

FOR THE EASTERN DISTRICT OF PENNSYLVANIA

United States of America, et al.)
Plaintiffs)
)
Delaware River Basin Commission)
and)
Sierra Club, et al.,) Civil Action Nos.
Plaintiff-Intervenors) 78-1732
)
v.)
)
City of Philadelphia, et al.,)
Defendants)

City of Philadelphia,)
Plaintiffs)
)
v.) 78-878
)
Environmental Protection Agency,)
et al.,)
Defendants)

United States of America,)
Plaintiff)
)
Sierra Club, et al. and State)
of Maryland,) 78-1733
Plaintiff-Intervenors)
)
v.)
)
City of Philadelphia, et al.,)
Defendants)

City of Philadelphia,)
Plaintiff)
)
v.) 78-1851
)
)
Environmental Protection Agency,)
et al.,)
Defendants)

CONSENT DECREE

The above-captioned Complaints having been filed on March 15, 1978, May 24, 1978 and June 12, 1978 and Plaintiffs (the United States of America, at the request of the Environmental Protection Agency (EPA), and the Commonwealth of Pennsylvania), Plaintiff-intervenors (the State of Maryland, the Delaware River Basin Commission (DRBC) and the Sierra Club, et al.) and Defendants (the City of Philadelphia, et al.) by their respective attorneys having consented to entry of this Decree:

consent of the parties hereto, it is hereby ORDERED, ADJUDGED AND DECREED as follows:

I

This Court has jurisdiction of the subject matter of these actions. The Complaints filed in Civil Action Nos. 78-1732 and 78-1733 state claims upon which relief may be granted against the Defendants under §309 of the Federal Water Pollution Control Act, (FWPCA), 33 U.S.C. §1319, and against the Defendants under §105 of the Marine Protection Research and Sanctuaries Act, (MPRSA), 33 U.S.C. §1415.

II

This Decree shall apply to and be binding upon the Defendants, upon the officers, agents, servants, employees, successors and assigns of Defendants, and upon all persons, firms and corporations acting under, through or for, or in active concert or participation with Defendants.

III

NORTHEAST PLANT

Defendants shall design and construct treatment works at the Northeast Sewage Treatment Plant necessary to achieve compliance with the effluent limitations contained in Exhibit A attached hereto, in accordance with the following schedule:

A. On February 1, 1979, the Defendants shall complete detailed Critical Path Method ("CPM") analyses including network diagrams for the design and construction of the Northeast Plant facilities necessary to achieve compliance with the effluent limitations contained in Exhibit A attached hereto, and submit such analyses and networks to Plaintiffs. Such analyses and networks shall contain the levels of detail necessary to facilitate management of the entire project and the individual phases of the project, and show all steps which remain to be taken to complete the task, the order in which the steps must be completed, the interrelationship of steps, and an identification of those steps which control task completion. The analyses and networks shall include financial information so as to enable EPA and Pennsylvania Department of Natural Resources (DER) to manage grant funds, to manage the Defendants' submissions to EPA, DER and DRBC and to manage the subsequent administrative actions taken by the agencies.

B. With respect to the following project phases, the Defendants shall submit to EPA and DER biddable plans and specifications*, issue notices to proceed and complete construction by the dates specified below:

	Biddable Plans & Specifications*	Notice to Proceed	Completion*** Dates
Site Preparation - Trenching	--	--	August 1, 1979
Chlorination Facility	March 1, 1979	December 1, 1979	January 1, 1982
New Primary Tanks	March 1, 1979	March 1, 1980	December 1, 1982
Effluent Conduit	March 1, 1979	April 1, 1980	April 1, 1981
SURFACT System**	July 1, 1979	June 1, 1980	March 1, 1983
Final Compliance with Exhibit A			November 1, 1983

and specifications as used in this Consent Decree also include a complete and accurate grant application for Federal financial assistance under the FWPCA and the regulations promulgated under it, particularly 40 CFR 35.920-3.

**The "SURFACT System" includes the following elements: the "190 MGD SURFACT," the "60 MGD SURFACT" and the "New Final Tanks" as defined by Defendants in November, 1978.

***"Construction completion" is defined as the completion of the scope of work of all construction contracts awarded to implement each project phase.

C. The building of any structure or facility not mentioned in III.B. above shall not cause the delay of any phase of the project specified in III.B. above.

D. By April 15, 1979, EPA will determine if the SURFACT system is eligible for Federal financial assistance. In the event that the SURFACT System is not fundable, the Defendants shall commence on April 15, 1979 and submit to Plaintiffs by June 15, 1979 an accelerated design program which will enable them to meet the compliance date specified in III. E. below.

E. On or before November 1, 1983, and at all times thereafter, the Defendants shall have on line and in full operation those treatment facilities necessary to achieve compliance with the effluent limitations in Exhibit A and shall be achieving compliance with the effluent limitations and other requirements contained in Exhibit A attached hereto.

F. During the period from the entry of this Decree until November 1, 1983, Defendants shall not discharge from their Northeast Plant except in compliance with the effluent limitations and monitoring and reporting requirements set forth in Exhibit B attached hereto.

G. The Defendants shall prepare an environmental assessment statement on the proposal to compost and/or air dry sludge from Northeast lagoons.

IV

SOUTHEAST PLANT

Defendants shall design and construct treatment works at the Southeast Sewage Treatment Plant necessary to achieve compliance with the effluent limitations contained in Exhibit C attached hereto, in accordance with the following schedule:

A. No later than February 1, 1979, the Defendants shall complete detailed CPM analyses including network diagrams for the design and construction of the Southeast Plant facilities necessary to comply with the effluent limitations contained in Exhibit C attached hereto, and submit such analyses and network diagrams to Plaintiffs. Such analyses and network diagrams shall contain the levels of detail necessary to facilitate management of the entire project and the individual phases of the project, and show the steps which remain to be taken to complete the task, the order in which the steps must be completed, the interrelationship of steps, and an identification of those steps which control task completion. The analyses and networks shall include financial information so as to enable EPA and DER to manage grant funds, to manage Defendants' submissions to EPA, DER and DRBC and to manage the subsequent administrative actions taken by the agencies.

to EPA and DER biddable plans and specifications*, issue notices to proceed and complete contracts by the dates specified below:

	Biddable Plans & Specifications*	Notice to Proceed	Completion Dates****
Site Preparation	--	--	December 1, 1980
O ₂ System**	June 1, 1979	May 1, 1980	August 1, 1982
Final Sedimentation	March 1, 1979	April 1, 1980	January 1, 1982
Effluent Conduit***	August 1, 1979	July 1, 1980	July 1, 1982
Final Compliance with Exhibit C			April 1, 1983

*Biddable plans and specifications are defined in III. B. above.

**The "O₂ System" is defined as the "Aerations Tanks," "Compressor Building" and "Oxygen Supply System."

***The "Effluent Conduit" is defined as the "Effluent Conduit" and the "Effluent Pump Station" and the "Disinfection Facilities."

****"Construction completion" is defined in III.B. above.

C. The building of any structure or facility not mentioned in IV.B. above shall not cause the delay of any phase of the project specified in IV.B. above.

D. On or before April 1, 1983 and at all times thereafter, Defendants shall have on line and in full operation those treatment facilities necessary to achieve compliance with the effluent limitations in Exhibit C and shall be achieving compliance with effluent limitations and the other requirements contained in Exhibit C attached hereto.

E. During the period from the entry of this Consent Decree until April 1, 1983 Defendants shall not discharge from their Southeast Plant except in compliance with the effluent limitations and other requirements set forth in Exhibit D attached hereto.

F. In the event that the Defendants determine at the conclusion of the Infiltration and Inflow study, that they cannot remove 40 MGD of infiltration/inflow in order to achieve 100 MGD flow by April 1, 1983, Defendants shall commence an accelerated design and construction program to add facilities to the Southeast Plant to enable it to come into compliance with the effluent limitations in Exhibit C by April 1, 1983.

V

SOUTHWEST PLANT

A. On or before October 1, 1979 and at all times thereafter, Defendants shall have on line and in full operation those treatment facilities necessary to achieve compliance with the effluent limitations in Exhibit E and shall be achieving compliance with effluent limitations and monitoring and reporting requirements contained in Exhibit E attached hereto.

B. During the period from the entry of this Consent Decree until October 1, 1979, Defendants shall not discharge from the Southwest Plant except in compliance with the effluent limitations and monitoring and reporting requirements contained in Exhibit F attached hereto.

VI

A. Defendants shall comply with all EPA regulations, DER regulations, and DRBC regulations outlining the content of applications for grants and permits necessary to construct the sewage treatment plants described above, including solid waste permits where applicable. Defendants shall submit complete applications for such grants and permits by the dates specified above in paragraphs III & IV for submission of "biddable plans and specifications," as that term is defined in III.B. and IV.B. above.

B. EPA and DER agree to use all best efforts to review Defendants' grant and permit applications to assure timely construction of the sewage treatment plants according to the schedules contained in paragraphs III and IV above. If Defendants submit complete applications as defined in VI. A., EPA and DER shall review such applications within four months of such a complete submission. If more than four months is taken to review the application, upon application to and approval by the Court the milestones for that element which is directly affected by any such delay shall be extended by the amount of time beyond four months that it takes EPA and/or DER to review said applications. All dates not directly affected by the delay shall remain unchanged. If Defendants do not submit complete applications by the dates specified in paragraphs III and IV, then the four month review period will not commence until such a completed application is submitted. This paragraph applies only to those applications the submission dates of which are specified in paragraphs III, IV & VI above.

VII

Defendants shall not contest any provision of a National Pollutant Discharge Elimination System (NPDES) permit or permits issued or modified subsequent to the entry of this Consent Decree where said provision is also a term or condition of this Consent Decree. Nothing in this Consent Decree shall preclude the permit issuing agency from including in such permits any other terms and conditions necessary to comply with the FWPCA, Pennsylvania Clean Streams Law, applicable State, Federal and DRBC regulations promulgated thereunder or any other applicable Federal, State, local or other law.

VIII

A. The Defendant City of Philadelphia shall pay a civil penalty in the amount of _____ no later than 30 days from the entry of this Consent Decree. Said amount is a civil penalty under §309, 33 U.S.C. §1319 of the FWPCA in satisfaction of any and all violations of the FWPCA at the Northeast Plant up to the date of the entry of this Consent Decree.

B. The Defendant City of Philadelphia shall pay a civil penalty in the amount of _____ no later than 30 days from the entry of this Consent Decree. Said amount is a civil penalty under §309, 33 U.S.C. §1319 of the FWPCA in satisfaction of any and all violations of the FWPCA at the Southeast Plant up to the date of the entry of this Consent Decree.

C. The Defendant City of Philadelphia shall pay a civil penalty in the amount of _____ no later than 30 days from the entry of this Consent Decree. Said amount is a civil penalty under §309, 33 U.S.C. §1319 of the FWPCA in satisfaction of any and all violations of the FWPCA at the Southwest Plant up to the date of the entry of this Consent Decree.

D. Each of the other Defendants named in Civil Action No. 78-1732 shall pay a civil penalty in the amount of _____ no later than 30 days from the entry of this Consent Decree.

IX

A. In the event that Defendants fail to comply with any requirement other than final effluent limitations specified in paragraphs III, IV and V of this Consent Decree, Defendants shall pay a civil penalty to an escrow agent named by the United States of \$5000 per day for each day of violation. The Defendants shall pay this penalty within 30 days of the date upon which the requirement was to have been met and will continue to pay such penalty until Defendants come into compliance with the requirement. If Defendants demonstrate they meet the requirements stated in paragraph III. E., IV. D., and V. A., above, such penalty shall be rebated.

1. Any penalty paid to the designated escrow agent for Defendants' failure to achieve any requirement, other than final effluent limits, specified in paragraph III for the Northeast Plant shall be repaid to Defendants within 30 days of compliance, as defined in Exhibit A, if and only if Defendants achieve final effluent limitations by November 1, 1983.

2. Any penalty paid to the designated escrow agent for Defendants' failure to achieve any requirement, other than final effluent limits, specified in paragraph IV for the Southeast Plant shall be repaid to Defendants within 30 days of compliance as defined in Exhibit C, if and only if Defendants achieve final effluent limitations by April 1, 1983.

3. Any penalty paid to the designated escrow agent for Defendants' failure to achieve any requirement, other than final effluent limits, specified in paragraph V for the Southwest Plant shall be repaid to Defendants within 30 days of compliance as defined in Exhibit E, if and only if Defendants achieve final effluent limitations by October 1, 1979.

4. All penalties not repaid to the City shall be divided equally and paid to the United States Treasury and to the Pennsylvania Clean Streams Fund upon the failure of the City to achieve compliance with final effluent limitations as defined in Exhibits A, C and E. Such transfers shall be made 30 days after the City has failed to achieve final compliance as defined in Exhibits A, C and E.

B. In the event Defendants fail to comply with final effluent limitations imposed by paragraphs III, IV and V, in addition to any penalties due and owing under IX. A., Defendants shall pay a civil penalty of \$10,000 per day for every day of noncompliance until such effluent limitations are achieved as defined in Exhibits A, C and E, that is, three consecutive months of compliance with the requirements contained in Exhibits A, C and E. This \$10,000 penalty will be divided equally between the United States Treasury and the Pennsylvania Clean Streams Fund.

C. Payment of civil penalties under this paragraph shall be made to the United States Treasury and the Pennsylvania Clean Streams Fund on the 15th of the month following the month for which the penalty accrues.

X

Parties hereto stipulate that sludge produced by Philadelphia's Northeast, Southeast and Southwest Plants is "sewage sludge" within the meaning of 33 U.S.C. §1412a(b).

Defendants shall comply with the Marine Protection Research and Sanctuaries Act of 1972, as amended, and shall:

A. No later than January 1, 1981, cease all transportation of material for the purpose of dumping it in ocean waters.

1. During the period from June 1, 1978 through and including May 31, 1979, Defendants shall not dump more than 70,000,000 dry pounds of total solids in the ocean.

2. During the period from June 1, 1979 through and including May 31, 1980, Defendants shall not dump more than 40,000,000 dry pounds of total solids in the ocean.

3. During the period from June 1, 1980 through and including January 1, 1981, Defendants shall not dump more than 10,000,000 dry pounds of total solids in the ocean.

XI

Defendants shall develop and submit to EPA by July 1, 1979 an implementation plan designed to meet the abatement schedule set forth in paragraph X. B. above. This implementation plan shall include:

A. A schedule for the installation of dewatering capacity and a description of operational characteristics of the dewatering equipment which shall be in accordance with the following:

1. No later than June 1, 1979 the Defendants shall have an on-line a rated dewatering capacity of 330 dry tons a day and an operational dewatering capacity of not less than 250 dry tons per day or 190 million dry pounds per year.

2. No later than March 1, 1980 the Defendants shall have an on-line a rated dewatering capacity of 410 tons a day and an operational dewatering capacity of not less than 310 dry tons per day or 226 million dry pounds per year.

B. A schedule for diverting sludge to ultimate land-based disposal sites in accordance with the following:

1. For the period June 1, 1978 through May 31, 1979 the Defendants shall direct to land-based alternatives not less than 56 million pounds of sludge solids on a dry weight basis as described below.

2. For the period June 1, 1979 through May 31, 1980 the Defendants shall direct to land-based alternatives not less than 100 million pounds of sludge solids on a dry weight basis as described below.

3. For the period June 1, 1980 to January 1, 1981 the Defendants shall direct to land-based alternatives not less than 75 million pounds of sludge solids on a dry weight basis as described below.

4. By January 1, 1981, the Defendants shall divert all daily sludge production to land-based alternatives.

C. By the dates identified in paragraph XI. B. above, a schedule to divert all sludge generated on a daily basis at all three sewage treatment plants to land-based alternatives by any one of the following or by a combination of any of the following:

1. Liquid sludge application of digested sludge;

land-based alternatives.

Land disposal under C. 1., C. 2. and C. 3. above shall be in accordance with all local, State and Federal laws and DRBC regulations. The method and amount of disposal of such sludge shall be reported to EPA and DER on a quarterly basis using dry pounds as the unit of measure in all discussions. Such quarterly reports shall specify for the next three months the amounts to be diverted and the alternative to which each amount will be diverted and the basis for the Defendants' projection.

D. A schedule for interim facilities for composting, curing and storing all sludge generated on a daily basis through January 1, 1981 including the following:

1. Defendants shall retain the existing interim composting capacity at the Northeast site of 35 dry tons per day and at the Southwest site of 50 dry tons per day.

2. Defendants shall submit a plan no later than March 30, 1979 to EPA and DER designating interim composting, curing and storage sites (for 120 day storage) in addition to the existing composting sites identified in paragraph 1 having a capacity of handling at least 75 dry tons per day of sludge solids (55 million dry pounds per year) which shall be operational by September 1, 1980.

3. Defendants' interim composting, curing and storage plan shall raise the total composting capacity of all plants to a level sufficient to compost all sludge generated at the three sewage treatment plants by September 1, 1980.

4. Defendants' plan shall comply with all DER Solid Waste Management requirements including those regarding permits and regarding notice of the ultimate disposition of any stored sludge.

5. Defendants' plan shall identify by March 30, 1979 all landfills within 100 miles of the Defendants' sewage treatment plants which are ready, willing and legally able to take sludge from the Defendants' plants including:

- a. name of the landfills;
- b. their locations;
- c. whether or not they have permits to take sludge of the character and type generated by Defendants' plants;
- d. the amount which each landfill can take from Defendants' plants;
- e. all contracts or other documents committing the landfills to take Defendants' sludge, the quantities to be accepted and the length of time over which such quantities can be accepted.

E. A schedule for construction of permanent sludge recycling facilities including the following milestones:

1. By January 1, 1979, Defendants shall submit all material required by EPA and DER as preconditions for a grant award for Phase I of the Southwest Sludge Recycle Center.

2. By February 15, 1979, Defendants shall issue Notice to Proceed on Phase One of the Southwest Sludge Recycle Center.

3. By July 15, 1979 Defendants shall have on line permanent, operational capacity to compost, cure and store for 120 days, 60 tons per day (44 million dry pounds a year) at the Southwest Sludge Recycle Center site, and the total, permanent, operational composting, curing and 120 day storage capability at the Southwest Plant shall be not less than 110 tons per day (80 million dry pounds a year).

XII

Defendants shall submit a report to EPA and DER by April 1, 1979 which shall include:

A. A detailed projection of the amount of sludge in dry pounds which can be marketed at retail or wholesale outlets for the periods from June 1, 1979 to June 1, 1980 and from June 1, 1980 to June 1, 1981.

B. A detailed projection of the amount of sludge in dry pounds which can be distributed through the giveaway program during the periods specified in XII. A.

The end-user categories shall include but not be limited to:

1. Public agencies (military installations, schools, roads, parks);
2. Private firms (horticultural, turf farms, golf courses, colleges, hospitals, metro-rail facilities;
3. Private residences (new construction);
4. Agricultural activities;
5. Land reclamation activities;

The report shall discuss major uses of compost by end users such as, soil amendment, topsoil additive, mulch, etc.

XIII

A. The Defendants shall utilize or dispose of sewage sludge, which is diverted from the ocean, in an environmentally sound manner and shall use its best efforts to place the following amounts of sludge in the following programs:

1. Liquid Application Program - 10 million dry pounds per year in calendar year 1980;
2. Philorganic Sale Program - 40 million dry pounds per year in calendar year 1980;
3. Strip Mine Reclamation - 40 million dry pounds per year in calendar year 1980;
4. Giveaway Program - 20 million dry pounds per year in calendar year 1980;
5. Park Improvement and Miscellaneous - 6 million dry pounds in calendar year 1980;
6. ECOROCK Program - 6-12 million dry pounds in calendar year 1980;
7. Landfill - 20 million dry pounds per year or more depending on availability of other options

B. By April 1, 1979, Defendants shall submit a contingency plan including but not limited to:

1. Identification of trenching sites capable of handling the sludge production of at least one full year;
2. Identification, plans for designation of and a schedule for construction of additional sites in the greater Philadelphia area for distributing sludge in the giveaway program;
3. Identification of land in need of reclamation other than strip mined land;
4. Identification, designation and purchase, if necessary, of sites on which Defendants could store at least one year's production of daily generated sludge.

XIV

Defendants shall not contest any provisions of a MPRSA permit or permits issued or modified subsequent to entry of this Consent Decree where said provision is also a term or condition of this Consent Decree. Nothing in this Consent Decree shall preclude the permit issuing agency from including in such permits any other terms and conditions necessary to comply with the MPRSA and any applicable regulations promulgated thereunder or with any other applicable Federal, State or local law.

Ocean dumping permits issued to Philadelphia by EPA shall not be inconsistent with this Consent Decree, except insofar as EPA may determine that ocean dumping can be abated in an environmentally safe manner more quickly than the abatement schedule set forth herein.

XV

A. The Defendants shall pay a civil penalty in the amount of \$225,000 no later than 30 days from the entry of this Consent Decree.

B. Defendants agree to pay civil penalty of \$10,000 per day to the United States for every day beyond December 31, 1980, that ocean dumping of sewage sludge continues, with payment due on the last day of each month.

C. Defendants shall pay a civil penalty to the United States of \$50,000 per day for every day beyond December 31, 1981 that ocean dumping of sewage sludge continues, with payment due on the last day of each month.

D. With regard to violations of the abatement schedule in paragraph X above:

1. Defendants shall pay an additional civil penalty to the United States of one dollar (\$1.00) per pound for every pound in excess of 70,000,000 pounds of sewage sludge ocean dumped between June 1, 1978 and May 31, 1979, with payment due by June 30, 1979.

2. Defendants shall pay an additional civil penalty to the United States of one dollar (\$1.00) per pound for every pound in excess of 40,000,000 pounds of sewage sludge ocean dumped between June 1, 1979 and May 31, 1980, with payment due by June 30, 1980.

3. Defendants shall pay an additional civil penalty of one dollar (\$1.00) per pound for every pound in excess of over 10,000,000 pounds of sewage sludge ocean dumped between June 1, 1980 and January 1, 1981, with payment due by January 31, 1981.

E. Defendants shall pay an additional civil penalty of \$5,000 per day for every day beyond the dates specified in paragraph X. D. 1. that Defendants do not have sludge dewatering capacity as required by said paragraph X. D. 1. unless the conditions of paragraph XVI are met.

XVI

If any event occurs which causes or may cause delays in the achievement of the actions called for in this Consent Decree, Defendants shall notify Plaintiffs in writing within five (5) calendar days, of the delay or anticipated delay, as appropriate, describing in detail the precise cause or causes of the delay, the anticipated length of delay, the measures taken and to be taken by Defendants to prevent or minimize the delay, and the timetable by which these measures will be implemented. Defendants will adopt all reasonable measures to minimize any such delay. Upon proof satisfactory to the EPA Region III Enforcement Division Director that the delay, or anticipated delay, has been or will be caused solely by circumstances beyond the control of the Defendants, the time for performance hereunder will be extended, for a period equal to the delay resulting from such circumstances, or a lesser amount of time, if appropriate. Increased costs or expenses associated with implementation of the actions called for in this Decree shall not be considered a circumstance beyond the control of Defendants. In all instances Defendants shall have the burden of proving that the delay is caused by circumstances beyond their control. Defendants shall be entitled to the benefits of this paragraph only if they submit a written report within thirty (30) days of the occurrence of each event to Plaintiffs, which submission shall include all related documentation, such as third party correspondence and a notarized affidavit from a responsible official specifying each of the excuses and the efforts of Defendants to perform their obligations on time. Failure by Defendants to comply with the requirements of this paragraph specifically shall render this paragraph void and of no effect as to the particular incident involved.

XVII

A. The Defendants shall dismiss all administrative appeals pending before any of the party agencies to this Decree which are related to the matters herein.

B. The Parties agree that this Decree is final settlement of all claims and defenses raised in Civil Action No. 78-1732, 78-1733, 78-787 and 78-1851.

XVIII

The Defendants agree to pay to the Public Interest Law Center of Philadelphia reasonable attorney and expert witness fees for its participation in this litigation and for its participation in NPDES adjudicatory hearing PA-AH-0052-A. The amount of the reasonable attorney and expert witness fees shall be agreed upon between the Defendants and the Law Center within two weeks of the signing of this Consent Decree. If no agreement can be reached within this time, the Law Center shall provide proper documentation of the hours expended and costs incurred to the Court and both parties agree to be bound by the Court's decision on the amount of fees to be awarded.

XIX

This Consent Decree is not, and shall not be construed to be a permit under any law, nor shall it in any way relieve the Defendants of any obligation imposed by or under any law or permit which is not inconsistent with this Decree.

Violation of any law or regulation which would render the Defendants ineligible for federal financial assistance will not result in any extensions of any provisions of this Consent Decree.

XX

The Court retains jurisdiction of this Decree for the purpose of enabling any party to apply to the Court for such further orders as may be necessary to enforce this Decree.

Entered this _____ day of _____, 1979.

United States District Judge

Approved for entry without further notice.

Defendants

UNITED STATES OF AMERICA

By: _____
Mayor

By: _____
Regional Administrator
United States Environmental
Protection Agency, Region III

By: _____
James W. Moorman, Chief
Lands and Natural Resources
Division, United States
Department of Justice

By: _____
Managing Director

Peter F. Vaira
United States Attorney for the
Eastern District of Pennsylvania

and By: _____
City Solicitor

By: _____
Robert Forster
Assistant United States Attorney

John E. Varnum
Assistant Attorney General
Land and Natural Resources Division
United States Department of Justice

By: _____
Stephen Ramsey
Assistant Attorney General
Land and Natural Resources Division
United States Department of Justice

THE COMMONWEALTH OF PENNSYLVANIA

By: _____
Secretary
Department of Environmental
Resources

By: _____
Maureen A. Brennan
Attorney, Region III
Environmental Protection Agency

and By: _____
Assistant Attorney General

By: _____
James D. Bunting
Attorney, Office of Water Enforcement
Environmental Protection Agency

By: _____
Richard Smith
Attorney, Office of Water Enforcement
Environmental Protection Agency

PLAINTIFF-INTERVENORS:

By: _____
Maryland

By: _____
Steven Sachs, Attorney General
Thomas Demming

By: _____
Delaware River Basin Commission

By: _____
Albert Slap attorney for
Sierra Club, et al.

NORTHEAST PLANT
(Final Limitations)

I. The following requirements shall apply from November 1, 1983 forward:

A. The 30 consecutive day average quantity of effluent discharged from the wastewater treatment facility shall not exceed 250 million gallons per day (mgd) or 946,250 cubic meters per day.

B. The quality of effluent shall be limited at all times as follows:

Parameter	Average Effluent Concentrations		Average Effluent Loadings	
	30 Consecutive Day Period	7 Consecutive Day Period	30 Consecutive Day Period lbs/day	kg/day
Biochemical Oxygen Demand (5-day)	20 mg/l	30 mg/l	42,400	19,250
Suspended Solids	20 mg/l	30 mg/l	40,530	18,380
Fecal Coliform	200/100 ml	400/100 ml	-----	
pH	Within limits of 6.0 - 9.0 at all times		-----	
Arsenic	0.1 mg/l	0.2 mg/l	208	95
Cadmium	0.02 mg/l	0.04 mg/l	42	19
Chromium (hexavalent)	0.10 mg/l	0.20 mg/l	208	95
Copper	0.20 mg/l	0.40 mg/l	416	190
Lead	0.10 mg/l	0.20 mg/l	208	95
Mercury	0.01 mg/l	0.02 mg/l	21	9.5
Selenium	0.02 mg/l	0.04 mg/l	42	19
Zinc	0.60 mg/l	1.20 mg/l	1248	570

(a) Carbonaceous Oxygen Demand

The arithmetic mean of the values for effluent samples collected in a period of 30 consecutive days shall not exceed 72,500 pounds per day.

(b) Biochemical Oxygen Demand (5-day)

The arithmetic mean of the values for effluent samples collected in a period of 30 consecutive days shall not exceed 14 percent of respective arithmetic mean of influent samples during the same time period.

(c) Suspended Solids

The arithmetic mean of the values for effluent samples collected in a period of 30 consecutive days shall not exceed 10 percent of respective arithmetic mean of influent samples during the same time period.

The above averages, other than for fecal coliform bacteria, are based on the arithmetic mean of the effluent samples collected during the specified period. The above average for fecal coliform bacteria is the geometric mean of samples collected in the specified period.

C. The City shall monitor at the Northeast Plant and submit to the Plaintiffs monitoring reports in accordance with the requirements specified in Exhibit G, paragraphs B, C, D, E and F and shall submit other reports according to Exhibit G, paragraph G.

D. "Compliance with final effluent limitations" means that commencing on November 1, 1983 and continuing for three consecutive months thereafter, the Northeast Sewage Treatment Plant shall meet the treatment requirements stated in this Exhibit. "Compliance" with monitoring and other reporting requirements shall mean carrying out the instructions contained in Exhibit G. "Compliance" with schedule milestones shall mean performing the required task (tasks) on or prior to the date specified in this Consent Decree.

NORTHEAST PLANT
(Interim Limitations)

I. The following requirements shall apply during the period from the entry of this Decree until November 1, 1983:

A. The 30 consecutive day average quantity of effluent discharged from the wastewater treatment facility shall not exceed 224 million gallons per day (mgd) or 848,000 cubic meters per day.

B. The quality of effluent shall be limited at all times as follows:

Parameter	Average Effluent Concentrations		Average Effluent Loadings	
	30 Consecutive Day Period	7 Consecutive Day Period	30 Consecutive Day Period lbs/day	kg/day
Biochemical Oxygen Demand (5-day)	100 mg/l	150 mg/l	_____	_____*
Suspended Solids	110 mg/l	165 mg/l	205,000	92,500
pH	Within limits of 6.0 - 9.0 at all times		-----	

*The discharge from all three plants combined shall not exceed 332,000 lbs/day of BOD₅ until the expansion and upgrading of the three facilities are completed and placed in operation.

The above averages are based on the arithmetic mean of the effluent samples collected during the specified period.

C. During the period from the entry of this Decree until November 1, 1983 the efficiency of the Northeast Plant shall be in accordance with the following:

1. In no case shall the arithmetic mean of the effluent values of the biochemical oxygen demand (five day) discharged during a period of 30 consecutive days exceed 40% of the respective arithmetic mean of the influent values for this parameter during the same period except as specifically authorized by the permitting authority.

2. In no case shall the arithmetic mean of the effluent values of the suspended solids discharge during a period of 30 consecutive days exceed 35% of the respective arithmetic mean of the influent values for this parameter during the same period except as specifically authorized by the permitting authority.

D. The City shall monitor at the Northeast Plant and submit to the Plaintiffs monitoring reports in accordance with the requirements specified in Exhibit G, paragraphs A, C, D, E and F and shall submit other reports according to Exhibit G, paragraph G.

E. "Compliance with interim effluent limitations" means that between entry of the Decree and November 1, 1983 the Northeast Sewage Treatment Plant shall meet the treatment requirements stated in this Exhibit. "Compliance" with monitoring and other reporting requirements shall mean carrying out the instructions contained in Exhibit G. "Compliance" with schedule milestones shall mean performing the required task (tasks) on or prior to the date specified in this Consent Decree.

EXHIBIT C

SOUTHEAST PLANT
(Final Limitations)

I. The following requirements shall apply from April 1, 1983 forward:

A. The 30 consecutive day average quantity of effluent discharged from the wastewater treatment facility shall not exceed 140 million gallons per day (mgd) or 529,900 cubic meters per day.

B. The quality of effluent shall be limited at all times as follows:

Parameter	Average Effluent Concentrations		Average Effluent Loadings	
	30 Consecutive Day Period	7 Consecutive Day Period	30 Consecutive Day Period lbs/day	kg/day
Biochemical Oxygen Demand (5-day)	17 mg/l	25 mg/l	19,650	8,920
Suspended Solids	20 mg/l	30 mg/l	23,320	10,580
Fecal Coliform	200/100 ml	400/100 ml	-----	
pH	Within limits of 6.0 - 9.0 at all times		-----	
Arsenic	0.1 mg/l	0.2 mg/l	116	53
Cadmium	0.02 mg/l	0.04 mg/l	23	10.5
Chromium (hexavalent)	0.10 mg/l	0.20 mg/l	116	53
Copper	0.20 mg/l	0.40 mg/l	232	106
Lead	0.10 mg/l	0.20 mg/l	116	53
Mercury	0.01 mg/l	0.02 mg/l	11.6	5.3
Selenium	0.02 mg/l	0.04 mg/l	23	10.5
Zinc	0.60 mg/l	1.20 mg/l	700	318

(a) Carbonaceous Oxygen Demand

The arithmetic mean of the values for effluent samples collected in a period of 30 consecutive days shall not exceed 33,600 pounds per day.

(b) Biochemical Oxygen Demand (5-day)

The arithmetic mean of the values for effluent samples collected in a period of 30 consecutive days shall not exceed 14 percent of respective arithmetic means of influent samples during the same time period.

(c) Suspended Solids

The arithmetic mean of the values for effluent samples collected in a period of 30 consecutive days shall not exceed 10 percent of respective arithmetic means of influent samples during the same time period.

The above averages, other than for fecal coliform bacteria, are based on the arithmetic mean of the effluent samples collected during the specified period. The above averages for fecal coliform bacteria is the geometric mean of samples collected in the specified period.

C. The City shall monitor at the Southeast Plant and submit to the Plaintiffs monitoring reports in accordance with the requirements specified in Exhibit G, paragraphs B, C, D, E and F and shall submit other reports according to Exhibit G, paragraph G.

D. "Compliance with final effluent limitations" means that commencing on April 1, 1983 and continuing for three consecutive months thereafter the Southeast Sewage Treatment Plant shall meet the treatment requirements stated in this Exhibit. "Compliance" with monitoring and other reporting requirements shall mean carrying out the instructions contained in Exhibit G. "Compliance" with schedule milestones shall mean performing the required task (tasks) on or prior to the date specified in this Consent Decree.

EXHIBIT D

SOUTHEAST PLANT
(Interim Limitations)

I. The following requirements shall apply during the period from the entry of the Decree until April 1, 1983:

A. The 30 consecutive day average quantity of effluent discharged from the wastewater treatment facility shall not exceed 140 million gallons per day (mgd) or 530,000 cubic meters per day.

B. The quality of effluent shall be limited at all times as follows:

Parameter	Average Effluent Concentrations		Average Effluent Loadings	
	30 Consecutive Day Period	7 Consecutive Day Period	30 Consecutive Day Period	
			lbs/day	kg/day
Biochemical Oxygen Demand (5-day)*	140 mg/l	200 mg/l		***
Suspended Solids**	110 mg/l	165 mg/l	128,000	57,800
pH	Within limits of 6.0 - 9.0 of all times		-----	

The above averages are based on the arithmetic mean of the effluent samples collected during the specified period.

*In no case shall the arithmetic mean of the effluent values of the biochemical oxygen demand (five day) discharged during a period of 30 consecutive days exceed 75 percent of the respective arithmetic mean of the influent values for these parameters during the same time period except as specifically authorized by the permitting authority.

**In no case shall the arithmetic mean of the effluent values of the suspended solids discharged during a period of 30 consecutive days exceed 65 percent of the respective arithmetic mean of the influent values for this parameter during the same time period except as specifically authorized by the permitting authority.

***The discharge from all three plants combined shall not exceed 332,000 lbs/day of BOD₅ until the expansion and upgrading of the three facilities are completed and placed in operation.

C. The City shall monitor at the Southeast Plant and submit to the Plaintiffs monitoring reports in accordance with the requirements specified in Exhibit G, paragraphs A, C, D, E and F and shall submit other reports according to Exhibit G, paragraph G.

D. "Compliance with interim effluent limitations" means that between entry of the Decree and April 1, 1983 Southeast Sewage Treatment Plant shall meet the treatment requirements stated in this Exhibit. "Compliance" with monitoring and other reporting contained in Exhibit G. "Compliance" with schedule milestones shall mean performing the required task (tasks) on or prior to the date specified

SOUTHWEST PLANT
(Final Limitations)

I. The following requirements shall apply from October 1, 1979 forward:

A. The 30 consecutive day average quantity of effluent discharged from the wastewater treatment facility shall not exceed 210 million gallons per day (mgd) or 794,850 cubic meters per day.

B. The quality of effluent shall be limited at all times as follows:

Parameter	Average Effluent Concentrations		Average Effluent Loadings	
	30 Consecutive Day Period	7 Consecutive Day Period	30 Consecutive Day Period lbs/day	kg/day
Biochemical Oxygen Demand (5-day)	12 mg/l	18 mg/l	21,650	9,820
Suspended Solids	20 mg/l	30 mg/l	34,985	15,870
Fecal Coliform	200/100 ml	400/100 ml	-----	
pH	Within limits of 6.0 - 9.0 at all times		-----	
Arsenic	0.1 mg/l	0.2 mg/l	175	79
Cadmium	0.02 mg/l	0.04 mg/l	35	16
Chromium (hexavalent)	0.10 mg/l	0.20 mg/l	175	79
Copper	0.20 mg/l	0.40 mg/l	350	158
Lead	0.10 mg/l	0.20 mg/l	175	79
Mercury	0.01 mg/l	0.02 mg/l	17.5	7.9
Selenium	0.02 mg/l	0.04 mg/l	35	16
Zinc	0.60 mg/l	1.20 mg/l	1050	474

(a) Carbonaceous Oxygen Demand

The arithmetic mean of the values for effluent samples collected in a period of 30 consecutive days shall not exceed 37,020 pounds per day.

(b) Biochemical Oxygen Demand (5-day)

The arithmetic mean of the values for effluent samples collected in a period of 30 consecutive days shall not exceed 10.75 percent of respective arithmetic mean of influent samples during the same time period.

(c) Suspended Solids

The arithmetic mean of the values for effluent samples collected in a period of 30 consecutive days shall not exceed 10 percent of respective arithmetic mean of influent samples during the same time period.

The above averages, other than for fecal coliform bacteria, are based on the arithmetic mean of the effluent samples collected during the specified period. The above average for fecal coliform bacteria is the geometric mean of samples collected in the specified period.

C. The City shall monitor at the Southwest Plant and submit to the Plaintiffs monitoring reports in accordance with the requirements specified in Exhibit G, paragraphs B, C, D, E and F and shall submit other reports according to Exhibit G, paragraph G.

D. "Compliance with final effluent limitations" means that commencing on October 1, 1979 and continuing for three consecutive months thereafter, the Southwest Sewage Treatment Plant shall meet the treatment requirements stated in this Exhibit. "Compliance" with monitoring and other reporting requirements shall mean carrying out the instructions contained in Exhibit G. "Compliance" with schedule milestones shall mean performing the required task (tasks) on or prior to the date specified in this Consent Decree.

SOUTHWEST PLANT
(Interim Limitations)

I. The following requirements shall apply during the period from the entry of this Decree until October 1, 1979:

A. The 30 consecutive day average quantity of effluent discharged from the wastewater treatment facility shall not exceed 210 million gallons per day (mgd) or 632,000 cubic meters per day.

B. The quality of effluent shall be limited at all times as follows:

Parameter	Average Effluent Concentrations		Average Effluent Loadings	
	30 Consecutive Day Period	7 Consecutive Day Period	30 Consecutive Day Period lbs/day kg/day	
Biochemical Oxygen Demand (5-day)*	90 mg/l	135 mg/l	_____	_____ ***
Suspended Solids**	165 mg/l	210 mg/l	230,000	103,800
pH	Within limits of 6.0 - 9.0 at all times		-----	

The above averages are based on the arithmetic mean of the effluent samples collected during the specified period.

*In no case shall the arithmetic mean of the effluent values of the biochemical oxygen demand (five day) discharged during a period of 30 consecutive days exceed 75 percent of the respective arithmetic mean of the influent values for these parameters during the same time period except as specifically authorized by the permitting authority.

**In no case shall the arithmetic mean of the effluent values of the suspended solids discharged during a period of 30 consecutive days exceed 65 percent of the respective arithmetic mean of the influent values for this parameter during the same time period except as specifically authorized by the permitting authority.

***The discharge from all three plants combined shall not exceed 332,000 lbs/day of BOD₅ until the expansion and upgrading of the three facilities are completed and placed in operation.

C. The City shall monitor at the Southeast Plant and submit to the Plaintiffs monitoring reports in accordance with the requirements specified in Exhibit G, paragraphs A, C, D, E and F and shall submit other reports according to Exhibit G, paragraph G.

D. "Compliance with interim effluent limitations" means that commencing between entry of the Decree and October 1, 1979 the Southwest Sewage Treatment Plant shall meet the treatment requirements stated in this Exhibit. "Compliance with monitoring and other reporting requirements shall mean carrying out the instructions contained in Exhibit G. "Compliance" with schedule milestones shall mean performing the required task (tasks) on or prior to the date specified in this Consent Decree.

EXHIBIT G

MONITORING AND REPORTING REQUIREMENTS

A. The City shall monitor each of its three sewage treatment plants, to determine compliance with the conditions specified in Exhibits B, D and F, in accordance with the following:

<u>Parameter</u>	<u>Frequency</u>	<u>Type of Sample</u>
Total Flow (mgd)	Continuous	Recorded
BOD ₅ (mg/l)	one per day	influent and effluent 24 hour composite
Suspended Solids (mg/l)	one per day	influent and effluent 24 hour composite
pH	daily	grab

B. The City shall monitor each of its three sewage treatment plants, to determine compliance with the conditions specified in Exhibits A, C and E, in accordance with the following:

<u>Parameter</u>	<u>Frequency</u>	<u>Type of Sample</u>
Total Flow (mgd)	Continuous	Recorded
BOD ₅ (mg/l)	one per day	24 hour composite
Suspended Solids (mg/l)	one per day	24 hour composite
Fecal Coliform	one per day	grab
pH	daily	grab
*NH ₃ -N, TKN, NO ₃ -N	one per week	24 hour composite
Arsenic, Cadmium, Chromium (hexavalent), Copper, Lead, Mercury, Selenium, Zinc	one per week	24 hour composite
*CBOD with recordings of CBOD readings at seven times such as 3, 5, 7, 10, 13, 17, 20 and 30 days	one per week	24 hour composite
Barium	"	24 hour composite
Silver	"	"
Flourides	"	"
Aldrin/Dieldrin	"	"

Endrin	"	"
Toxaphene	"	"
Benzidine	"	"
PCBs	"	"
Phenol	"	"
Trihalomethanes	"	"
Bis-2-Chloroethylether	"	"

65 toxic substances included in the NRDC v. Train, 8 ERC 2120 (D.D.C. 1976), Consent Decree to the extent not covered by the above list.

nitrates

any chemicals, metals or other toxic substances, involved in spills or intentional dumping episodes to the sewer system from October 18, 1972 to the present.

*Record average daily flow on actual date of sampling.

C. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored parameter. The effluent BOD₅ sample shall be collected at a location immediately preceding disinfection, where disinfection is practiced. Other effluent samples shall be collected at or as near as possible to the point of discharge.

D. Sampling and Analysis Methods. Test procedures for analysis of pollutants shall conform to regulations published pursuant to Section 304(g) of the Act under which such procedures may be required. These regulations (40 CFR Part 136) were published on October 16, 1973 and were subsequently amended on December 1, 1976.

E. Self-Monitoring and Reporting Requirements. The City shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the discharge. Monitoring data required by this Consent Decree shall be summarized on an average monthly basis. Reports of these monthly values are to be submitted quarterly. Quarterly reports will be required for periods beginning on the first day of January, April, July, and October. A Discharge Monitoring Report Form (EPA Form 3320-1), properly completed and signed by the treatment plant operator in responsible charge must be submitted within 28 days after the end of each quarterly report period. Notification of the designation of the responsible operator must be submitted to the EPA by the City within 60 days after the signing of this Consent Decree and from time to time thereafter as the operator is replaced. The Discharge Monitoring Report Form shall be sent to the following:

Regional Administrator
ATTN: Philadelphia Coordinator
United States Environmental Protection Agency
Region III
Sixth and Walnut Streets
Philadelphia, Pennsylvania 19106

Defendants shall submit reports currently submitted to PaDER and Plaintiff Sierra Club on a monthly basis. Reports to the Sierra Club shall be sent to:

Environmental Project Director
1315 Walnut Street, 16th Floor
Philadelphia, Pennsylvania 19107

City does not comply with or will be unable to comply with any effluent limitation specified in this Consent Decree, or should any unusual or extraordinary discharge of wastes occur from the facilities herein identified, the City shall immediately notify the EPA by telephone at 597-9898 and provide the EPA with the following information in accordance with the paragraph above, in writing within 5 days of such notification:

1. A description of the non-complying discharge including its location, nature, cause, duration, quantity of flow, and impact upon the receiving waters.
2. Cause of non-compliance.
3. Anticipated time the condition of non-compliance is expected to continue or if such condition has been corrected, the duration of the period of non-compliance.
4. Steps taken by the City to reduce and eliminate the non-complying discharge.
5. Steps to be taken by the City to prevent recurrence of the condition of non-compliance.

The City shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from non-compliance with any effluent limitation specified in this Consent Decree. The City should also provide accelerated or additional monitoring as necessary to estimate the nature and impact of the non-complying discharge.

G. Reports on compliance or non-compliance with construction milestones. No later than fourteen (14) calendar days following the dates identified in this Consent Decree for the achievement of any milestone related to treatment construction or ocean abatement, including but not limited to commencement, completion or demonstration of a method or program, commencement or completion of design or construction, selection of a method of program, award of contract, issuance of notice to proceed, or attainment and maintenance of a treatment requirement, the City shall submit a written milestone report as follows:

1. If the milestone has been achieved, the report shall include:
 - a. the date such milestone was achieved and
 - b. any problems which may occur to cause delay in achieving any future milestone.
2. If the milestone has not been achieved, the report shall include:
 - a. a complete description of any factors which explain the failure including all necessary documentation;
 - b. a description of the actions taken or proposed to be taken to comply with the missed milestone;
 - c. the date by which the milestone will be achieved;
 - d. a description of any future milestone which may be affected by the present failure and
 - e. the date by which any affected future milestone(s) will be achieved and
 - f. the actions that could be taken to prevent violations of future milestones.

H. EPA, PaDER, and Defendants agree that they will each designate a single coordinator who will be responsible for directing all documents to the proper person for processing and who will track the progress of item in this Consent Decree. Each coordinator will be responsible for assuring that each group exerts best efforts to comply with all terms of this Consent Decree including compliance with all reporting requirements in this Exhibit.