AVERAGE MONTHLY	AVERAGE WEEKLY	AVERAGE ANNUAL	AVERAGE MONTHLY	AVERAGE WEEKLY	MAXIMUM DAILY	INSTAN- TANEOUS MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE	24 HOUR REPORT UNDER PART A.II.D
CYANIDE, FREE (d)				MONITOR				1/Month	24 HC	
PHENOLS, TOTAL (d)				MONITOR ONLY				1/Month	24 HC	
2,4 DIMETHYLPHENOL (d)			_	MONITOR ONLY				1/Month	24 HC	
4,6 DINITRO-O-CRESOL (d)				MONITOR ONLY				1/Month	24 HC	
CHLOROFORM (d)				MONITOR ONLY				1/Month	Grab	
(d)				MONITOR				1/Month	Grab	
				MONITOR				1/Month	Grab	
ETHER (d)				MONITOR ONLY				1/Month	24 HC	
CHLORINE				MONITOR				Daily	Grab	

Samples taken in compliance with the monitoring requirements specified above shall be taken at the FOULNULES: following location(s): Outfall 001 at the Pier Effluent Sampling Building.

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(a) See Paragraph O, Other Requirements (Page 14m of 14)
 (b) See Paragraph P, Other Requirements (Page 14m of 14)
 (c) CBOD<sub>20</sub> - 20 Day Carbonaceous Biochemical Oxygen Demand Test with Nitrogenous Oxygen Demand Inhibited.

(d) See Paragraph H, Other Requirements (Page 14a of 14) (e) See Paragraph G, Other Requirements (Page 14a of 14)

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# PART A

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- I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR DISCHARGE 001; LOCATED AT LATITUDE 39°58'50.6", LONGITUDE 75°04'34.9"
  - A. During the period beginning at issuance and lasting through expiration, the Permittee is authorized to discharge.
  - B. Based on production data and anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply:

			DISCHARGE	MONITORING REQUIREMENTS				
DISCHARGE	MASS UNIT	S (1bs/day)	TUC ****					
PARAMETER	AVERAGE MONTHLY	AVERAGE WEEKLY	AVERAGE ANNUAL	AVERAGE MONTHLY	MAXIMUM DAILY	MEASUREMENT FREQUENCY	SAMPLE TYPE	24 HOUR REPORT UNDER PART A.II.D
WHOLE EFFLUENT Toxicity - Ceriodaphnia dubia *&**					MONITOR ONLY	QUARTERLY	24 H.C.	
WHOLE EFFLUENT TOXICITY - FATHEAD MINNOW * & ***					MONITOR ONLY	QUARTERLY	24 H.C.	

- FOOTNOTES: 1. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Outfall 001 at the Pier Effluent Sampling Building.
  - \* See Paragraph Q, Other Requirements (Page 14m of 14)
  - \*\* Toxicity monitoirng based on static renewal chronic Ceriodaphnia dubia test reported as a maximum daily result.
  - \*\*\* Toxicity monitoring based on static renewal chronic Fathead minnow test reported as a maximum daily
    result.
  - \*\*\*\* TUc: Chronic Toxicity Units TUc = 100

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PART C

nitoring requirements, and other standard and relate to the discharge(s) of pollutants authorized are contained in Water Quality Management Permit(s) 208 issued on August 4, 1972; August 24, 1961 and rms and conditions of this permit, unless gise herein. Monitoring Report is to be sent to the following ware River Basin Commission Tenton, New Jersey 08628 forcement Branch (3WM51) Environmental Protection Agency histnut Building lephia, PA 19107 the Discharge Monitoring Report, the term "average hist average weekly value observed during the artment, the sewage treatment plant is not so change in the character of the waste or age treatment plant, or changed use or condition  $\mathfrak{A}(\mathfrak{f})$ , or otherwise, that the effluent ceases to be illatment plant creates a public nuisance, then t the right herein granted to discharge such che null and void unless within the time be permittee shall adopt such remedial iffluent which, in the opinion of the tory for discharge into the receiving body of area ways, roofs, foundation drains or other sanitary sewers associated with the herein posifically made contingent upon the permittee the rights by easement or otherwise, providing on, operation, maintenance and replacement of es associated with the herein approved plivate property, with full rights of

least 86% as a monthly laware River Basin percent removal shall be che influent and acteristics of the raw flows. If equivalent ts, the percent removal 15 measurements.

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rformed using the 36, Guidelines llutants, or any approved

(AA, Flame) (AA, Flame) + (AA, Extraction) L (AA, Direct) 1 (AA, Direct) Attached) 1 (4AAP, Manual) .1 (AA, Flame) .2 (AA, Furnace) .1 (AA, Flame) 5 (GC/MS ISOTOPE) 4 (GC/MS ISOTOPE) (GC/Hal.) ; (GC/MS) 1 (GC/Hai.) ard to implementation of the trial pretreatment program in and the General Pretreatment ogram shall also be .pproved and/or modified POTW ie permittee. ges, and obtain approval of all

d pretreatment program in

its pretreatment program shall, s listed below. Where the ingent or more frequent approved program shall apply.

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#### PART C

OTHER REQUIREMENTS (Continued)

- (a) The permittee shall provide written notice of applicable pretreatment requirements to all industrial users. For significant industrial users (SIUs) such written notice shall be through individual discharge permits or other equivalent control mechanism in accordance with 40 C.F.R. 403.8(f). All SIU control mechanisms shall be in place within 6 months of program approval and shall not be issued for a period which exceeds 5 years. SIU control mechanisms shall be reissued within 3 months of expiration, and administrative extensions shall not be granted without written consent from the Approval Authority.
- (b) Each SIU shall be sampled by the permittee at least once per year. Such sampling shall include all regulated parameters.
- (c) Each SIU shall be inspected by the permittee at least once per year. Such inspection shall cover all areas which could result in wastewater discharge to the sewer including manufacturing areas, chemical storage areas, pretreatment facilities, spill prevention and control procedures, hazardous waste generation, and industrial self-monitoring procedures and records.
- (d) The permittee shall implement the industrial reporting requirements of 40 C.F.R. 403.12.
- (e) The permittee shall develop and obtain Approval Authority approval of a written enforcement response plan (ERP) within 6 months of permit issuance. The ERP shall indicate how instances of violation will be investigated, what enforcement options are available to the POTW, contain a listing of potential industrial violations, and state the type of action and timeframe for the permittee's enforcement for each violation. Where approval of the ERP has been previously granted, the permittee shall reevaluate its ERP and submit the results of the reevaluation and a revised ERP within 6 months of permit issuance.
- (f) The permittee shall take timely and appropriate enforcement in accordance with its approved ERP for all instances of industrial violations.



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#### OTHER REQUIREMENTS (Continued)

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- (g) The permittee shall submit, to the Approval Authority, a reevaluation of its local limits based on a headworks analysis of its treatment plant within 1 year of permit issuance. At a minimum, the headworks analysis shall include arsenic, cadmium, chromium, copper, cyanide (T) lead, mercury, nickel, silver, zinc, any parameter limited by this permit or sludge disposal requirements, and any other pollutant which the permittee or approval authority believes may be discharged by its industries in amounts which may cause pass-through or interference. The list of pollutants to be evaluated shall be submitted within 3 months of permit issuance.
- (h) The permittee shall conduct monitoring at its treatment plant based on its permitted flows, as follows:

i) > 20 MGD - monthly influent, effluent and sludge analysis for all local limit parameters, semi-annual priority pollutant scan for influent-and sludge.

ii) > 5-2D MGD - monthly influent, effluent and sludge analysis for all local limit parameters, annual priority pollutant scan for influent and sludge.

iii) > 1-5 MGD - quarterly influent, effluent and sludge analysis for all local limit parameters, annual priority pollutant scan for influent and sludge.

iv) < 1 MGD - annual influent, effluent and sludge analysis for all local limit parameters, priority pollutant scan for influent and sludge within 1 year.

- (i) The permittee shall ensure that adequate resources are available (equipment and personnel) to fully implement the pretreatment program.
- (4) EPA and DER retain the right to require the permittee to institute changes to its pretreatment program if:
  - (a) The program is not implemented in a way satisfying the requirements of 40 C.F.R. 403.
  - (b) Problems such as interference, pass-through or sludge contamination develop or continue.
  - (c) Federal, State, or local requirements change.



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#### PART C

OTHER REQUIREMENTS (Continued)

- (5) By March 31 of each year, the permittee shall submit to EPA and DER an annual report that describes the permittee's pretreatment activities for the previous calendar year. The annual report shall include pretreatment activities in all municipalities from which wastewater is received at the permittee's treatment plant. The submission to DER shall be incorporated into the permittee's annual Municipal Wasteload Management report required by DER's Chapter 94 Rules and Regulations. The annual report shall include the following:
  - (a) Control Mechanism Issuance a summary of SIU control mechanism issuance including a list of issuance and expiration dates of each SIU.
  - (b) Sampling and Inspection a summary of the number and type of inspections and samplings of SIUs by the permittee, including a list of all SIUs either not sampled or not inspected.
  - (c) Industrial User Compliance and POTW Enforcement a summary of the number and type of violations of pretreatment regulations and the actions taken by the permittee to obtain compliance. For each SIU, the report shall say whether the user was in significant noncompliance under 40 C.F.R. 403.8, infrequent (non-significant) noncompliance, or in compliance for the entire year. A copy of the published list of facilities in significant noncompliance shall be included.
  - (d) Industrial Listing an updated industrial listing showing all current SIUs and the catergorical standard, if any, applicable to each.
  - (e) Summary of POTW Operations any interference upset, or permit violations experienced at the POTW which may be attributed to industrial users, and actions taken to alleviate said events. Sampling and analysis of treatment plant influent and sludge for toxic and incompatible pollutants shall also be included with an analysis of any trends in the data since pretreatment program approval.
  - (f) Pretreatment Program Changes a summary of any changes to the approved program and the date of submission to the Approval Authority.



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#### PART C

#### OTHER REQUIREMENTS (Continued)

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J. The permittee will ensure that applied chlorine dosages, used for disinfection or other purposes, are optimized to the degree necessary such that the total residual chlorine (TRC) in the discharge effluent does not cause an adverse stream impact. In doing so, the permittee shall consider relevant factors affecting required chlorine dosage, such as wastewater characteristics, mixing and contact times, desired result of chlorination, and expected impact on the receiving water body. The TRC data shall be recorded daily and maintained at the facility. For municipal facilities the data shall be summarized annually as part of the Chapter 94 - Municipal Wasteload Management Report.

If the Oepartment determines or receives documented evidence that levels of TRC in the permittee's effluent are causing adverse water quality impacts in the receiving water, the permittee shall be required to institute necessary additional steps to reduce or eliminate such impact.

- K. Collected screenings, slurries, sludges, and other solids shall be handled and disposed of in compliance with 25 Pa. Code, Chapters 271, 273, 275, 283,and 285 (relating to permits and requirements for landfilling, land application, incineration, and storage of sewage sludge), Federal Regulation 40 CFR 257, and the Federal Clean Water Act and its amendments.
- L. The Department may identify and require certain discharge specific data to be submitted before the expiration date of this permit. Upon notification by the Department, the permittee will have 12 months from the date of the notice to provide the required data. These data, along with any other data available to the Department, will be used in completing the Watershed TMDL/WLA Analysis and in establishing discharge effluent limits.
- M. Combined Sewer Overflows

Point Sources 002 through 060 (listed below) serve as combined sewer reliefs necessitated by stormwater entering the sewer system and exceeding the hydraulic capacity of the sewers and/or the treatment plant. Combined sewer overflows (CSOs) are allowed only when flows in combined sewers exceed conveyance or treatment capacities during wet weather periods. Dry weather overflows are prohibited. CSOs are point source discharges which must be provided technology-based control measures in accordance with the Clean Water Act. Additional control measures will also have to be provided if determined necessary to comply with water quality standards. At a minimum, technology-based control measures must include best management practices and/or other non-capital intensive measures to minimize discharges and water quality impacts.

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# OTHER REQUIREMENTS (Continued)

#### Discharges to Delaware River

Interceptor Regulator Name	Location	
Somerset Collector		
Castor Avenue (D-17) Venango Street (D-18) Tioga Street (D-19) Ontario Street (D-20) Westmoreland Street (D-21) Allegheny Avenue (D-22) Indiana Avenue (D-23) Cambria Street (D-24) Somerset Street (D-25)	39°58'52"N 39°58'51"N 39°58'50"N 39°58'47"N 39°58'44"N 39°58'39"N 39°58'38"N 39°58'35"N 39°58'35"N	75°04'58"W 75°05'10"W 75°05'21"W 75°05'31"W 75°05'40"W 75°05'49"W 75°06'11"W 75°06'25"W 75°06'25"W
Upper Delaware Collector		
Cottman Street (D-2) Princeton Avenue (D-3) Disston Street (D-4) Magee Street (D-5) Levick Street (D-6) Lardner Street (D-7) Comly Street (D-8) Dark Run Lane (D-9) Sanger Street (D-11) Bridge Street (D-12) Kirkbridge Street (D-13) Orthodox Street (D-15)	40°01'20"N 40°01'13"N 40°01'07"N 40°00'53"N 40°00'45"N 40°00'38"N 40°00'34"N 40°00'34"N 40°00'21"N 40°00'02"N 39°59'52"N	75°01'46"W 75°02'00"W 75°02'35"W 75°02'35"W 75°03'05"W 75°03'12"W 75°03'18"W 75°03'27"W 75°03'42"W 75°03'47"W 75°04'04"W
	Interceptor <u>Regulator Name</u> <u>Somerset Collector</u> Castor Avenue (D-17) Venango Street (D-18) Tioga Street (D-19) Ontario Street (D-20) Westmoreland Street (D-21) Allegheny Avenue (D-22) Indiana Avenue (D-23) Cambria Street (D-24) Somerset Street (D-25) <u>Upper Delaware Collector</u> Cottman Street (D-2) Princeton Avenue (D-3) Disston Street (D-4) Magee Street (D-5) Levick Street (D-6) Lardner Street (D-7) Comly Street (D-8) Dark Run Lane (D-9) Sanger Street (D-11) Bridge Street (D-13) Orthodox Street (D-15)	Interceptor Regulator Name         Location           Somerset Collector

# Discharges to Pennypack Creek

# Upper Pennypack Collector System

023	Frankford Avenue & Ash-		•
	burner Street (P-	1) 40°02'37"N	75°01'15"W
024	Frankford Avenue &	•	
	Holmesburg Street (P-	2) 40°02'37"N	75°01'16"W
025	Torresdale Ävenue N.W. of	•	
	Pennypack Creek (P-	3) 40°02'13"N	75°01'19"W
026	Cottage Avenue & Holmes-	•	
	burg Avenue (P-	4) 40°02'22"N	75°01'21"W
027	Holmesburg Avenue S.E. of	•	
	Hegerman Street (P-	5) 40°02'01"N	75°01'21"W

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OTHER REQUIREMENTS (Continued)

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Discharges to Tacony Creek

# Frankford High Level Collector System

028	Williams Avenue S.E. of		
	Sedgewick (T-1)	40°04'36"N	75°09'32"W
029	Champlost Avenue W. of		
	Tacony Creek (T-3)	40°02'30"N	75°07'04"W
030	Rising Sun Avenue E. of		
	Tacony Creek (T-4)	40°02'12"N	75°06'48"W
031	Rising Sun Avenue W. of		
	Tacony Creek (T-5)	40°02'09"N	75°06'48"W
032	Bingham Street E. of		
	Tacony Creek (T-6)	40°02'03"N	75°06'41"W
033	Tabor Road W. of Tacony		
	Creek (T-7)	40°01'51"N	75°06'42"W
034	Ashdale Street W. Of		
	Tacony Creek (T-8)	40°01'41"N	75°06'46"W
035	Roosevelt Blvd. W. of		
	Tacony Creek (T-9)	40°01'37"N	75°06'48"W
036	Roosevelt Blvd. E. of		
	Tacony Creek (T-10)	40°01'37"N	75°06'47"W
037	Ruscomb Street E. of		
	Tacony Creek (1-11)	40°01'28"N	75°06'42"W
038	WITAKEF AVENUE E. OT		75000140004
000	lacony Creek (1-12)	40°01'23"N	/5°06'42"W
039	WITAKER AVENUE W. OT	1000110000	75000140801
040	I Shooh & Demons Augura (T 14)	40°01'22"N	75°06'42"W
040	1 Street & Ramona Avenue(1-14)	40°00'56"N	75°06'2/"W
041	J Street & Juniata PK. (1-15)	40°00'5/"N	75°06'19"₩
059	ROCK RUN REITET Sewer (R-15)	40-02.12.N	/5"U0"49"W
080	Chambon (D. 18)	1000010085	7500510781
	CUGINDEL (K-10)	40-00-33"N	/5-05.3/"W

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## OTHER REQUIREMENTS (Continued)

# Discharges to Frankford Creek

## Upper Frankford Creek Low Level

042	Castor Avenue at Unity Street (Circle) (F	-31	40°00+57"N	75°05'51"W
043	Wingobocking Street E	-3) of	40 00 J/ N	/5 05 51 W
040	Adame Avenue (E		10000152#N	7590514194
044	Bristol Street W of	-4)	40 00 55 1	/5 05 41 4
044		-51	40°001408N	7500514111
045	Worcel Street E of	-3)	40 00 40 N	75 05 41 W
045	Frankford Creek /F	-6)	40°00+26#N	7590512244
046	Werrel Street W of		40 00 20 10 .	/5 05 JZ W
040	Frankford Crook /F		409001258N	7590512404
047	Frankfurd Creek (r	-/)	40 00°20"N	/5°05°34"₩
047	Erie Avenue & Hunting	- 01		35005100001
	Park Avenue (F	-8)	40°00°21"N	/5°05'36"W
048	Frankford Avenue N. of			
	Frankford Creek (F	•-9)	40°00'20"N	75°05'34"W
049	Frankford Avenue S. of			
	Frankford Creek (F	F-10)	40°00'19"N	75°05'35"W
050	Paul Street S. of Vandy	yke		
	Street (f	F-11)	40°00'15"N	75°05'25"W
051	Sepviva Street N. of			
	Butler Street (F	F-12)	39°59'55"N	75°05'13"W
052	Duncan Street (under De	el.		
	Exp.)	(F-13)	40°00'15"N	75°04'57"W
053	Bristol Street(cemetary	ý)(F-14)	40°00'15"N	75°04 ' 57"W
054	Wakeling Street N.W. of	f i		
	Creek Basin	(F-21)	40°00'15"N	75°04'57"W
055	Bridge Street N.W. of	··/		
	Creek Basin	(F-23)	40°00'18"N	75°04105"W
056	Bridge Street S.F. of	()		
	Creek Rasin	(F-24)	40°00 I 19*N	7590410584
057	Ach Street West of	/	44 AA 79 M	55 UT UJ M
<b>UU</b>	Creak Racin /	(F-25)	40°001154N	7590415184
	CIECK DASHI	(=25)	40.00.12.W	12 04.21.M

## Discharges to Delaware River

Upper Delaware Collector

058 Wakeling Street Relief Sewer 40°00'29"N 75°03'19"W

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Due Date (actual dates to be

PID + 4 months

PID + 6 months

PID + 12 months

PID + 38 months

entered at issuance)

#### OTHER REQUIREMENTS (Continued)

1. MINIMUM TECHNOLOGY-BASED CONTROL MEASURES - PLAN OF ACTION

The permittee shall complete and implement a Minimum Technology-based Plan of Action for identification and minimization of all CSO discharges according to the following schedule:

Permit Issuance Date (PID)

Description of Activity

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A THE REPORT

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Submit a conceptual plan to state and EPA, Region III, (3WM53)

State approval/modification of conceptual plan

Submittal of final plan to State and EPA, Region III including implementation plan and schedule

Completion of Plan recommendations final report to State and EPA, Region III

The Minimum Technology-based Limitation Plan of Action shall address at a minimum, the following measures:

- a. Identification of Combined Sewer Overflows. Review and update the CSO discharge points listed above. For each CSO indicate the following measures:
  - i. latitude and longitude of the CSO discharge point and associated regulator mechanism.
  - ii. A narrative description of the location of the CSO point and regulator mechanism with respect to direction and distance from street intersections.
  - iii. A location map (U.S.G.S. Topographic Quadrangle) with the location of the CSO point and associated regulator mechanism indicated.
  - iv. A description of the size and type of regulator mechanism, including engineering drawing.



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#### PART C

OTHER REQUIREMENTS (Continued)

- v. A description of the size and type of outfall structure.
- vi. A determination of whether the outfall structure is submerged, partially submerged or not submerged during times of critical condition by the receiving water.
- vii. Verification of the presence or absence of a backflow prevention device on the CSO.
- viii. Name of the receiving water.
- ix. Development of a visual identification system on all CSO outfalls, by visually labeling the outfall pipe with a numbering system, submerged outfalls shall be identified at the nearest manhole/bulkhead.
- x. Identification of CSOs near drinking water intakes, recreation areas, or unique ecological habitats.
- xi. Identification of any continuous or chronic dry weather overflows.
- b. System Inventory

The plan shall identify all overflow points, control structures, sewer sizes and control structure dimensions, industrial contributors and key hydraulic monitoring control points. The inventory shall include system maps, hydraulic analyses and flow measurements. Characterization of all overflows in terms of both frequency, quantity and quality; identification of the intensity and duration of the storm event that triggers an overflow.

Volume discharge from each overflow for various size storms, and number of events and total volume discharged per year based on historical rainfall records.

c. Operational Status and Assessment

Summarize the current operation status, control measures, and functional adequacy of all CSOs. A comprehensive engineering assessment of the operational status and condition of all portions of the CSO treatment works based on actual field verification/inspection records shall be included. Information on the determination of whether the sewers are cracked, depressed, or of questionable physical integrity, observances of the presence of flow restrictions due to excessive sludge or grease build-up, or other conditions, and an assessment of each regulator's and/or tide gate's operability and reliability. All dry weather overflows are prohibited.

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#### PART C

#### OTHER REQUIREMENTS (Continued)

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Based upon the results of the engineering inspection and assessment, the report shall include a prioritized list, strategy and schedule for rehabilitating the system and bringing it into optimal operating condition. A prioritized list for correction of any continuous dry weather overflows with schedule shall also be included.

d. Inspection and Maintenance

Summarize the regular inspection and maintenance of the combined sewer system including regulators to ensure that (1) deposition of solids does not cause obstructions which result in overflows; (2) continuous dry weather discharges are not occurring, and (3) regulators are in good working order and adjusted to minimize overflows. Identify response time between initial dry weather CSO discharge and corrective action; include a plan to reduce response time. The permittee shall submit as part of the plan of action, a written Operation and Maintenance (O&M) Plan designed to ensure the above items.

e. High Flow Management

Development of a high flow management plan which (1) maximizes the capacity of the combined sewer system for storage without causing backup or surcharge problems, and (2) enables a maximum amount of flow to be conveyed to the treatment plant without upsetting normal plant operations. Measures to be evaluated should include raising existing overflow weir levels and possible utilization of primary settling facilities for treatment if sufficient excess capacity is available, and automatic regulator and computerized control system.

f. Ordinance Revisions

Modification of the sewer ordinance where necessary to ensure prohibitions of (1) dry weather overflows, (2) construction of new combined sewers, except where sewer separation is infeasible (3) inflow sources in sanitary sewer tributary to the combined system, and (4) dumping of motor oil and excessive grease into the sewer system.